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August 31, 2010

VIA HAND DELIVERY

Hon. Mary Freeman, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

filed electronically in docket office on 08/31/10

Re: *Petition for Arbitration of Interconnection Agreement Between BellSouth Telecommunications, Inc. dba AT&T Tennessee and Sprint Spectrum L.P., Nextel South Corp., and NPCR, Inc. dba Nextel Partners*
Docket No. 10-00042

Petition for Arbitration of Interconnection Agreement Between BellSouth Telecommunications, Inc. dba AT&T Tennessee and Sprint Communications Company, L.P.
Docket No. 10-00043

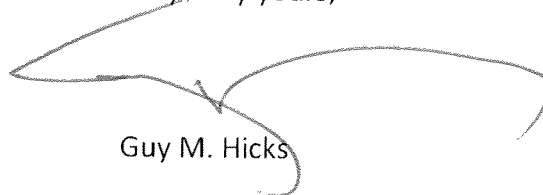
Dear Chairman Freeman:

Enclosed for filing in the referenced consolidated docket are the original and four copies each of Direct Testimony on behalf of AT&T Tennessee from the following witnesses:

James Hamiter
Scott McPhee
Frederick Christensen
Patricia Pellerin
Scot Ferguson.

Copies are being provided to counsel of record.

Very truly yours,



Guy M. Hicks

CERTIFICATE OF SERVICE

I hereby certify that on August 31, 2010, a copy of the foregoing document was served on the following, via the method indicated:

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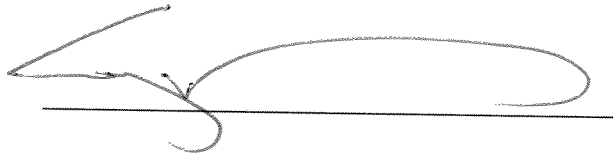
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AT&T TENNESSEE

DIRECT TESTIMONY OF JAMES W. HAMITER

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NO. 10-00042 AND DOCKET NO. 10-00043

AUGUST 31, 2010

ISSUES

II.C(2), II.C(3),
II.D(1), II.D(2),
II.F(1), II.F(2),
II.F(3), II.F(4),
II.G, II.H(1),
II.H(2), II.H(3),
III.A.4(3), V.B

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is James W. Hamiter. I am an Associate Director – Network Regulatory in AT&T's Network Planning and Engineering Department. My business address is 308 S. Akard St., Dallas, Texas 75202.

Q. WHAT ARE YOUR JOB RESPONSIBILITIES?

A. My primary responsibility is to represent the AT&T-owned Incumbent Local Exchange Carriers ("ILECs") in the development of network policies, procedures, and plans from a regulatory perspective. I present, explain, and justify AT&T's network interconnection positions before regulatory and legislative authorities. I represent those companies' network interests in negotiations with Competing Local Exchange Carriers ("CLECs"), Wireless Service Providers ("WSPs" or "CMRS providers"), and Paging Service Providers. I also provide information to the various network organizations regarding any regulatory issues or changes and direct these organizations to make the changes to methods, procedures and policies that are necessary for AT&T to comply with any regulatory changes.

Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.

A. I graduated from the University of Houston in Houston, Texas, in 1977 with a Bachelor of Science Degree in Technology with a concentration in Electricity and Electronics, and a minor in Math and Physics. As an AT&T employee, I have received training on switch operations and translations, transmission and facility equipment operations, and special service and message trunk forecasting and

1 provisioning. I have developed and held training seminars for my subordinates and
2 other employees on various network, trunking, and network administration processes.

3 I have over 33 years of network-related experience in the telecommunications
4 industry. This experience includes more than 23 years with Southwestern Bell
5 Telephone Company ("SWB") in Houston, Texas, before I transferred to my present
6 position. I began my career with SWB in January 1977. During my tenure with
7 SWB, I held management positions in the Traffic, Network Planning, Circuit
8 Administration Center, Network Operations, and Trunk Planning and Engineering
9 departments and work groups. Some of my duties included inter-departmental and
10 inter-company coordination, in various capacities, on major telecommunications
11 projects; network and dial administration; inter-office facility planning; special
12 service forecasting; and inter-office message trunk servicing and forecasting. From
13 June 2000 through May 2002, I presided over the CLEC and SWB Trunking Forum
14 in Dallas, Texas, in addition to my other Network Regulatory duties.

15 **Q. HAVE YOU PREVIOUSLY TESTIFIED IN ANY REGULATORY**
16 **PROCEEDINGS?**

17 A. Yes. In my current position, I have provided pre-filed and/or filed Direct Testimony,
18 Affidavits, or appeared as a network witness before the Federal Communications
19 Commission ("FCC") and before utility commissions or courts of law in the
20 following states: Connecticut, Illinois, Kansas, Michigan, Missouri, Nevada, Ohio,
21 Texas Wisconsin, Kentucky, and Florida.

22 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

23 A. AT&T Tennessee. I will refer to AT&T Tennessee as AT&T.

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

2 A. I explain and support the network and technical aspects of AT&T's positions on
3 II.C(2), II.C(3), II.D(1), II.D(2), II.F(1), II.F(2), II.F(3), II.F(4), II.G, II.H(1), II.H(2),
4 36 II.H(3), III.A.4(3), and V.B. Before addressing these specific issues, I discuss
5 some fundamental network principles, particularly the distinction between trunks and
6 facilities, a sound understanding of which is essential to understanding several of the
7 DPL issues I discuss.

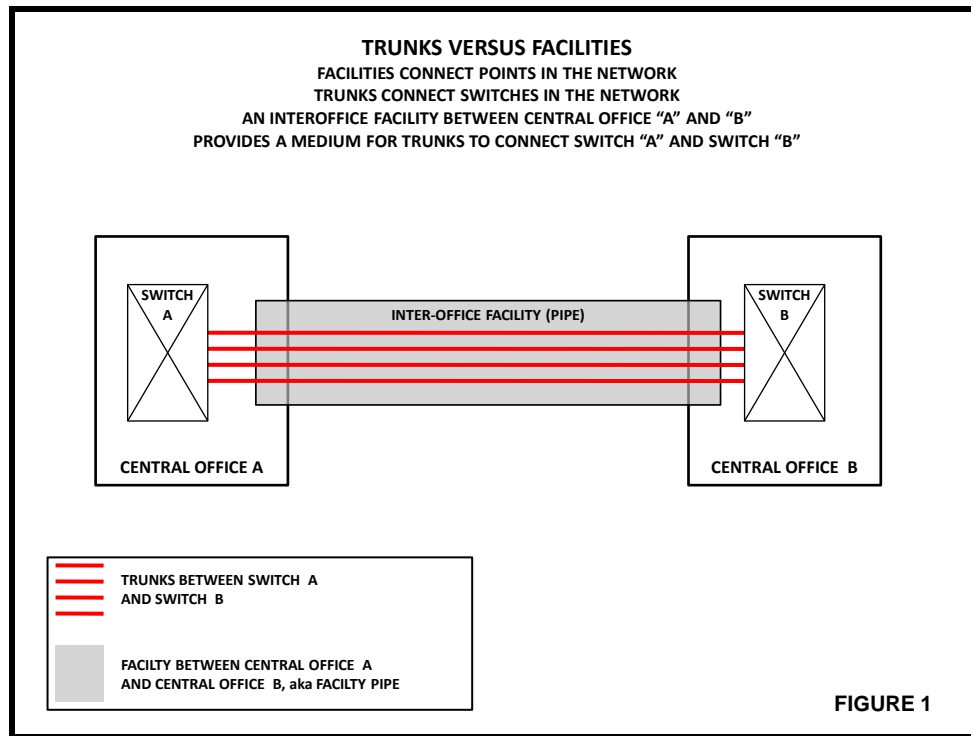
8 **TRUNKS, FACILITIES, AND POINTS OF INTERCONNECTION**

9 Q. HAVE YOU OBSERVED THAT SOME PEOPLE CONFUSE TRUNKS
10 AND FACILITIES?

11 A. Yes, I have observed that some people mistakenly use both terms interchangeably.
12 That is, they might use the term "trunks" when "facility" is the appropriate term.

13 **Q. CAN YOU EXPLAIN IN SIMPLE TERMS WHAT IS A FACILITY AND**
14 **WHAT IS A TRUNK, DESCRIBING THE FUNCTION OF EACH AND HOW**
15 **THEY DIFFER?**

16 A. Yes. A facility is a physical medium, such as copper wire or fiber optic cable used to
17 connect two points on a network, or two different networks, over which
18 telecommunications messages are transmitted. Central offices are points in a network
19 – specifically, they are buildings that house telecommunications equipment, including
20 switches. A facility is used to establish a physical connection between two central
21 offices. Figure 1, below, illustrates a facility that connects two central offices. This
22 facility, represented by the gray-toned bar, can be considered as a "pipe" that
23 connects the two offices.



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10 Q. WHAT MATERIAL DOES AT&T USE FOR ITS INTEROFFICE
11 FACILITIES?

¹ Trunks terminate on trunk ports located on the trunk-side of the switch, while facilities terminate at a facility termination located within the central office.

1 A. For the most part, AT&T uses fiber cable facilities within its interoffice facility
2 network. Typically, these facilities are described in "Digital Signal Level" (AT&T
3 GT&C § 51.1.37) terms such as Digital Signal 0 ("DS0"), DS1, DS3, and, in the case
4 of Synchronous Optical Network ("SONET"), Optical Carrier 3 ("OC3"), OC12 and
5 higher. These terms refer to the transmission level, or equivalent number of trunks or
6 circuits at each level. Table 1, below, displays the hierarchical transmission levels up
7 to an OC-48 level² SONET system, and how many DS3s, DS1s, and DS0s or
8 equivalent trunks each level can carry.

DIGITAL HIERARCHY: TRUNK QUANTITY

1-DS0 = 1-TRUNK

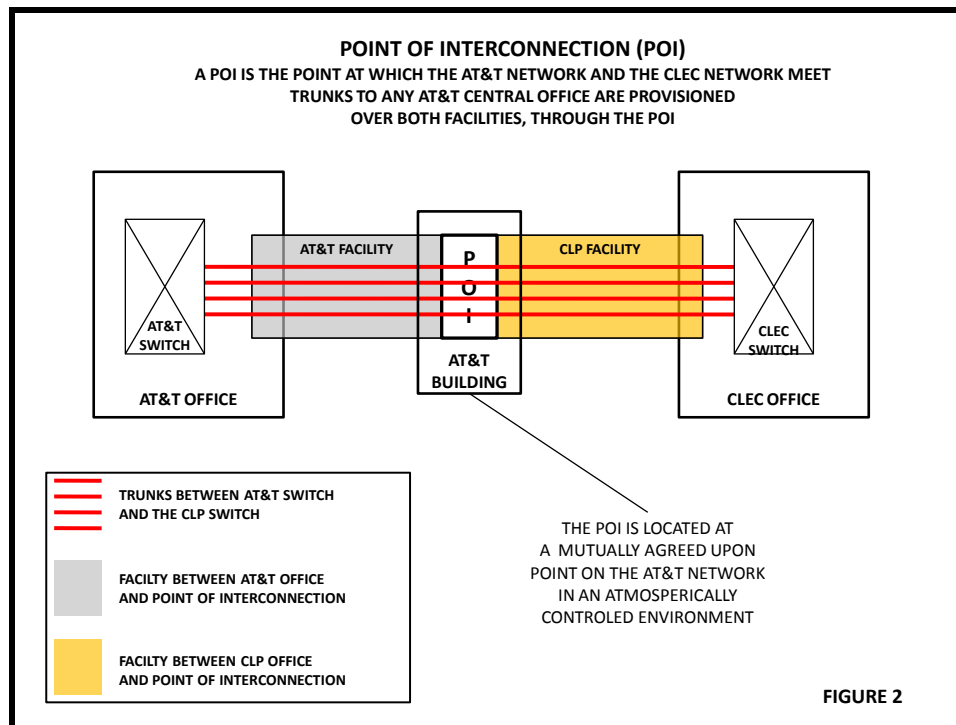
	DS3	DS1	DS0	Trunks
DS0			1	1
DS1		1	24	24
DS3	1	28	672	672
OC3	3	84	2016	2016
OC12	12	336	8064	8064
OC48	48	1344	32256	32256

TABLE 1

9
10 Q. WHAT IS A POINT OF INTERCONNECTION ("POI")?

² SONET transmission levels can go higher than 48 DS3s. I used OC-48 as an upper limit only for purposes of illustration.

