

# **ATTACHMENT 3**

## **AT&T Illinois Testimony of Albright**

**BEFORE THE ILLINOIS COMMERCE COMMISSION**

**Docket No. 12-0550**

**Direct Testimony of Carl C. Albright, Jr.  
On Behalf of AT&T Illinois**

**AT&T Illinois Exhibit 2.0**

**PUBLIC**

**December 5, 2012**

**ISSUES  
1(a), 11, 16, 17, 18, 49**

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**DIRECT TESTIMONY OF CARL C. ALBRIGHT, JR.**

**ON BEHALF OF AT&T ILLINOIS**

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**I. INTRODUCTION AND SUMMARY**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Carl C. Albright, Jr. I am an Associate Director – Network Regulatory in AT&T’s Network Planning and Engineering Department. My business address is 3413 Booth Calloway, Richland Hills, Texas 76118.

**Q. WHAT ARE YOUR 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 Competitive 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. WHAT IS YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND?**

24 A. I have been employed by AT&T for 33 years. My entire career has been on the Network  
25 side of AT&T starting with Network Distribution in outside installation, repair, and  
26 maintenance, after which I spent time in Network Operations in the Central Office  
27 Special Services group. I also supported Network Operations as a technical instructor for  
28 AT&T for five years, developing and delivering broadband transport courses, from  
29 fundamental fiber optics to advanced Synchronous Optical Networks (“SONET”), as well  
30 as Digital Carrier Systems (“DCS”) and Signaling System 7 (“SS7”). I also worked with  
31 our wireless affiliate for four years managing the development, implementation,  
32 measurement and evaluation of technical training for its Wireless Network Operations  
33 organization. I have also served for five years providing technical Methods and  
34 Procedure support to the AT&T U-verse initiative. I have a Bachelors Degree in  
35 Management from Lamar University in Beaumont, Texas.

36  
37 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE STATE COMMISSIONS?**

38 A. Yes. I have filed testimony and/or appeared in regulatory proceedings on matters  
39 involving network design and network operations in numerous cases at state regulatory  
40 commissions including the Arkansas Public Service Commission, the California Public  
41 Utilities Commission, the Illinois Commerce Commission, the Oklahoma Corporation  
42 Commission, the Michigan Public Service Commission and the Public Utility  
43 Commission of Texas.

44  
45 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

46 A. My testimony will address network-related disputes over the language in the following  
47 portions of the interconnection agreement: General Terms and Conditions (“GTC”) and  
48 Attachment 02 - Network Interconnection.

49  
50 **II. DISCUSSION OF ISSUES**

51 **ISSUE 1(a): Should the ICA provide for IP-to-IP interconnection or should**  
52 **it provide that all traffic that Sprint delivers to AT&T under the ICA**  
53 **must be delivered in TDM format?**

54  
55 (GTC Sections 3.11.2.2)

56  
57 **ISSUE 11: Should terms and conditions regarding IP interconnection be**  
58 **included in the Agreement?**

59  
60 (Attachment 2, Section 2.1.6.2)

61  
62 **ISSUE 18: Should the ICA address POIs for IP-to-IP interconnection and,**  
63 **if so, is Sprint’s proposed language just and reasonable?**

64  
65 (Attachment 2, Sections 2.2.1 and 2.2.2)

66  
67 **Q. WHAT IS THE DISAGREEMENT THAT IS THE SUBJECT OF ISSUES 1(a), 11**  
68 **AND 18?**

69 A. Sprint proposes to include language in the ICA that would permit Sprint to demand that  
70 the parties establish IP-to-IP interconnection – in other words, for Sprint to interconnect  
71 its IP-capable equipment directly with IP-capable equipment on AT&T Illinois’ network.  
72 As Sprint’s proposed language, which I quote below, makes clear, Sprint is not asking  
73 that IP-to-IP interconnection be established when the parties’ new ICA goes into effect,  
74 or at any particular time after that, but rather proposes language that would enable Sprint  
75 to demand IP-to-IP interconnection at any time during the term of the ICA.