1 A. The POI is the point at which the networks belonging to AT&T and the CLEC or
2 CMRS provider physically meet. Figure 2 below illustrates how the AT&T network
3 and a CLEC's network interconnect. The illustration shows where the POI is located,
4 the facility for which each carrier is responsible, as well as how the trunks between
5 the CLEC switch and an AT&T switch are provisioned. Each carrier is responsible
6 for the facilities on its side of the POI.



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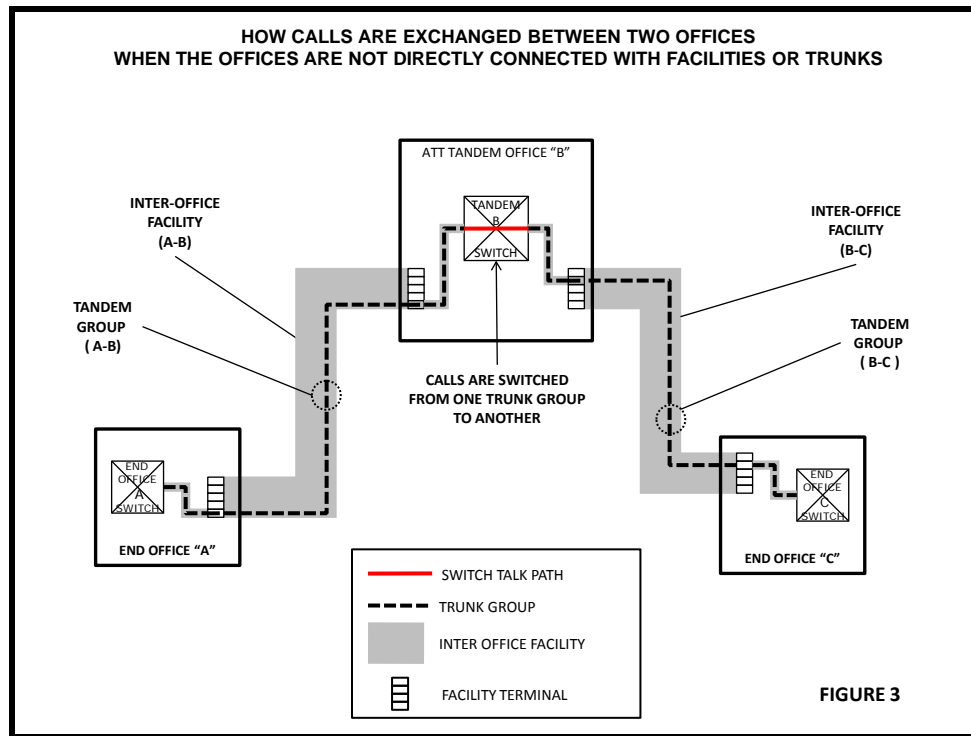
8 Some CLECs claim that every point in the network where they have established
9 trunks is a POI. This is not the case, however. Merely trunking to a switch in the
10 network does not create a POI. The POI is only created when a CLEC's network or
11 facilities are physically connected to AT&T's network; the POI is the demarcation
12 point between the two networks. As shown in Figure 2, each carrier is responsible for

1 the facilities on its side of the POI. While the facilities between the CLEC office and
2 the AT&T office are owned by two carriers, their networks are physically linked
3 together to form a continuous facility between both carriers' offices, which allows
4 trunks to be provisioned between the AT&T switch and the CLEC switch. This
5 allows AT&T and the CLEC to exchange calls between their switches.

6 Q. CAN A CALL BE TRANSMITTED BETWEEN TWO SWITCHES THAT ARE
7 NOT DIRECTLY CONNECTED BY FACILITIES OR TRUNKS?

8 A. Yes. This is accomplished by using a tandem switch. Figure 3, below, illustrates
9 how this is done. In this illustration, the two end offices ("A" and "C") utilize a
10 tandem switch (Tandem "B") to set up and route calls between their customers –that
11 is, between a customer whose phone is connected with End Office A and a customer
12 whose phone is connected with End Office C. A facility has been established
13 between each of the end offices and the tandem office. Over each facility, a trunk
14 group has been provisioned between each end office switch and the tandem switch.
15 Both trunk groups³ terminate at the tandem switch.

³ A "trunk group" is a set of trunks between two switches, designed to carry the same type of traffic between those two switches, which ride a facility between the offices. The minimum size trunk group is 24 trunks riding a DS1 facility.



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A call between an end user in end office “A” and an end user in end office “C” is routed to the tandem switch by end office switch “A” over its tandem trunk group. The tandem switch then routes the call to switch “C” over its tandem trunk group. That is how a tandem switch is used to complete calls between two end offices that are not directly connected with facilities or trunks.

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With no facility that directly connects end offices “A” and “C,” the delivery of a call between those end offices requires the use of two separate facilities; two separate trunk groups; and an additional switch at the tandem. This is not an efficient way to trunk calls between these two offices. Depending on traffic volumes between end offices “A” and “C,” a more efficient use of network resources would be to establish a Direct End Office Trunk Group (DEOT) between these offices and route

1 calls directly between them,⁴ eliminating the need for a tandem switch, and reducing
2 the number of trunk groups used for the call from two to one.

3 **Q. WHAT PART OF THE AT&T NETWORK CONTROLS OR COORDINATES**
4 **HOW CALLS ARE SWITCHED AND ROUTED FROM ONE OFFICE TO**
5 **ANOTHER?**

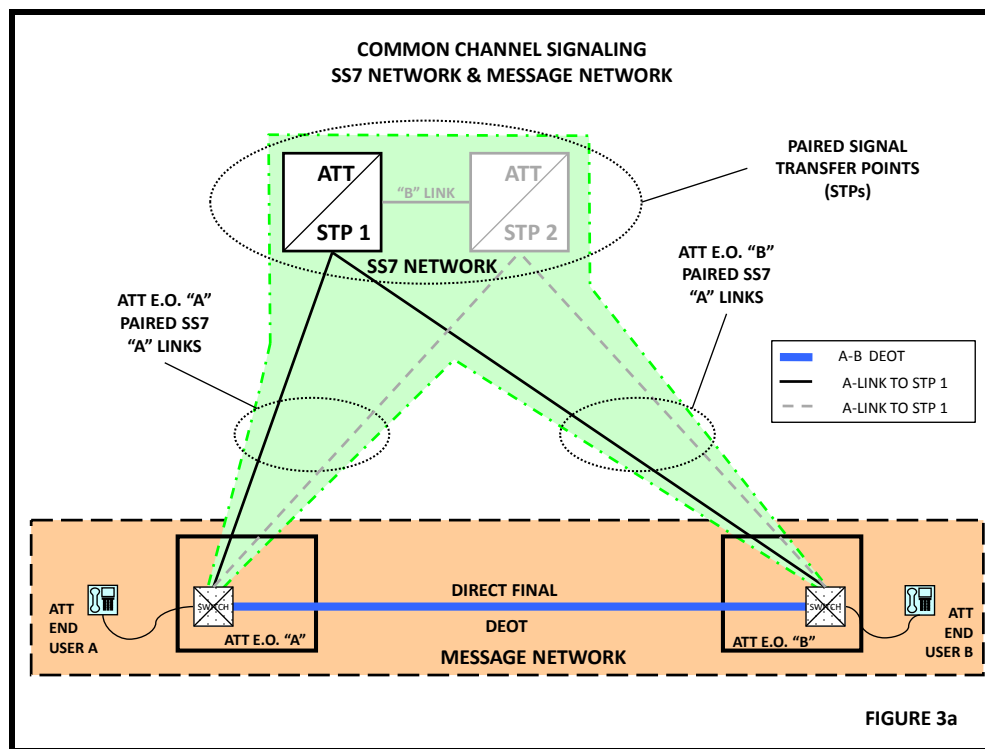
6 A. AT&T utilizes Common Channel Signaling (“CCS”), or out-of-band signaling, along
7 with switch translations to coordinate and control setting up a talk path between two
8 switches when a call is presented, and to tear down the call path when a call has
9 ended. Specifically, AT&T uses the CCS Signaling System Seven (“SS7”) protocol.
10 This signaling system is contained in its own network and is parallel to the message
11 network

12 **Q. ON A VERY BASIC LEVEL, HOW DOES SS7 SIGNALING WORK?**

13 A. I have provided Figure 3a, below, to illustrate my description of how SS7 signaling
14 works. In this drawing, a Direct Final DEOT connects the switches of two AT&T
15 End Offices. A trunk in this group will be selected to carry a call from end user A in
16 end office “A” to end user B in end office “B.” The two end offices, their respective
17 switches, and the trunk group between them comprise the message network, which is
18 highlighted in orange in Figure 3a.

⁴ In Figure 3, no facility directly connecting end office “A” with end office “C” is depicted. Consequently, establishing a DEOT between those offices would require using the facilities that connect each end office to the tandem to provision trunks from end office “A” and “C”. The facility over which these trunks are provisioned would cross-connect at the tandem. These are called “pass through” facilities and the DEOT trunks would not terminate at the tandem switch. If there were a facility connecting office “A” with office “B,” a trunk group could be provisioned on that facility.

Each end office in Figure 3a is connected to a pair of Signal Transfer Points (“STP”), labeled STP 1 and STP 2, with a pair of links that are referred to as A-Links. Although it is not going to be used in my description of call set up using SS7, the two STPs are connected to each other with a B-Link. During the set up of a call on the order of a call from switch “A” to switch “B,” such as what I am describing here where both switches home on to same pair of STPs, only one STP is used at a time. The STPs are paired for redundancy. The A-Links, the STPs and the B-Links make up the signaling network, which is highlighted in green in Figure 3a.



One of the fundamental purposes of SS7 is communicating to the various parts of the network that a call has been presented and network resources need to be prepared to receive that call. Essentially, a talk path or trunk between both switches must be reserved for the call. Rather than sending signals to each other over the

1 actual trunk (in-band signaling), as was done prior to CCS, this is accomplished by
2 signals sent from Switch A to Switch B by way of STP 1, over the A-Links. The SS7
3 network enables both switches to select the correct trunk group, and to reserve the
4 same trunk on that trunk group.

5 There is no reason to select a trunk and deliver a call if the terminating end
6 user is unable to accept or receive the call, and to do so would unnecessarily tie up
7 network resources. Consequently, Switch B, at the terminating or far end must also
8 check to determine if the Called Party is ready to accept a call. If the far end switch
9 detects that the Called Party is off-hook or already on a call, then the Calling Party
10 will receive a busy signal, and hang up. This is accomplished by switch B
11 communicating to Switch A, just as before, over the A-Links through STP 1. This is
12 a very basic explanation of SS7 signaling that only covers one fundamental function
13 of the system – that of call set up.

14 This same basic process is used for a call between two end offices that are not
15 directly connected with a trunk group, like the description of Figure 3 that I provided
16 above. In that description, two call set-up functions, rather than one, are performed
17 with SS7 – one from the originating switch A to the tandem B, and another from the
18 tandem to the terminating switch C.

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II. DISCUSSION OF ISSUES

ISSUE II.C(2)

Should the ICA include Sprint's proposed language permitting Sprint to send wireline and wireless 911 traffic over the same 911 Trunk Group when a PSAP is capable of receiving commingled traffic?

Contract reference: Attachment 10, section 1.2 (CLEC); 1.1 (CMRS)

Q. WHAT IS THE DISAGREEMENT ABOUT COMMINGLING 911 TRAFFIC?

A. Sprint proposes to combine its CMRS and CLEC 911 traffic over a single trunk group "when the appropriate Public Safety Answering Point is capable of accommodating this commingled traffic." AT&T maintains that Sprint should not be permitted to combine (or commingle) its CMRS and CLEC 911 traffic.

Q. WHAT IS THE BASIS FOR AT&T'S OBJECTION?

A. Commingling wireless and wireline E911 calls on the same trunk groups can hamper the processing of emergency calls in two ways: by impeding proper call screening at the Public Safety Answering Point ("PSAP") and by causing congestion of E911 traffic at the PSAP.

When an E911 call is delivered to a PSAP, the PSAP identifies the call type (landline, wireless, police, and fire) based on the trunk group that delivers the call.

There is a *screen* for each call type that displays at the attendant's position when a call comes in. The screen contains information that the attendant uses to determine how to respond to each call type. Because wireless callers are mobile, incoming wireless E911 calls may display a notice that directs the PSAP attendant to verbally obtain the location of the emergency from the call originator. If wireless and landline

1 E911 calls were combined on the same trunk group, the PSAP would not know
2 whether an incoming call was wireless or wireline. Because of this, the attendant
3 would not know to obtain location information from the caller.

4 Mixing wireless and wireline traffic on the same trunk groups could also
5 impair *congestion control*. Typically, and especially in urban population centers,
6 PSAPs receive more wireless calls that report vehicle accidents than landline calls.
7 Assume a situation in which many drivers are making wireless E911 calls to report an
8 accident on the highway, and at the same time a landline E911 call is made to report
9 an emergency at a residence. If the wireless and landline calls are on the same trunk
10 group, the wireless calls may busy up all of the trunks and block the landline call
11 from reaching the PSAP. This problem is avoided by using a separate trunk group for
12 landline E911 calls, which limits the number of wireless calls, yet allows wireline
13 calls to also get through to an attendant.

14 **Q. YOU MENTIONED THAT SPRINT'S PROPOSED LANGUAGE ALLOWS**
15 **COMMINGLING ONLY "WHEN THE APPROPRIATE PUBLIC SAFETY**
16 **ANSWERING POINT IS CAPABLE OF ACCOMMODATING THIS**
17 **COMMINGLED TRAFFIC." DOESN'T THAT LIMITATION CARE FOR**
18 **YOUR CONCERNS?**

19 A. No, because Sprint might well argue that notwithstanding the risks I have described,
20 the PSAP is "capable" of accommodating commingled traffic, because in many
21 instances, the problems I have described will not arise. Every reasonable effort
22 should be made to avoid blocked or mishandled E911 calls, and the risks I have
23 described can and should be avoided by the simple expedient of not commingling
24 wireless and wireline E911 traffic. Sprint's proposed language should be rejected.

1 ISSUE II.C(3)

2 **Should the ICA include AT&T's proposed language providing that the trunking**
3 **requirements in the 911 Attachment apply only to 911 traffic originating from**
4 **the Parties' End Users?**

5 Contract Reference: Att. 10, sections 1.2, 1.3 (CLEC); section 1.1 (CMRS)

6 **Q. WHAT IS THIS ISSUE ABOUT?**

7 A. In section 1.2 of Attachment 10 of the CLEC ICA, the parties have agreed that AT&T
8 will provide Sprint with access to AT&T's 911 and E911 databases, and will provide
9 911 and E911 interconnection and routing for the purpose of 911 call completion
10 only. AT&T proposes to firm that up by specifying that it shall be solely for the
11 purposes of *Sprint* 911 call completion. Sprint opposes that limitation. The same
12 disagreement appears in section 1.1 of Attachment 10 of the CMRS ICA.

13 **Q. WHAT IS THE REASON FOR AT&T'S PROPOSED LANGUAGE?**

14 A. In light of the critical nature of 911 service, every reasonable measure must be taken
15 to ensure that the service functions as intended. Combining multiple carriers' end
16 users' 911 calls on the same trunk group would prevent identification of the
17 originating carrier, which could be catastrophic in circumstances where the PSAP
18 needs to isolate a call back to that carrier.

19 **Q. WHY DOES SPRINT OPPOSE AT&T'S LANGUAGE?**

20 A. I do not know. I can only assume that Sprint does not understand the purpose of the
21 language.

22 **Q. HOW SHOULD THE AUTHORITY RESOLVE THIS ISSUE?**

23 A. The Authority should rule that AT&T's proposed language will be included in the
24 parties' ICAs.

1 ISSUE II.D(1)

2 **Should Sprint be obligated to establish additional Points of Interconnection**
3 **(POIs) when its traffic to an AT&T tandem serving area exceeds 24 DS1s for**
4 **three consecutive months?**

5 Contract Reference: Att. 3, AT&T section 2.3.2 (CMRS); AT&T section 2.6.1
6 (CLEC); Sprint section 2.3 (CLEC)

7 **Q. WHAT IS THIS DISAGREEMENT ABOUT?**

8 A. The parties agree that Sprint will initially establish one point of interconnection
9 (“POI”) with AT&T’s network in each LATA in which Sprint provides service.
10 AT&T proposes that if the volume of traffic passing through that POI exceeds a
11 specified threshold, then Sprint, in order to maintain network reliability, should be
12 required to establish one or more additional POIs. Specifically, AT&T proposes
13 language for both the CLEC ICA and the CMRS ICA that would require Sprint to
14 establish additional POIs in a LATA if the volume of traffic passing through the POI
15 exceeds 24 DS1s at peak times over three consecutive months. Sprint is opposed to
16 any such requirement.

17 **Q. WHAT IS THE BASIS FOR SPRINT’S OBJECTION TO AT&T’S**
18 **PROPOSAL?**

19 A. In its position statement in the DPL, Sprint states, “Federal law does not require
20 Sprint to install additional POIs based on predetermined traffic thresholds. It is for
21 Sprint to determine when it is most economical to increase the number, or change the
22 locations of, existing POIs.”

23 **Q. ARE THOSE SOUND REASONS FOR REJECTING AT&T’S LANGUAGE?**

24 A. No. There is no federal law that addresses, one way or the other, the question of
25 whether additional POIs should be established when traffic volumes so warrant. That

1 means the resolution of the issue is not predetermined by federal law. Section
2 251(c)(2) of the 1996 Act calls for interconnection on terms and conditions that are
3 “just, reasonable and nondiscriminatory,” and what AT&T is proposing here is just,
4 reasonable and nondiscriminatory. Assuming the Authority agrees, it should resolve
5 this issue in favor of AT&T.

6 As for Sprint’s assertion that it is for Sprint, and Sprint alone, to determine
7 when it is most economical to add POIs, I could not disagree more. As I will explain,
8 the reliability of the public switched telephone network (“PSTN”) is at stake here. If
9 Sprint wants to make use of that network, which it does, Sprint has to accept some
10 measure of responsibility for protecting it.

11 **Q. YOU SAY THERE IS NO FEDERAL LAW THAT ENTITLES SPRINT TO A**
12 **SINGLE POI. IS THERE AN FCC RULE THAT DOES?**

13 A. No. The FCC has signaled on several occasions its view that a requesting carrier is
14 entitled to a single POI, and in so indicating has made reference to its interconnection
15 rules, including in particular 47 C.F.R. §§ 51.305 and 51.321. Neither of those rules,
16 however, states that a requesting carrier is entitled to a single POI.

17 **Q. ASSUMING THAT A NEW ENTRANT IS ENTITLED TO A SINGLE POI,**
18 **DOES IT FOLLOW THAT SPRINT IS ENTITLED TO A SINGLE POI?**

19 A. No. In order to foster competition, “*new entrants*” should be allowed to establish an
20 initial single point of interconnection in a LATA within the network and franchise
21 territory of the ILEC with which the requesting carrier seeks to compete.⁵ But the

⁵ As the FCC noted in its *Local Competition Order*, “[M]any new entrants will not have fully constructed their local networks when they begin to offer service. Although they may provide some of their own facilities, these new entrants will be unable to reach all of their

1 new entrant's entitlement to a single POI is merely a vehicle to facilitate facilities-
2 based entry and competition. In fact, the FCC itself has questioned whether the
3 rationale applies, and has suggested that it does not, where we are no longer dealing
4 with a truly "new" entrant in its Intercarrier Compensation NPRM.⁶ Moreover, the
5 fact that "new entrants" are entitled to a single POI does not mean that there are not
6 circumstances under which multiple POIs are more efficient than a single POI. Sprint
7 is not a new entrant and has an extensive network. In fact, Sprint increases the risk of
8 network outages and isolation if it retains a single POI, because the single POI
9 becomes a single point of failure, especially if it has large volumes of traffic passing
10 through that POI.

11 **Q. PLEASE EXPLAIN.**

12 A. A carrier that insists on a single POI without regard to traffic volumes jeopardizes the
13 reliability of both its network and the ILEC's network. Though a single POI may
14 help a new entrant establish a foothold in a given market or LATA, as growth

customers without depending on the incumbent's facilities." First Report and Order,
Implementation of the Local Competition Provisions In the Telecommunications Act of 1996,
11 FCC Rcd. 15499 (rel. Aug. 8, 1996) ("*Local Competition Order*") ¶ 14.

⁶ FCC 01-132, Developing a Unified Intercarrier Compensation Regime, April 27, 2001, ¶ 113 ("If a carrier establishes a single POI in a LATA, should the ILEC be obligated to interconnect there and thus bear its own transport costs up to the single POI when the single POI is located outside the local calling area? Alternatively, should a carrier be required either to interconnect in every local calling area, or to pay the ILEC transport and/or access charges if the location of the single POI requires the ILEC to transport a call outside the local calling area?")

1 accelerates, multiple POIs provide additional security and reliability that a single POI
2 does not.

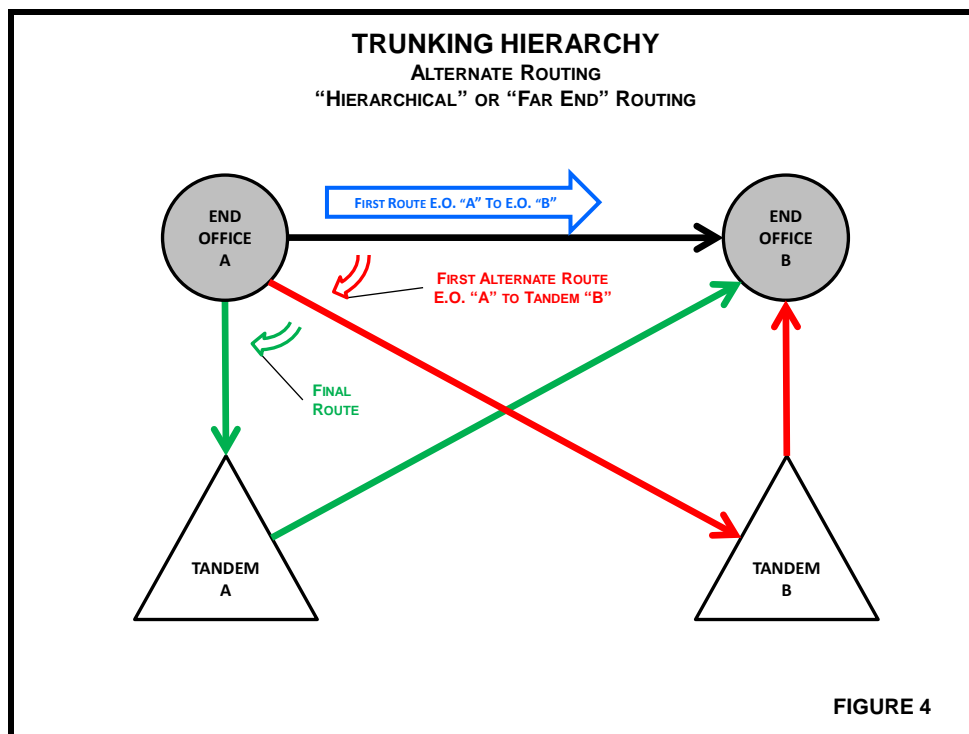
3 When an interconnecting carrier has only one POI, a catastrophic failure at
4 that single POI, such as a fire, network failure, hurricane, tornado, or other disaster,
5 could completely isolate that carrier's network from the PSTN. While the PSTN
6 contains built-in redundancies to protect itself from such events, the PSTN cannot
7 guarantee protection from a single point of failure to a carrier that chooses to limit its
8 access to the PSTN to that one point. As noted above and depicted in Figure 2, all of
9 the trunks between AT&T and the CLEC ultimately pass through the POI. If any of
10 the catastrophic events I mentioned should happen, the CLEC in Figure 2 with only
11 one POI is at a high risk of losing all ability to exchange calls with AT&T. And if the
12 CLEC uses AT&T as a transit provider, it risks losing its ability to exchange calls
13 with all others it interconnects with indirectly.

14 Additionally, problems in one carrier's network can create problems on other
15 carriers' networks, causing blocked calls. This is due to congestion created by call
16 set-up requests to the carrier that is experiencing the problem. What happens is that
17 people make multiple attempts to complete their calls and the congestion continues to
18 build exponentially. This phenomenon is called "regenerative attempts." Any long
19 range planning of a telecommunications carrier's network should include protections
20 on behalf of that carrier's end users as well as other carriers' end users and the public
21 in general. The successful completion of calls, including 911 emergency calls, for
22 any carrier's end users demands nothing less.

1 **Q. DOES AT&T PROVIDE DIVERSITY FOR ITS OWN NETWORK**
2 **SECURITY AND RELIABILITY SIMILAR TO THE MULTIPLE POI**
3 **ARCHITECTURE THAT AT&T IS ADVOCATING IN THIS**
4 **ARBITRATION?**

5 A. Yes. AT&T provides redundancy in its network transport facilities, including
6 advanced SONET rings (often referred to as self-healing networks). AT&T also
7 maintains a Network Systems Management Center group (NSMC) dedicated to 24x7
8 monitoring of AT&T's network reliability and performance.