76

77 AT&T Illinois maintains that Sprint's proposed IP-to-IP language should not be included  
78 in the ICA.

79

80 **Q. WHAT DO YOU MEAN WHEN YOU REFER TO "IP-CAPABLE**  
81 **EQUIPMENT"?**

82 A. All the voice traffic that AT&T Illinois currently exchanges with Sprint (and with all  
83 other carriers with which it exchanges traffic) is exchanged in Time Division Multiplex  
84 format, commonly called "TDM." On the Internet, in contrast, information (including  
85 voice) is in Internet Protocol ("IP") format. When I say "IP-capable equipment," I am  
86 referring to equipment that can send, receive or process information in IP format, rather  
87 than in TDM. As I indicated, today, all traffic that Sprint delivers to AT&T Illinois is  
88 delivered in TDM, because AT&T Illinois' network is a TDM network. When I say that  
89 Sprint wants the option of establishing IP-to-IP interconnection, I mean it wants to  
90 deliver traffic in IP format to AT&T Illinois via a direct interconnection between IP-  
91 capable equipment on Sprint's network and IP-capable equipment on AT&T Illinois'  
92 network.

93

94 **Q. WHAT IS THE BASIS FOR AT&T ILLINOIS' POSITION THAT THE ICA**  
95 **SHOULD NOT ALLOW SPRINT TO ESTABLISH IP-TO-IP**  
96 **INTERCONNECTION WITH AT&T ILLINOIS?**

97 A. There are two separate reasons for AT&T Illinois' position. One reason is that section  
98 251(c)(2) of the Telecommunications Act of 1996 ("1996 Act"), which requires AT&T  
99 Illinois to provide interconnection with its network for Sprint's equipment, does not  
100 encompass or require IP-to-IP interconnection. As a result, AT&T Illinois has no duty (at

101 least no duty that can be enforced in this arbitration under section 252 of the 1996 Act) to  
102 provide IP-to-IP interconnection for Sprint.

103  
104 The second reason for AT&T Illinois' opposition to Sprint's language is that AT&T  
105 Illinois does not have an IP network, *i.e.*, does not have IP-capable equipment with which  
106 Sprint could interconnect even if section 251(c)(2) did require incumbent carriers with IP  
107 networks to provide interconnection with those networks.

108

109 **Q. WILL YOU BE SUPPORTING BOTH OF THOSE REASONS IN THIS**  
110 **TESTIMONY?**

111 A. No. The first reason (*i.e.*, that section 251(c)(2) does not require IP-to-IP  
112 interconnection) is purely legal, and I do not elaborate on AT&T Illinois' legal position  
113 in this testimony.<sup>1</sup> I do note below, however, that the Federal Communications  
114 Commission ("FCC") is considering the legal question and that this Commission should  
115 not get out ahead of the FCC and does not need to get out ahead of the FCC in order to  
116 resolve the issues it needs to resolve in this proceeding. In the testimony that follows, I  
117 do show that AT&T Illinois has no IP-capable network for Sprint to interconnect with.

118

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<sup>1</sup> There is no secret about the legal basis for AT&T Illinois' position; it is simply a matter that AT&T Illinois believes is appropriately addressed in legal briefs rather than in testimony. For the benefit of Sprint, Staff and the Administrative Law Judges, however, I am informed by counsel that the basis for AT&T Illinois' position, in abbreviated form, is that under section 251(c)(2), AT&T Illinois is required only to provide interconnection to telecommunications carriers for the transmission and routing of telephone exchange service and exchange access, while the services for which Sprint seeks (hypothetically and in the future) IP-to-IP interconnection are "information services," because they (1) would require a net protocol conversation to allow intercommunication with end users served by the PSTN, and (2) would integrate voice calling with a variety of other functionalities that allow end users to "generat[e], acquir[e], store[e], transform[], process[], retrieve[], utilize[e], or mak[e] available information via telecommunications" (47 U.S.C. § 153(2)).

119 **Q. WHAT IS THE COMPETING CONTRACT LANGUAGE?**

120 A. As I stated, Sprint is proposing language that would provide for IP-to-IP interconnection  
121 and AT&T Illinois opposes that language. As a result, almost all of the language at issue  
122 is proposed by Sprint. Specifically, Sprint is proposing the following language in  
123 connection with the three DPL Issues that relate to IP-to-IP interconnection:

124 **ISSUE 1(a): Should the ICA provide for IP-to-IP interconnection or should**  
125 **it provide that all traffic that Sprint delivers to AT&T under the ICA must**  
126 **be delivered in TDM format?**

127  
128 **GTC SECTION 3.11.2.2:**

129  
130 *Notwithstanding the foregoing, when the Parties utilize IP Interconnection,*  
131 *this Agreement may be used to exchange traffic in IP format.*

132  
133 **ISSUE 11: Should terms and conditions regarding IP interconnection be**  
134 **included in the Agreement?**