9 In addition, AT&T also provides redundancy in its trunking network
10 arrangements, as illustrated in Figure 4, below.



1 In this scenario, AT&T has designed a Primary High Usage (PH)⁷ DEOT
2 between end office A and end office B. Normally, all calls between these two offices
3 will route over this trunk group. Suppose a call originates in office A, destined for
4 office B, and all trunks in the PH are busy. Because the first choice or first route
5 from A to B is a PH group, the originating office A will alternate route the call over
6 its IH group to tandem B, the home tandem of the terminating office B. This is the
7 first alternate route. Tandem B will route the call to end office B over its Alternate
8 Final trunk group (AF).

9 If the originating office A is unable to obtain a trunk on its IH to tandem B, it
10 will route the call over its Alternate Final (AF) trunk group to its own home tandem
11 A, which will then route the call to the terminating end office over the IH group
12 between Tandem A and end office B. This is the final route of the call. If the call
13 cannot be completed using this route, the call will block.

14 This trunking arrangement is known as a “hierarchical” or “far-end” tandem
15 routing arrangement, because the call is first alternate routed to the terminating, or
16 far-end tandem.⁸ Under an alternative arrangement called “access-like routing,” the
17 call is first-alternate routed to the originating end office’s home tandem. The use of

⁷ A Primary High usage (PH) trunk group is a trunk group that is designed to “overflow” onto another trunk group – usually an Alternate Final (AF) or an Intermediate High Usage (IH) trunk group – thereby providing an alternate talk path when every trunk in the PH group is busy with other calls.

⁸ Traffic Call Flows: First choice - calls are routed between end offices A and B via direct end office trunk (DEOT); Second choice - calls are routed between end offices A and B via Tandem B; Third choice - calls are routed between end offices A and B via Tandem A.

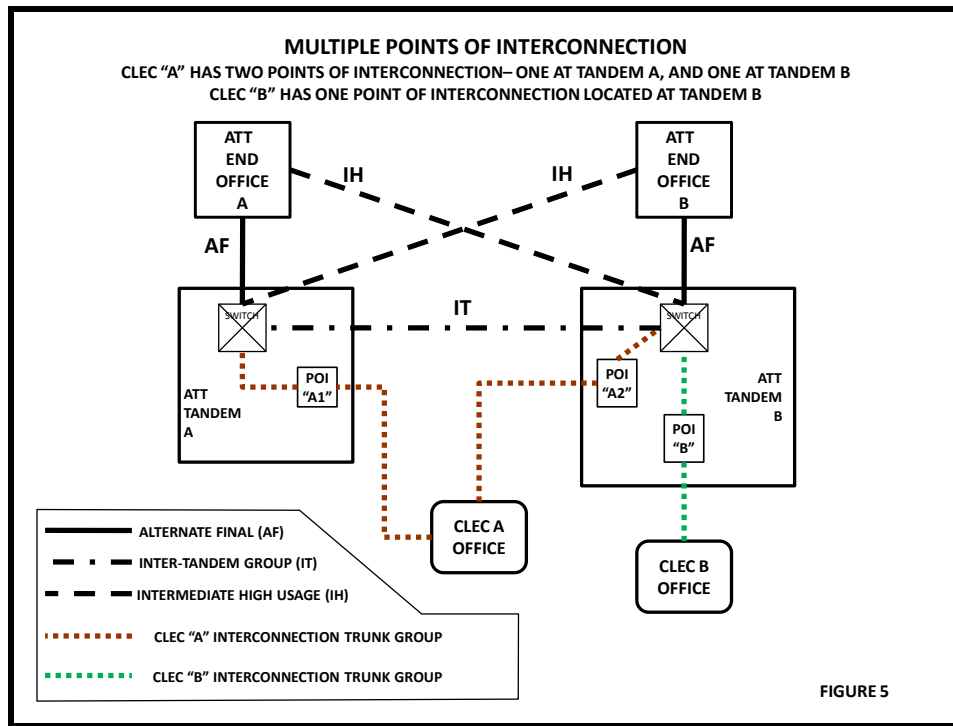
1 the term “access” does not mean the traffic is access type traffic. Though not always
2 possible in rural environments where end offices do not have alternate routes
3 available, alternate trunking arrangements are common in high volume
4 urban/metropolitan markets and are a very useful tool in protecting the network.

5 Even with all of the redundancy and self-healing capability built into the
6 AT&T network, network failures such as transport equipment failures, cable cuts,
7 traffic overload conditions, and software glitches still occur, and when they do the
8 NSMC must perform a manual reroute to maintain service. Given intentional and
9 accidental damage to cables, such as construction site cuts, car accidents, storm
10 damage and vandalism, as well as equipment failures and traffic overload conditions,
11 the NSMC must manually reroute traffic on an almost weekly basis over AT&T’s
12 network.

13 **Q. WHAT BENEFITS WOULD MULTIPLE POIS GIVE SPRINT?**

14 A. I will answer that question by referring to Figure 5.⁹ This drawing depicts two
15 CLECs that have interconnected with AT&T – CLEC A and CLEC B. CLEC A has
16 established two POIs. One is in the AT&T tandem building A, and is designated POI
17 “A1.” The other POI established by CLEC A is located in AT&T tandem building B,
18 and is designated POI “A2.” CLEC B, on the other hand, has only established the
19 one POI located in AT&T tandem building B, designated as POI “B” in the drawing.

⁹ Figure 5 only shows the trunk groups associated with this architectural arrangement. Since I have previously established that facilities must be present in order to establish trunks, it should be understood that the facilities exist, even though they are not depicted in the drawing.



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Under normal network conditions, CLEC A delivers calls destined for AT&T end office A to AT&T tandem A, over its interconnection trunk group through its POI "A1." Also, under normal network conditions, CLEC A will similarly route calls destined for AT&T end office B to AT&T tandem B over its interconnection trunk group through its POI "A2." However, since CLEC B has established only one POI at tandem B, CLEC B will route all of its calls, destined for either end office A or end office B, through its POI "B."

9

10

11

12

If some catastrophic event should happen that causes tandem B to become isolated from the rest of AT&T's network, every carrier that interconnects with AT&T at tandem B will also be cut off from the rest of AT&T's network. Effectively, neither CLEC A nor CLEC B would be able to deliver calls to AT&T end

1 office B, as they would under normal conditions. AT&T would also not be able to
2 route calls, using normal routing procedures, from end office A to either CLEC A or
3 B. AT&T would have to implement emergency network management controls as I
4 discussed above.

5 Because there is an Intermediate High usage trunk group between AT&T
6 tandem switch A and AT&T end office B, CLEC A, working with AT&T Network
7 Management forces, is able to temporarily route calls to end office B on an
8 emergency basis through its POI "A1." Since CLEC B only has the one POI and it is
9 in tandem B, it will not have an available alternative arrangement that can be
10 deployed in such an emergency. While AT&T will be able to implement emergency
11 network management controls to get calls destined for CLEC A, it will not be able to
12 deliver calls to CLEC B. These calls will be blocked because there would be no path
13 available.

14 **Q. IN ADDITION TO CAUSING BLOCKED CALLS ON AT&T'S NETWORK,**
15 **WHAT ELSE DOES A SINGLE POI ARRANGEMENT DO TO AT&T?**

16 A. A single POI interconnection arrangement can also shift the burden of network costs
17 from the CLEC to AT&T. For instance, referring to Figure 5, CLEC A has
18 established a POI at each of the AT&T tandems and exchanges traffic between end
19 office A through its POI "A1" at Tandem A. AT&T end office A homes on Tandem
20 A – it is part of the calling scope of Tandem A. End office B homes on Tandem B. It
21 does not home on Tandem A; consequently end office B is not in Tandem A's calling
22 scope. However, CLEC A has also established a POI at tandem B, and exchanges
23 calls with end office B through its POI "A2" at tandem B. CLEC A is paying for its

1 part of the network (facilities to the both POIs) that is required to exchange traffic
2 with all of AT&T's end offices behind both tandems. In this architecture, AT&T
3 pays for the facilities that are on its side of the CLEC A POIs.

4 CLEC B, on the other hand, only has its POI B at tandem B. Consequently, if
5 CLEC B refuses to trunk to Tandem A, all traffic exchanged between end offices A
6 and B will be delivered to POI B. While CLEC B is paying for the network resources
7 required to exchange calls with end office B, it is not paying for those resources to
8 exchange calls with end office A. AT&T must pay for the facilities and trunks
9 required to deliver CLEC B's calls to any office in the Tandem A calling scope.

10 **Q, HAVE PUBLIC UTILITY COMMISSIONS IN OTHER STATES ENDORSED**
11 **THE PROPOSAL AT&T IS MAKING HERE?**

12 A. Yes, I am aware of two arbitrations in which the Kentucky Public Service
13 Commission ("KPSC") determined that the CLEC should be required to establish
14 additional POIs in a LATA if the volume of traffic to the initial single POI exceeded
15 one DS3 worth of traffic. In one case, arbitration between Brandenburg Telecom and
16 Verizon, the KPSC's arbitration order concluded: "Brandenburg has the right to
17 establish a minimum of one point of interconnection per LATA. Brandenburg is also
18 required to establish another POI when the amount of traffic passing through a
19 Verizon access tandem switch reaches a DS-3 level."¹⁰ The KPSC reached the same
20 conclusion in arbitration between South Central Telecom and Verizon.¹¹

¹⁰ *Petition of Brandenburg Telecom LLC for Arbitration of Certain Terms and Conditions of Proposed Agreement with Verizon South Inc. Pursuant to the Communications Act of 1934,*

1 **Q. HAVE ANY OTHER COMMISSIONS RULED ON THE ISSUE?**

2 A. Yes. The Public Utility Commission of Texas (“PUCT”) ruled on this issue in both
3 an MCI and a Level 3 arbitration. In the MCI proceeding (Docket No. 21791), the
4 PUCT ruled:

5 While the establishment of a single POI may be efficient during initial
6 market entry, once growth accelerates, what was initially economically
7 efficient may become extremely burdensome for one party. Although
8 the FCC’s First Report and Order expressly provides for
9 interconnection at any technically feasible point, it does not appear to
10 state that only one POI is required.¹²

11 In that docket, the PUCT also found:

12 In order to avoid network and/or tandem exhaust situations, the
13 Commission determines, on this record, that it is reasonable that a
14 process exist for requesting interconnection at additional, technically
15 feasible points.¹³

16 The PUCT ultimately approved language requiring the parties to negotiate additional
17 POIs when MCI’s traffic usage exceeds a traffic level equal to 24 DS1s.

18 AT&T’s proposed language here is very similar to the multiple-POI language
19 the PUCT approved.

as Amended by the Telecommunications Act of 1996, 2001 WL 1910644, at *8 (Ky. Pub. Serv. Comm. Nov. 15, 2001).

¹¹ *Re: South Central Telecom LLC*, 2002 WL 861952, at *8 (Ky. Pub. Serv. Comm. Jan. 15, 2002).

¹² Docket No. 21791, MCIW Arbitration Award at 12 (Pub. Util. Comm. of Tex., May 23, 2000).

¹³ *Id.* Approving Interconnection Agreement at 4. Docket No. 21791. (September 20, 2000)

1 In another arbitration, the PUCT required that Level 3 establish a POI in any
2 mandatory local calling area where Level 3 offers service that qualifies for reciprocal
3 compensation.

4 [I]t is appropriate for the parties to negotiate the establishment of
5 additional POIs within a mandatory local calling area where call traffic
6 levels may lead to inefficient network utilization or the exhaustion of
7 network facilities.

8 Although the FCC's First Report and Order expressly provides for
9 interconnection at any technically feasible point, it does not appear to
10 state that only one POI is required.¹⁴

11 **Q. HOW SHOULD THE AUTHORITY RULE ON THIS ISSUE?**

12 A. The Authority should rule that the ICAs should include AT&T's proposed language.
13 Sprint is not a new entrant and should bear the cost of its interconnection
14 arrangements. AT&T only asks to be treated fairly and equitably with language that
15 requires Sprint to share the cost of its large interconnection network and not allow
16 Sprint to shift its costs onto AT&T.

17 **Q. DOES SPRINT CURRENTLY HAVE MULTIPLE POIS IN SOME LATAS IN**
18 **AT&T INCUMBENT LEC TERRITORIES?**

19 A. Yes, Sprint does have multiple POI in some LATAs in the AT&T incumbent LEC
20 territories, but it does not have multiple POI in the state of Tennessee.

21 **Q. IF AT&T'S PROPOSED LANGUAGE WERE REJECTED, WOULD THAT**
22 **ALLOW SPRINT TO ELIMINATE EXISTING POIS?**

23 A. As I read the contract language, that is not entirely clear. Sprint has not proposed any
24 language about eliminating existing POIs, and the language we would be left with, if

¹⁴ Arbitration Award, Docket No. 22241, *Petition of Level 3 Commc'ns, LLC for Arbitration* (Pub. Util. Comm. Texas Aug. 11, 2000), at 19-20.

1 AT&T's proposed language were not included in the ICA, makes no mention of that
2 subject. I assume Sprint would say that it should be allowed to eliminate existing
3 POIs if it so chooses, and Sprint's proposed language could be read as permitting that.
4 Allowing Sprint to decommission existing POIs would run completely counter to the
5 goals of the Act to promote facilities-based competition.

6 **Q. WHAT, IF ANYTHING, SHOULD THE AUTHORITY DO ABOUT THIS?**

7 A. The Authority should not have to do anything about this, because if it resolves the
8 issue in favor of AT&T, as it should, no question about decommissioning existing
9 POIs will arise. In the event that the Authority determines that AT&T's proposed
10 language should not be included in the ICAs, however, the Authority should make
11 clear in its decision that it is not authorizing Sprint to take down POIs that the parties
12 have already established.

13 ISSUE II.D(2)

14 **Should the CLEC ICA include AT&T's proposed additional language governing**
15 **POIs?**

16 Contract Reference: Att. 3, sections 2.6.1, 2.6.3 (AT&T CLEC)

17
18 **Q. WHAT IS THE ADDITIONAL DISPUTED LANGUAGE IN THE CLEC ICA**
19 **CONCERNING POIS?**

20 A. In addition to the language that AT&T proposes for section 2.6.1 that would require
21 Sprint to establish additional POIs when traffic volumes warrant, AT&T proposes
22 other language concerning POIs in section 2.6.1, and in section 2.6.3 of the CLEC

1 ICA, that Sprint disputes. I will address the most pertinent of the disputed provisions
2 in the order in which they appear.

3 **Q. WHAT IS THE FIRST OF THESE DISPUTED PROVISIONS?**

4 A. There is a sentence in AT&T's proposed section 2.6.1 that states, "Sprint and **AT&T-**
5 **9STATE** shall each be responsible for engineering and maintaining the network on
6 its side of the Point of Interconnection." Sprint apparently opposes that sentence.¹⁵

7 **Q. WHAT IS THE BASIS FOR AT&T'S PROPOSED SENTENCE?**

8 A. AT&T believes that each carrier is responsible, financially and otherwise, for the
9 network on its side of the POI; indeed, that is what makes the POI the POI.

10 **Q. ARE YOU AWARE OF ANY SUPPORT FOR AT&T'S VIEW?**

11 A. Yes. In Docket No. 03-00585, the Authority ruled that "the cost for direct connection
12 facilities should be borne by the CMRS provider to the point of interconnection and
13 facilities on the other side of the CMRS provider's point of interconnection should be
14 borne by the [ILEC]"¹⁶ Many other state commissions have ruled or noted that each
15 carrier is responsible for the network on its side of POI. For example:

¹⁵ Earlier in section 2.6.1, as it appears in the DPL, there is language to the effect that the selection of the location of the POI will be by mutual agreement, subject to certain considerations set forth in the proposed contract language. AT&T has withdrawn that language.

¹⁶ Order of Arbitration Award, Docket No. 03-00585, *Re Cellco Partnership dba Verizon Wireless*, 2006 WL 707481, at *17 (TRA Jan 12, 2006). In its July 21, 2008 Order on Reconsideration in Docket No. 03-00585, the Authority clarified (at p. 5) "by stating that each party is responsible for the cost of transporting the traffic originated on its network to the point of interconnection with the terminating party."

1 North Carolina: “Each party is technically and financially responsible for
2 transporting and delivering its originating traffic to the chosen POI . . .
3 .”¹⁷

4 Florida: “an originating carrier has the responsibility for delivering its traffic
5 to the point(s) of interconnection designated by the alternative local
6 exchange company (ALEC) in each LATA for the mutual exchange of
7 traffic.”¹⁸

8 South Carolina: “[CLEC] shall remain responsible for paying for the facilities
9 necessary to carry calls to the single Point of Interconnection.”¹⁹

10 Illinois: In a section 251(c)(2) interconnection, “[e]ach party is responsible
11 for the facilities on its side of the POI(s).”²⁰

12 Missouri: “Each party is financially responsible for facilities on its side of the
13 POI.”²¹

¹⁷ Order, Docket No. P-21, Sub 71 *et al.*, *Re Ellerbe Tel. Co.*, 2008 WL 5456092, at *1 (N. Car. Utils. Comm’n Dec. 31, 2008).

¹⁸ Order on Reciprocal Compensation, Docket No. 00075-TP, *Investigation into appropriate methods to compensate carriers for exchange of traffic subject to section 251 of the Telecommunications Act of 1996* (Fla. Pub. Serv. Comm’n Sept. 10, 2002), at 25.

¹⁹ Order on Arbitration, Docket No. 2000-527-C, *Re AT&T Commc’ns of the Southern States, Inc.*, 2001 WL 872914 (S. Car. Pub. Serv. Comm’n Jan. 30, 2001).

²⁰ Arbitration Decision, Docket No. 04-0469, MCI Metro Access Transmission Communications, Inc., et al. Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Illinois Bell Telephone Company Pursuant to Section 252(b) of the Telecommunications Act of 1996 (Ill. Comm. Comm’n Nov. 30, 2004), at 79.

²¹ Order Approving Arbitrated Interconnection Agreement, Docket No. TK20060050, In the Matter of the Interconnection Agreement between Southwestern Bell Telephone, L.P., d/b/a SBC Missouri, and the MCI Group, including MCI WorldCom Communications, Inc., and MCI metro Access Transmission Services, L.L.C., Arbitrated as a Successor Interconnection Agreement to the Missouri 271 Agreement (“M2A”), 2005 WL 1999950, at p. 5 (Mo. Pub. Serv. Comm’n Aug. 8, 2005).

1 Ohio: “At the POI, the responsibility for the facilities shifts from one party to
2 the other, as that point is the physical demarcation between the two
3 systems.”²²

4 **Q. WHAT IS THE BASIS FOR SPRINT’S OBJECTION TO AT&T’S**
5 **PROPOSED SENTENCE STATING THAT EACH CARRIER IS**
6 **RESPONSIBLE FOR THE NETWORK ON ITS SIDE OF THE POI?**

7 A. Sprint’s position statement on the DPL does not explain why Sprint objects to that
8 sentence, and I cannot think of a basis for its objection.

9 **Q. IS THERE ANOTHER PIECE OF DISPUTED LANGUAGE THAT TIES TO**
10 **EACH CARRIER’S RESPONSIBILITY FOR THE NETWORK ON ITS SIDE**
11 **OF THE POI?**

12 A. Yes – and here I will depart from my sequential treatment of the contract language.
13 AT&T proposes a section 2.6.2.4 that provides: “The Parties recognize that a facility
14 handoff point must be agreed upon to establish the demarcation point for maintenance
15 and provisioning responsibilities for each Party on its side of the POI.” Assuming
16 that the sentence I discussed just above is included in the ICA, so should this
17 provision. It adds nothing to which I can see Sprint objecting.

18 **Q. WHAT IS THE NEXT DISPUTED PROVISION ENCOMPASSED BY THIS**
19 **ISSUE?**

20 A. AT&T proposes, in section 2.6.2.1, that Sprint provide all applicable network
21 information on forms acceptable to AT&T, as set forth in the AT&T CLEC
22 Handbook, which is available on AT&T’s CLEC Online website.

23 **Q. WHAT IS THE REASON FOR AT&T’S PROPOSED LANGUAGE?**

²² Supp. Opinion and Order, Case No. 02-2719-TP-ARB, Application of T-Mobile USA, Inc. f/k/a VoiceStream Wireless Corporation for Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements With SBC Ohio, 2003 Ohio PUC LEXIS, at *13 (Pub. Utils. Comm’n Ohio June 10, 2003).

1 A. When Sprint interconnects with AT&T, AT&T needs certain information from Sprint
2 – SS7 point codes, switch CLLI name, etc. AT&T asks Sprint to provide this
3 information on a standard form because AT&T interconnects with many carriers, and
4 standardization facilitates the process.

5 **Q. WHY DOES SPRINT OPPOSE AT&T’S LANGUAGE?**

6 A. I cannot imagine and, again, Sprint’s position statement on Issue II.D(2) makes no
7 mention of this particular language. Sprint cannot possibly be concerned about the
8 nature of the information AT&T’s language calls for Sprint to provide, because the
9 language simply calls for “all applicable network information.” All that leaves is the
10 requirement that Sprint use the form available on AT&T’s website, and I would not
11 think that Sprint would find that objectionable.

12 **Q. WHAT IS THE NEXT DISPUTED PORTION OF AT&T’S PROPOSED POI**
13 **LANGUAGE?**

14 A. AT&T proposes, for section 2.6.2.2: “Upon receipt of Sprint’s Notice to
15 interconnect, the Parties shall schedule a meeting to document the network
16 architecture (including trunking). The Interconnection Activation Date for an
17 Interconnection shall be established based on then-existing force and load, the scope
18 and complexity of the requested Interconnection and other relevant factors.” This
19 language hardly seems controversial, and again, Sprint has not explained its
20 objection.

21 **Q. NEXT?**

22 A. AT&T proposes, for section 2.6.2.3, “Either Party may add or remove switches. The
23 Parties shall provide 120 calendar days written Notice to establish such

1 Interconnection; and the terms and conditions of this Attachment will apply to such
2 Interconnection.”

3 **Q. WHY SHOULD THAT PROVISION BE INCLUDED IN THE ICA?**

4 A. The addition and removal of switches are major network events and must be highly
5 coordinated in order to provide continuous service when moving end users from one
6 switch to another. I have seen switch conversion projects that were not coordinated
7 and resulted in network outages that could have easily been avoided. Again, Sprint
8 has not indicated why it does not accept AT&T’s language.

9 **Q. WHAT ARE THE NEXT AT&T-PROPOSED PROVISIONS THAT SPRINT**
10 **OPPOSES?**

11 A. In sequence, there is section 2.6.2.4, which I discussed above in connection with each
12 party’s responsibility for facilities on its side of the POI. Next is section 2.6.4, which
13 is another innocuous provision that Sprint does not accept but to which Sprint has
14 articulated no objection. This provision states: “A Party seeking to change the
15 physical architecture plan shall provide thirty (30) calendar days advance written
16 Notice of such intent. After Notice is served, the normal project planning process
17 described above will be followed for all physical architecture plan changes.” I
18 suspect that Sprint does not actually object to that provision. If Sprint indicates
19 otherwise in its direct testimony, I will respond in my rebuttal.

20 **Q. WHAT IS THE NEXT DISPUTED PROVISION?**

21 A. Next and last is AT&T’s proposed section 2.6.5, which provides: “Sprint is solely
22 responsible, including financially, for the facilities that carry OS/DA, E911, mass
23 Calling and Third Party Trunk Groups.” Based on its position statement in the DPL, I

1 take it that Sprint does not object to that language as it pertains to OS/DA and E911.
2 Sprint states, however, that AT&T's language "imposes financial responsibility on
3 Sprint for mass calling or third-party facilities installed for AT&T's benefit and use."

4 **Q. WHY SHOULD SPRINT BEAR FINANCIAL RESPONSIBILITY FOR THE**
5 **FACILITIES ON WHICH MASS CALLING AND THIRD PARTY TRUNK**
6 **GROUPS RIDE?**

7 A. Because these trunk groups are on Sprint's side of the POI *and* because, as between
8 AT&T and Sprint, Sprint is the cause of the associated costs. Third Party Trunk
9 Groups are for the transport of traffic between Sprint and third party carriers – no
10 AT&T end user is even involved. This is clear from AT&T's proposed language in
11 Attachment 3, section 2.8.11.1:

12 Third Party Trunk Groups shall be two-way Trunks and must be
13 ordered by Sprint to deliver and receive traffic that neither originates
14 with nor terminates to an AT&T-9STATE End User, including
15 interexchange traffic (whether IntraLATA or InterLATA) to/from
16 Sprint End Users and IXC's. Establishing Third Party Trunk Groups at
17 Access and local Tandems provides Intra-Tandem Access to the Third
18 Party also interconnected at those Tandems. Sprint shall be
19 responsible for all recurring and nonrecurring charges associated with
20 the traffic transported over these Third Party Trunk Groups.

21
22 I believe that the basis for Sprint's objection as it relates to mass calling groups is that
23 these trunk groups are installed in order to protect the public switched telephone
24 network, which Sprint sees as AT&T's network – the protection of which should be
25 to AT&T's account. That is not reasonable. If mass calling trunks are installed in
26 order to protect the network against possible harms resulting from mass calling *by*
27 *Sprint's customers*, it is Sprint, not AT&T, which should bear the attendant costs.

28 **Q. HOW SHOULD THE AUTHORITY RESOLVE ISSUE II.D (2)?**

1 A. The Authority should rule that the ICA will include all of AT&T's proposed
2 language. In the event that the Authority finds an isolated piece of AT&T's language
3 objectionable, it should require that piece to be modified, but should not reject the
4 language as a whole.

5 ISSUE II.F(1)

6 **Should Sprint CLEC be required to establish one way trunks except where the**
7 **parties agree to establish two way trunking?**

8 Contract Reference: Att. 3, CLEC section 2.5.1 (Sprint); CLEC section 2.8.1.1
9 (AT&T)

10 **Q. WHAT IS THE DISAGREEMENT ABOUT ONE-WAY VS. TWO-WAY**
11 **TRUNKING?**

12 A. Actually, based on inquiries I have made during the preparation of this testimony, I
13 believe the parties may well be able to resolve this issue. Accordingly, I do not
14 address it in this direct testimony. I hope to be able to report in my rebuttal testimony
15 that this issue has been closed.

16 **Q. AT&T OFFERS LANGUAGE IN CLEC SECTION 2.8.1.1. WHAT DOES**
17 **THAT LANGUAGE SAY, AND WHAT DOES IT MEAN?**

18 A. Section 2.8.1.1 offers the following language in Section 2.8.1.1.:

19 Sprint shall issue ASRs for two-way Trunk Groups and for one-way Trunk
20 Groups originating at Sprint's switch. AT&T-9STATE shall issue ASRs for
21 one-way Trunk Groups originating at the AT&T-9STATE switch.

22 This language refers to which carrier will have administrative control over a
23 trunk group. Sprint will have administrative control for all two-way trunk groups and
24 for all one-way trunk groups that originate at its switch. AT&T will have
25 administrative control for all one-way trunk groups that originate at an AT&T switch.

1 **Q. WHAT DOES THE TERM “ADMINISTRATIVE CONTROL” MEAN?**

2 A. The term “Administrative Control” describes which carrier is responsible for
3 initiating action that starts network activity required to design and establish a new
4 trunk group or to initiate the necessary activity to augment an existing trunk group.
5 This term will be used later in my testimony.

6 **Q. LET’S TALK ABOUT WHAT AT&T’S LANGUAGE MEANS. FIRST, WHAT**
7 **IS AN ASR?**

8 A. GTC Part B includes the following definition to which the parties have agreed:
9 “Access Service Request (ASR)’ means the industry standard form used by the
10 Parties to add, establish, change or disconnect trunks.” Thus, the ASR is the standard
11 form that AT&T and Sprint have agreed to use in order to communicate with each
12 other the need to add, establish, change or disconnect trunks.

13 **Q. UNDER AT&T’S LANGUAGE, SPRINT ISSUES THE ASR FOR ALL TWO-**
14 **WAY TRUNK GROUPS AND FOR ONE-WAY TRUNK GROUPS THAT**
15 **ORIGINATE AT SPRINT’S SWITCH, WHILE AT&T ISSUES THE ASR**
16 **ONLY FOR TRUNK GROUPS THAT ORIGINATE AT AT&T’S SWITCH.**
17 **WHAT IS THE SIGNIFICANCE OF THAT?**

18 A. The carrier that issues the ASR has administrative control for trunk servicing
19 requirements. AT&T’s language gives Sprint administrative control over all trunking
20 orders (whether augments, changes or disconnects) except those that pertain to one-
21 way trunks that carry traffic from AT&T’s switch to Sprint’s switch.

22 AT&T takes administrative control of those trunks because the traffic on a
23 one-way trunk group that originates at an AT&T end office switch is typically traffic
24 that AT&T end users originate. Traffic delivered to Sprint from an AT&T tandem

1 switch could originate from an AT&T end user or an end user that belongs to another
2 carrier. AT&T is responsible for the service its end users experience when they call
3 Sprint telephone numbers, as well as to other carriers that send their traffic across the
4 AT&T network. Consequently, AT&T should have administrative control over that
5 trunk group.

6 **Q. WHAT LANGUAGE DOES SPRINT CLEC OFFER REGARDING THE**
7 **ADMINISTRATIVE CONTROL ISSUE?**

8 A. Sprint's language does not appear to specifically address this issue. AT&T is hopeful
9 that as the parties work to resolve the broader issue, the specificity needed to ensure
10 which party has the responsibility for which trunk group will also be addressed.

11 ISSUE II.F(2)

12 **What Facilities/Trunking provisions should be included in the CLEC ICA e.g.,**
13 **Access Tandem Trunking, Local Tandem Trunking, Third Party Trunking?**

14 Contract Reference: Att. 3, CLEC section 2.5.2 (Sprint); CLEC sections 2.8.1 and
15 subparts (excluding 2.8.1.1); 2.8.2 – 2.8.6 and subparts (excluding 2.8.6.3);
16 2.8 – 2.9 and subparts (AT&T)

17 **Q. WHAT IS THIS DISAGREEMENT ABOUT?**

18 A. In the proposed contract provisions identified above, AT&T provides robust and
19 detailed language governing interconnection trunking. (As you can see on the DPL
20 Language Exhibit, interspersed in the language that is the subject of this Issue II.F(2)
21 are the provisions that are the subject of Issue II.F(1), Issue II.F(3) and Issue II.F(4),
22 which I discuss separately.) Sprint, in contrast, proposes a single short paragraph that
23 purports to cover the same subject.

1 **Q. WHAT IS SPRINT’S OBJECTION TO AT&T’S PROPOSED LANGUAGE IN**
2 **THIS ISSUE?**

3 A. In its DPL statement on this issue, Sprint alleges that AT&T’s language adds
4 inappropriate POI and cost-shifting provisions. In addition to that, Sprint asserts that
5 AT&T’s proposed language is unnecessary and burdensome.

6 **Q. HOW DOES AT&T RESPOND TO SPRINT’S ASSERTIONS?**

7 A. Sprint’s allegation that the proposed AT&T language adds inappropriate POI and
8 cost-shifting provisions is baseless. AT&T’s language is in the Interconnection
9 *Trunking* section of the ICA, which covers trunking items and not facility items. As I
10 previously explained, Points of Interconnection are created where AT&T’s network
11 facilities meet Sprint’s network facilities. Before trunk groups are established, AT&T
12 and Sprint must have already established a POI with their respective facilities. If an
13 additional POI was to be established, it would be done with language from a section
14 of the ICA other than the Trunking Requirements section. Once again, Sprint is
15 confusing trunks and facilities.

16 Additionally, AT&T’s language does not create cost shifts or hidden charges.
17 The language AT&T has proposed in the Trunking Requirements section of the ICA
18 does not ignore or remove either party from responsibility for facilities on its side of
19 the POI.

20 The language AT&T has offered is absolutely necessary. AT&T utilizes
21 many tandems throughout its network. These tandems are not carbon copies of each
22 other – they have differing purposes and differing functions within the network.

1 Some tandems may be classified as Access Tandems or Local Tandems. Trunk
2 groups must be connected to these tandems, and how those trunk groups are
3 established and set up must be identified in the Trunking Requirements section of the
4 ICA. Sometimes a group must be established to appropriately handle third-party
5 traffic. The Trunking Requirements language that AT&T has proposed appropriately
6 defines how these groups must be set up.

7 **Q. FROM A NETWORK PERSPECTIVE, DOES SPRINT'S TRUNKING**
8 **LANGUAGE PROVIDE THE SPECIFICITY REQUIRED TO ESTABLISH**
9 **THE APPROPRIATE TRUNK GROUPS TO ROUTE TRAFFIC?**

10 A. No. Sprint's proposed language is rather concise, but does not define the specifics
11 required to establish all of the trunking requirements necessary for establishing the
12 trunk groups AT&T and Sprint need to properly exchange traffic. Sprint's language
13 is too sparse, which could lead to difficulty in understanding the requirements and
14 obligations of the ICA.

15 **Q. HAS AT&T AGREED TO GRANDFATHER SPRINT'S EXISTING**
16 **NETWORK?**

17 A. Yes. In Attachment 3, § 2.7, there is undisputed language allowing pre-existing
18 interconnection arrangements to remain. AT&T recognizes that Sprint has made
19 considerable investment in its existing network and does not wish to force Sprint into
20 an expensive change of its network. It benefits neither party to require changes
21 simply for the sake of change.

22

1 ISSUE II.F(3)

2 **Should the parties use the Trunk Group Service Request for to request changes**
3 **in trunking?**

4 Contract Reference: Attachment 3, section 2.8.6.3

5 **Q. IS THIS STILL AN OPEN ISSUE?**

6 A. I believe not. Based on testimony Sprint filed in another state, I believe Sprint has
7 accepted AT&T's proposed language that requires the parties to use Trunk Group
8 Service Requests to request changes in trunking.

9 ISSUE II.F(4)

10 **Should the CLEC ICA contain terms for AT&T's Toll Free Database in the**
11 **event Sprint uses it and what those terms?**

12 Contract Reference: Att. 3, section 2.8.7 (CLEC only)

13 **Q. HAVE THE PARTIES PROPOSED LANGUAGE FOR 800/8YY TOLL FREE**
14 **SERVICE?**

15 A. AT&T proposes such language for Attachment 3 of the CLEC ICA, section 2.8.7 and
16 subparts. Sprint opposes AT&T's language, and offers none of its own.

17 **Q. WHAT DOES AT&T'S PROPOSED LANGUAGE COVER?**

18 A. Generally, it addresses the proper routing of toll free traffic and defines query charges
19 and matters pertinent to toll free calling.

20 **Q. DOES SPRINT OBJECT TO ANY PARTICULAR ASPECT OF AT&T'S**
21 **LANGUAGE?**

22 A. No. Sprint states in its DPL position statement that it does not use AT&T's toll free
23 service and so has no need for this language.

24 **Q. IF SPRINT DOES NOT USE THE SERVICE, WHY SHOULD AT&T'S**
25 **LANGUAGE BE INCLUDED IN THE ICA?**

1 A. Inclusion of the language cannot possibly do any harm, and a carrier that would
2 otherwise choose to adopt this ICA but that wants to use AT&T's service might be
3 troubled by the absence of language governing the provision of the service. For that
4 matter, Sprint may change its network architecture during the life of the ICA.
5 Additionally, there may be an instance where Sprint will need the service used to
6 ensure the proper routing of a call it hands off to AT&T for delivery to an IXC that it
7 is not directly connected to.

8 ISSUE II.G

9 Which Party's proposed language governing Direct End Office Trunking
10 ("DEOT") should be included in the ICAs?

11 Contract Reference: AT&T: Att. 3, section 2.3.2 (CMRS); sections 2.8.10-2.8.10.5
12 (CLEC); Sprint: Att., section 2.5.3(f)

13 **Q. PLEASE EXPLAIN THIS DISAGREEMENT.**

14 A. As I explained in my introductory discussion of trunks and facilities, direct end office
15 trunking ("DEOT") is trunking that connects a Sprint switch network directly with an
16 AT&T end office switch. As I also explained, when the amount of traffic that Sprint
17 is sending from its switch to a particular AT&T end office switch reaches a certain
18 level, efficient use of network resources calls for establishment of a DEOT, so that
19 traffic between Sprint's network and that AT&T end office can be trunked directly,
20 thus eliminating the need for tandem switching and reducing the number of trunk
21 groups used for that traffic.

22 Both Sprint and AT&T propose language that addresses the establishment of
23 DEOTs. The question is which Party's language should be included in the ICA.

1 **Q. WHAT IS THE DIFFERENCE BETWEEN THE COMPETING PROPOSALS?**

2 A. AT&T's language provides clear guidance for determining when a DEOT must be
3 established. Specifically, AT&T's proposed language for the CLEC ICA (section
4 2.8.10.1) calls for a DEOT to be established when traffic between a Sprint switch and
5 an AT&T end office switch requires 24 or more trunks. AT&T's proposed language
6 for the CMRS ICA (section 2.3.2) provides the same threshold.

7 Sprint's language, in contrast, has no defined threshold of traffic volume that
8 establishes when a DEOT is required. Indeed, Sprint's language seems designed to
9 ensure that Sprint will never have to establish a DEOT. It provides:

10 Subject to Sprint's sole discretion, Sprint may (1) order DEOT
11 Interconnection Facilities as it deems necessary, and (2) to the extent
12 mutually agreed by the Parties on a case by case basis, order DEOT
13 Interconnection Facilities to accommodate reasonable requests by
14 AT&T-9STATE.

15
16 **Q. IS AT&T'S 24 TRUNK THRESHOLD REASONABLE?**

17 A. Yes. This standard is recognized and used by many carriers in the industry and is fair
18 and equitable.

19 **Q. DO YOU KNOW OF ANY STATE COMMISSIONS THAT HAVE**
20 **ESTABLISHED THE 24 TRUNK DEOT THRESHOLD THAT AT&T IS**
21 **PROPOSING?**

22 A. Yes. In an arbitration between AT&T Illinois (Ameritech Illinois as it then was) and
23 Verizon Wireless, the Illinois Commerce Commission ("ICC") addressed the DEOT
24 issue. In its arbitration award, the ICC stated in pertinent part:

25 Allowing Verizon to interconnect at the tandem in every instance it
26 chooses could cause significant adverse impacts on Ameritech's
27 network. . . . Additionally, the Commission agrees with Staff that a

1 trigger point of . . . the equivalent of one DS-1 during the busy hour
2 for three consecutive months is reasonable. . . . We agree that once
3 Verizon's traffic reaches a certain level, it should do something to take
4 traffic off the tandem. However, what that "something" should be will
5 not always be direct trunking to the end office . . . We reach this
6 conclusion because Ameritech does not claim that its trunk to the end
7 office cannot carry Verizon's traffic. Ameritech merely claims that its
8 tandem cannot handle the traffic. Verizon should not have to duplicate
9 Ameritech's trunk to the end office. We agree with Staff's assertion
10 that "Verizon should not be required to establish a direct trunk group
11 to an end office where there are currently facilities from Verizon to the
12 tandem and from the tandem to the end office." . . . Verizon should
13 have several options available . . . including meet points and Digital
14 Cross Connects. Verizon retains its right to interconnect at any
15 technically feasible point of its choosing, which the tandem is not,
16 once the traffic reaches a certain level. Any alternative connection,
17 however, should not involve routing traffic through the tandem once
18 the trigger point has been reached.²³
19

20 Based on that decision, the parties to the ICC arbitration wound up with the

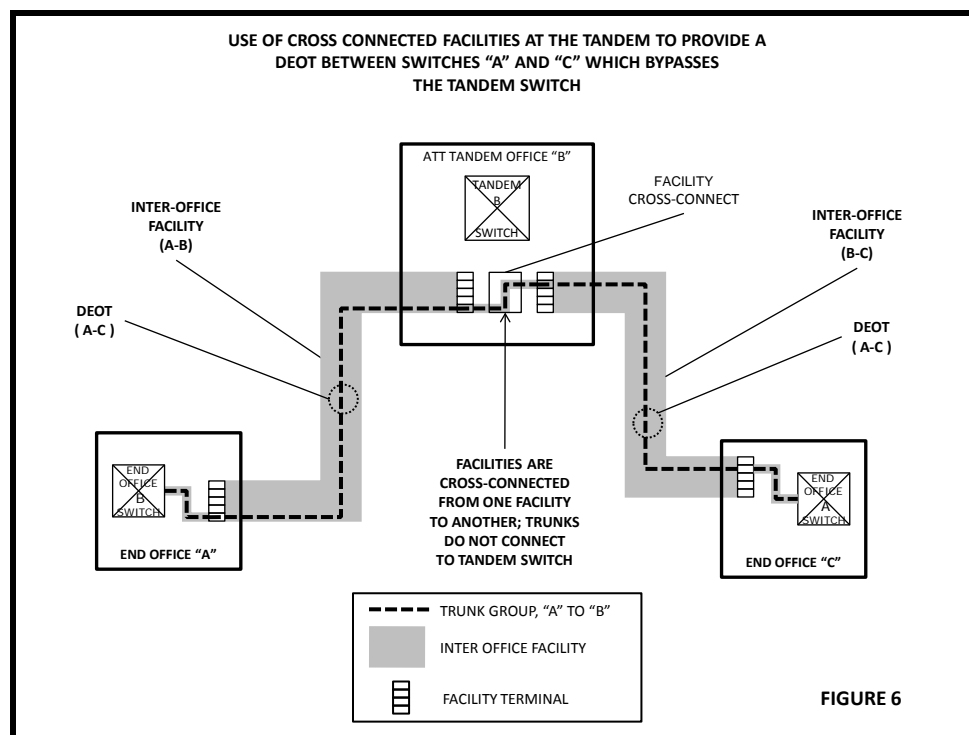
21 following DEOT language, which the ICC approved:

22 If the traffic from a single [Verizon] MSC through any [ILEC]
23 Tandem Switch destined for another specific [ILEC] switch . . . at any
24 time during each month of a three month period requires 24 or more
25 fully utilized Trunks consisting of 864 CCS (24 ERLANGS) or more
26 during the [Verizon] busy hour, then . . . [ILEC] may require that
27 [Verizon] . . . establish a two-way (where such is available) direct
28 Trunk Group to an alternative point of interconnection of [Verizon]'s
29 choosing (such as a meet point or digital cross connect), at the [ILEC]
30 tandem office building in which the Tandem Switch is located, for
31 traffic destined for the specific [ILEC] end office and each Party will
32 be solely responsible for the cost of facilities used for, and the
33 transport of, such traffic on its side of the alternative point of
34 interconnection and shall not charge the other Party for the use of such
35 facilities.

²³ Order, *Verizon Wireless Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois*, Docket No. 01-0007 (Ill. Comm. Comm'n May 1, 2001) (available at <http://www.icc.illinois.gov/docket/files.aspx?no=01-0007&docId=17767&m=0>).

1 **Q. THE REFERENCES TO CROSS-CONNECTS AND MEET POINTS IN THE**
2 **ICC'S DECISION AND THE LANGUAGE THE PARTIES WOUND UP**
3 **WITH GIVE THE IMPRESSION THAT WHAT THE ILEC GOT IN THE ICC**
4 **CASE IS QUITE DIFFERENT FROM WHAT AT&T IS ASKING FOR HERE.**
5 **IS THAT CORRECT?**

6 A. No, it isn't. As I indicated in my introductory discussion of trunks and facilities, the
7 key is to take traffic off the tandem. That can be done (referring here to Figure 6
8 below) by establishing a trunk group directly from switch "A" to switch "C" over
9 facilities that run from point "A" to a cross-connect in the tandem office, which then
10 connects to switch "C" by way of another facility that runs from the tandem office to
11 point "C." This trunk group bypasses the tandem switch, unlike the trunking
12 arrangement in Figure 3, which uses two trunk groups and the tandem switch to
13 deliver calls exchanged between switches "A" and "C."



1 **Q. HAVE OTHER COMMISSIONS OR AUTHORITIES MADE DECISIONS**
2 **THAT SUPPORT AT&T’S POSITION HERE?**

3 A. Yes. The Public Utility Commission of Texas, in its “mega-arbitration” (Docket No.
4 28821), ruled:

5 The Commission agrees with [the ILEC’s] concerns that tandem
6 exhaust, cost, network integrity and ability to serve multiple CLECs
7 together suggest that CLECs should be required to establish DEOT
8 once the parties exchange traffic in excess of 1 DS1. . . .

9
10 [T]he Commission concludes that CLECs must establish
11 DEOTs when a CLEC’s traffic from a POI to an end office located in
12 the same LCA exceeds 24 DS0s.

13
14 **Q. WHAT IS YOUR CONCLUSION?**

15 A. By far the most important aspect of the DEOT issue in this case is whether or not
16 Sprint will be required to establish DEOTs when traffic reaches a level of 24 trunks,
17 as AT&T proposes. Sprint will doubtless say that its proposed language provides for
18 DEOTs. However, if the Authority were to adopt Sprint’s language, there would be
19 no DEOT requirement in the agreement. Sprint’s language would “require” a DEOT
20 only “subject to Sprint’s sole discretion,” and only “as it [Sprint] deems necessary” or
21 “to the extent mutually agreed” – which means much the same thing, since there will
22 be no mutual agreement if Sprint does not agree. Accordingly, the Authority should
23 adopt AT&T’s proposed DEOT language and reject Sprint’s.

24

1 ISSUE II.H(1)

2 **What is the appropriate language to describe the parties' obligations regarding**
3 **high volume mass calling trunk groups?**

4 Contract Reference: Att. 3, section 3.3.1 (Sprint); Att. 3, section 2.9.12.2 (AT&T
5 CMRS); Att. 3, section 3.4 (AT&T CLEC)

6 **Q. WHAT ARE MASS CALLING TRUNK GROUPS?**

7 A. A mass calling event – or High Volume Call-in (“HVCI”) – is an occurrence in which
8 unusually large numbers of people call a particular phone number. The classic
9 example is what happens when a radio station offers a prize to the 100th person who
10 calls a particular number. Mass calling events can create call blockage and jeopardize
11 the PSTN. Mass calling trunks are trunk groups established to accommodate mass
12 calling events in a manner that avoids those problems.

13 **Q. IS THIS JUST A THEORETICAL PROBLEM, OR ARE THERE INSTANCES**
14 **IN WHICH AT&T EXPERIENCED NETWORK ISSUES BECAUSE OF**
15 **HIGH CALL VOLUMES?**

16 A. The latter. In July 1992, the AT&T network in Oklahoma experienced an overload
17 condition due to an HVCI that had a significant effect on emergency 911 calling
18 abilities.

19 Also, on October 16, 2002, there was a significant HVCI event in California
20 that was caused by media advertisements which caused the public to initiate calls to
21 purchase World Series tickets. Two AT&T California Access Tandems experienced
22 significant degradation during the event; both tandem switches went into “machine
23 congestion;” call register capacity was exceeded; billing records were lost; and
24 control, visibility and diagnostic capability were lost. The carriers that caused this

1 outage were mainly wireless and interexchange carriers (“IXCs”) that did not have
2 mass calling trunks and used SS7 signaling instead of Multi-Frequency (MF)
3 signaling.

4 Additionally, the Dallas/Fort Worth area experienced a similar “machine
5 congestion” due to a Garth Brooks concert in 1993.

6 **Q. WHAT IS THE MOST UNDESIRABLE POTENTIAL EFFECT OF A MASS**
7 **CALLING EVENT?**

8 A. A network failure caused by a mass calling event could trigger a delay in emergency
9 services in a life or death situation.

10 **Q. WHAT MEASURES DOES AT&T TAKE TO AVOID THE RISKS**
11 **PRESENTED BY MASS CALLING EVENTS?**

12 A. AT&T establishes, and asks carriers with which it is interconnected to establish, mass
13 calling trunks, separate from the PSTN, in order to ensure reliability of the network in
14 general and the 911 network in particular. Mass calling trunks (also referred to as
15 choke trunks or high volume call-in trunks) limit the number of calls allowed at one
16 time to a particular mass calling number.

17 **Q. WHAT IS THE PARTIES’ DISAGREEMENT ABOUT MASS CALLING**
18 **TRUNKS?**

19 A. Each party proposes mass calling language for the ICAs. The question is which
20 party’s language will be adopted.

21 **Q. WHAT IS THE DIFFERENCE BETWEEN THE PARTIES’ PROPOSALS?**

22 A. AT&T proposes robust language that, among other things, requires the establishment
23 of a dedicated trunk group to the designated Public Response Mass Calling Access
24 Tandem in each serving area (Att. 3, section 2.9.12.2.1 (CMRS); section 3.4.1

1 (CLEC) and calls for Sprint to notify AT&T if it acquires a mass calling end user
2 (such as a radio station) (section 2.9.12.2.1 (CMRS); section 3.4.3 (CLEC)).

3 Sprint's language, in contrast, while nominally requiring mass calling trunk
4 groups for high-volume customer calls, proposes that there be no mass calling
5 requirement. Sprint's proposal states,

6 If the need for HVCI trunk groups are identified by either Party, that
7 Party may initiate a meeting at which the Parties will negotiate where
8 HVCI Trunk Groups may need to be provisioned to ensure network
9 protection from HVCI traffic.

10

11 **Q. WHAT IS WRONG WITH SPRINT'S LANGUAGE?**

12 A. Just about everything. By the time the meeting Sprint proposes is conducted and the
13 negotiations are complete, the event may have already occurred. What is even worse
14 under Sprint's language is, if Sprint becomes aware of a need for HVCI trunks (in
15 Sprint's judgment, of course), Sprint *may* initiate a meeting. And if it is AT&T that
16 becomes aware of the need and initiates the meeting, Sprint's language would not
17 require Sprint to do anything at all – except negotiate.

18 **Q. HOW DOES SPRINT JUSTIFY ITS APPROACH?**

19 A. In its position statement on the DPL, Sprint states that it "is willing to address mass
20 call trunks when its customer instigates mass calls; but it is typically AT&T's
21 customer that creates an issue. Sprint should not be mandated to install and pay for
22 typically idle trunks to address issues caused by AT&T's contest-type customers."

23 **Q. HOW DO YOU RESPOND?**

24 A. In the first place, the payment obligation is the subject of another issue – II.D(2).

25 Beyond that, even if it is only occasionally that it is a Sprint customer that

1 “instigates” mass calls, the ICAs should appropriately provide for that – and language
2 that says only that Sprint *may* call a meeting does not suffice. Finally, to the extent
3 that it is Sprint’s customers that make the calls that congest the network, Sprint must
4 accept its fair measure of responsibility for safeguarding the network.

5 **Q. HOW SHOULD THE AUTHORITY RESOLVE THIS ISSUE?**

6 A. In order to ensure the reliability of the telephone network, especially the 911 network,
7 it is essential to have in place mass calling trunk groups and, in the case of
8 interconnecting trunk groups, a plan for communication between the interconnected
9 carriers. AT&T’s proposed language provides this, and Sprint’s does not. The
10 Authority should resolve this issue in favor of AT&T.

11 **ISSUE II.H(2)**

12 **What is appropriate language to describe the signaling parameters?**

13 Contract reference: Att. 3, section 3.5 (Sprint); Att. 3, section 2.3.2 (AT&T CMRS);
14 Att. 3, section 3.6, 3.7 (AT&T CLEC)

15 **Q. WHAT IS THE DISPUTE WITH SS7 SIGNALING PARAMETER**
16 **LANGUAGE?**

17 A. Sprint appears to reject the detail that AT&T presents with its language proposal,
18 stating that it appears to discuss something other than signaling parameters. Once
19 again, the question is whether the Authority should approve AT&T’s appropriately
20 detailed language that addresses signaling standards²⁴ and issues the parties are likely
21 to encounter, or Sprint’s cursory, high level language that leaves important matters
22 open to dispute.

²⁴ Telcordia Standard No. TR-NWT-00499

1 AT&T proposes detail regarding SS7 connectivity, on-hook and off-hook
2 conditions, privacy indicators, CLASS features, and other items that are necessary to
3 signaling operations. Additionally, AT&T's language provides information regarding
4 the exchange of Calling Party Number ("CPN"), charge number, originating line
5 information and other parameters that are essential to proper billing of calls. Also,
6 the number of digits that each party will send to the other is specified. These are all
7 items that should not be left to speculation, which is apparently what Sprint wishes to
8 do.

9 **Q. DOES SPRINT CLAIM THAT ANY OF AT&T'S PROPOSED LANGUAGE IS**
10 **UNREASONABLE?**

11 A. Not to my knowledge. Sprint's position seems to be that the detail is unnecessary.

12 **Q. HOW SHOULD THE AUTHORITY RESOLVE THE ISSUE?**

13 A. Unless Sprint can affirmatively demonstrate that there is something wrong with
14 AT&T's language, which I believe it cannot, the Authority should approve AT&T's
15 language. Signaling is one of the most critical elements in switching today and
16 specificity is a must. In particular, AT&T's language concerning the altering of SS7
17 parameters, such as CPN, serves to reduce or eliminate the possibility of billing
18 disputes in the future.

19 ISSUE II.H(3)

20 **Should language for various aspects of trunk servicing be included in the**
21 **agreement e.g., forecasting, overutilization, underutilization, projects?**

22 Contract Reference: Att. 3, section 3.10 (AT&T CLEC); section 4.1
23 (AT&T CMRS); section 3.6 (Sprint CMRS)

1 **Q. WHAT IS THE DISPUTE WITH TRUNK SERVICING LANGUAGE?**

2 A. Once again, AT&T proposes detailed language in an effort to define all of the
3 possibilities that may be encountered between two carrier's networks and Sprint
4 offers only high level language. AT&T's language better defines what is expected of
5 each carrier for its trunking network and is used in hundreds, if not thousands of ICAs
6 across the 22 states where AT&T operates as an ILEC. Sprint is relying on the non-
7 disputed language in Attachment 3, §§ 3.1-3.3 that describes trunk servicing and
8 network management at a very high level.

9 **Q. HOW WILL AT&T'S MORE DETAILED TRUNK SERVICING LANGUAGE**
10 **IMPROVE NETWORK PERFORMANCE?**

11 A. AT&T's language in Attachment 3, § 3.10 provides details for project management,
12 communications between the companies when trunk groups should be resized, as well
13 as processes to work through these matters in order to provide the highest level of
14 service to both parties' end users. AT&T's language also provides for tried and
15 proven methods by which Sprint may augment trunks groups to plan for upcoming
16 business arrangements and network requirements. The AT&T forecasting language
17 provides a reasonable method for including trunk requirements in AT&T's trunk
18 forecasts. This allows AT&T to more accurately plan for trunk, facility, switching,
19 terminating, and power requirements several years into the future, which in turn
20 enables AT&T to order future network resources in a timely manner.

21 Monitoring trunk groups for over- or under-utilization is necessary to
22 maintaining an efficient, economical, and reliable network.

1 ISSUE III.A.4(3)

2 **Should Sprint CLEC be obligated to purchase feature group access services for**
3 **its InterLATA traffic not subject to meet point billing?**

4 Contract Reference: Att. 3, sections 6.7-6.7.1 (AT&T CLEC)

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

6 A. The dispute concerns instances where Sprint is acting as an interexchange carrier and
7 delivering its interexchange end user traffic across LATAs and possibly state
8 boundaries. AT&T has proposed language that requires Sprint to purchase feature
9 group access services for its InterLATA traffic that is not subject to meet point
10 billing. Sprint opposes AT&T's language and offers none of its own.

11 **Q. DO THE FCC'S RULES ALLOW CLECS TO CARRY ACCESS TRAFFIC**
12 **ON LOCAL TRUNK GROUPS?**

13 A. No. Nothing in the Act or the FCC's rules requires AT&T to allow a CLEC to
14 combine interexchange traffic on local interconnection trunks. When a CLEC carries
15 calls across exchange lines – handing off calls to, and taking such calls from, AT&T
16 – it is obtaining switched access service from AT&T, terminating access in the case
17 of the “handoff” and originating access in the case of the “take.” The terms and
18 conditions that apply to the purchase of switched access service are governed by
19 switched access tariffs – intrastate tariffs on file with the state Authority in the case of
20 intrastate long distance calls and interstate tariffs on file with the FCC in the case of
21 interstate long distance calls. These tariffs require the use of separate, feature group
22 trunks for interexchange traffic.

23 **Q. HOW SHOULD THE COMMISSION RESOLVE THIS ISSUE?**

1 A. The Authority should award AT&T's language in support of Sprint establishing new
2 feature group ("FGD") trunks for its CLEC traffic or utilizing its existing Sprint LD
3 FGD trunks for its interexchange traffic.

4 **ISSUE V.B**

5 **What is the appropriate definition of "Carrier Identification Codes"?**

6 Contract Reference: Att. GT&C Part B Definitions

7 **Q. WHAT IS THE DISPUTE IN THIS ISSUE?**

8 A. The dispute here concerns the proper definition of Carrier Identification Code (CIC).
9 Sprint's language is vague and leaves out a critical component. The originating end
10 user dialing the interexchange call is the IXC's customer and not the LEC's for the
11 duration of that call. A LEC's access services are purchased by the IXC and the IXC
12 pays the LEC for origination and termination to the LEC's networks. Sprint's
13 language ignores the relationship between the LEC and the IXC, which is crucial to
14 the service.

15 **Q. WHAT IS A CARRIER IDENTIFICATION CODE?**

16 A. A Carrier Identification Code (CIC) is a unique four digit code that identifies a
17 particular IXC. This convention was invented in the 1980s to implement Equal
18 Access so that end users could choose their IXC when placing long distance calls and
19 is still in use today.

20 **Q. FOR WHAT IS IT USED?**

1 A. Basically, a CIC code is the number an end user customer would dial to access a
2 particular Long Distance carrier. To access a carrier other than the IXC that is
3 presubscribed to a particular phone line, the end user would dial the digits 950-
4 XXXX²⁵, where XXXX is the CIC code of the IXC the end user wishes to handle the
5 call. This type call is known as a Feature Group B (FGB) call.

6 Feature Group D (FGD) calls are calls in which the end user dials "1" plus the
7 desired telephone number and the IXC to which the end user's line is presubscribed
8 will handle the call. However, dialing the code 101-XXXX will enable a subscriber
9 to access any IXC. For instance, AT&T's CIC code is 0288. When the digits 101-
10 0288, plus the desired 10-digit number, are dialed, AT&T will handle that call. In the
11 past, this feature was advertised as dialing "ten-ten ATT"

12 Whenever a CLEC originates a call, which must be handled by an IXC, to the
13 AT&T access tandem over its Meet Point trunk group, the CLEC must tell the access
14 tandem which IXC must handle the call. The CIC code sent with the call is used by
15 the access tandem to route the call to the proper IXC.

16 Q. WHAT DEFINITION DOES AT&T PROPOSE?

17 A. AT&T has proposed the following language:

18 "Carrier Identification Codes (CIC)" means a code assigned by the North
19 American Numbering Plan administrator to identify the entity that *purchases*
20 *access services*. This code is primarily used for billing and routing from the
21 local exchange network to the access purchaser. [Emphasis is mine.]

²⁵ In the case of 950-XXXX, "X" represents any number from "0" to "9".

1 **Q. IS AT&T’S DEFINITION ACCURATE AND APPROPRIATE?**

2 A. Yes. Equal Access was ordered by the FCC to allow third party carriers, IXC’s, to
3 purchase access from LECs for the purpose of carrying interexchange long distance
4 calls. The IXC must order its interconnection services from access tariffs provided by
5 LEC’s and pay the originating and terminating carriers to access their networks.
6 AT&T’s definition identifies this aspect, which is an integral part of access services.

7 **Q. WHAT DEFINITION DOES SPRINT PROPOSE?**

8 A. Sprint CLEC proposes the following language:

9 “Carrier Identification Codes (CIC)” means a code assigned by the North
10 American Numbering Plan administrator to identify specific Interexchange
11 Carriers. This code is primarily used for billing and routing purposes.

12 **Q. WHAT IS WRONG WITH SPRINT’S DEFINITION?**

13 A. Sprint’s definition does not acknowledge the IXC/LEC relationship—that of the IXC
14 purchasing access services from the LEC. This is the key element that their definition
15 does not include. This cost structure has been in place for many years and the FCC
16 still recognizes it. Sprint’s definition ignores the fact that many ILEC’s today still rely
17 on the access compensation regime, which, if and until the FCC changes it, will
18 remain in effect.

19 **Q. WHAT HARM COULD COME FROM SPRINT’S DEFINITION?**

20 A. While AT&T is not accusing Sprint of any wrongdoing, there is always the potential
21 for a CLEC to route interexchange traffic in a way that circumvents a LEC’s access
22 tariffs, thereby avoiding possible access charges. Even if Sprint had no intention of
23 doing so, another CLEC that might engage in such activities could obtain this

1 agreement pursuant to Section 252(i) of the Act. When a carrier does engage in these
2 activities, they will end up in billing disputes and/or lawsuits, which the Authority
3 should want to avoid.

4 **Q HAS AT&T OFFERED ALTERNATIVE LANGUAGE TO SPRINT IN AN**
5 **EFFORT TO RESOLVE THIS ISSUE?**

6 A. Yes. AT&T has offered two alternative definitions to Sprint that if either were
7 accepted would resolve this issue.²⁶ The following language identifies these alternate
8 definitions of CIC code:

9 “Carrier Identification Codes (CIC)” means a code used to provide routing
10 and billing information for calls from end users via trunk-side connections to
11 interexchange carriers and other entities. Entities connect their facilities to
12 access provider’s facilities using several different access arrangements, the
13 common ones being Feature Group B (FG B) and Feature Group D (FG D).
14 Access providers are common carriers and connecting carriers that provide
15 interconnection services between an entity and another provider of
16 telecommunications services

17 AT&T has also provided a second alternative definition for Carrier

18 Identification Code:

19 CIC (Carrier Identification Code) - A numeric code that uniquely identifies
20 each carrier. These codes are primarily used for routing from the local
21 exchange network to the access purchaser and for billing between the LEC
22 and the access purchaser.

23

24 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

25 A. Yes.

²⁶ AT&T’s proposals include the definition from CARRIER IDENTIFICATION CODE (CIC) ASSIGNMENT GUIDELINES FINAL DOCUMENT, ATIS-0300050” dated January 15, 2010, published by The Alliance for Telecommunication Industry Solutions (ATIS) at 1.2 and 8.