135  
136 Attachment 2 Section 2.1.6.2:

137  
138 *Sprint and AT&T Illinois will interconnect directly using IP interconnection*  
139 *facilities to exchange Authorized Services traffic where the parties exchange IP*  
140 *data traffic. When Sprint designates IP Interconnection in accordance with*  
141 *this Agreement, the Parties will engage in operational discussions to establish*  
142 *IP Interconnection in an expeditious manner.*

143  
144 **ISSUE 18: Should the ICA address POIs for IP-to-IP interconnection and, if**  
145 **so, is Sprint's proposed language just and reasonable?**

146  
147 Attachment 2 Sections 2.2.1 and 2.2.2:

148  
149 *Except where the Parties utilize IP Interconnection the location of the POI(s) will*  
150 *be as follows:*

151  
152 *When Sprint designates IP Interconnection and the Parties utilize IP*  
153 *Interconnection, Sprint and ATT ILLINOIS will exchange Authorized Services*  
154 *traffic at the existing internet exchange points ("IXP" or "IP POI"), where they*  
155 *are currently interconnected (e.g., Los Angeles, San Jose, Seattle, Chicago,*  
156 *Dallas, D.C. Metro, Miami, New York City, and or Atlanta) or such additional*  
157 *IP POIs as may be mutually agreed. Where the Parties utilize IP*  
158 *Interconnection, each Party is responsible for the cost of establishing IP*

159 *connection from its network to the IP POI, including any TDM-IP media*  
160 *gateway conversions, ports on its network edge router, port charges on the*  
161 *carrier hotel Ethernet switch and any carrier hotel fees for its collocated*  
162 *equipment or any IP transit costs associated with reaching the IP POI.*  
163

164 AT&T Illinois proposes competing language only in connection with Issue 1(a). There,  
165 AT&T Illinois proposes the following language for GTC section 3.11.2.2: “All traffic  
166 that Sprint delivers to AT&T Illinois pursuant to this Agreement will be delivered in  
167 TDM format.”

168

169 **Q. DOES SPRINT OPPOSE INCLUDING THAT SENTENCE IN THE ICA?**

170 A. I do not believe so. As I understand it, Sprint agrees that the ICA should state that Sprint  
171 will deliver traffic to AT&T Illinois in TDM format, but subject to the possible exception  
172 embedded in Sprint’s proposed IP-to-IP interconnection language.

173

174 **Q. PLEASE EXPLAIN WHAT YOU MEANT WHEN YOU SAID THAT AT&T**  
175 **ILLINOIS HAS NO IP-CAPABLE NETWORK FOR SPRINT TO**  
176 **INTERCONNECTION WITH.**

177 A. There is not much to explain. AT&T Illinois’ network is a TDM network. AT&T  
178 Illinois’ network simply does not include IP-capable equipment with which Sprint could  
179 interconnect any IP-capable equipment that it might own or acquire.

180

181 **Q. BUT DOESN’T AT&T ILLINOIS HAVE WHOLESALE CUSTOMERS THAT**  
182 **CARRY TRAFFIC IN IP FORMAT AND DELIVER THAT TRAFFIC TO AT&T**  
183 **ILLINOIS FOR TERMINATION TO AT&T ILLINOIS’ END USER**  
184 **CUSTOMERS?**

185 A. Yes, but those wholesale customers convert the traffic to TDM format before they deliver  
186 the traffic to AT&T Illinois. That is exactly what AT&T Illinois is proposing here:  
187 AT&T Illinois is not disputing Sprint's right to carry traffic in IP format. Before Sprint  
188 delivers that traffic to AT&T Illinois, however, it must convert it to TDM, just as AT&T  
189 Illinois' other wholesale customers that carry IP traffic do, and just as Sprint does today.

190

191 **Q. WHAT ABOUT AT&T ILLINOIS' RETAIL CUSTOMERS? DOESN'T AT&T**  
192 **ILLINOIS HAVE RETAIL U-VERSE CUSTOMERS WHO ORIGINATE OR**  
193 **TERMINATE VOIP (VOICE OVER INTERNET PROTOCOL) CALLS IN IP**  
194 **FORMAT?**

195 A. Yes, AT&T Illinois does have such customers.

196

197 **Q. DOESN'T THAT MEAN THAT AT&T ILLINOIS HAS AN IP-CAPABLE**  
198 **NETWORK?**

199 A. No, because the VoIP calls that those customers make and receive are not carried on an  
200 AT&T Illinois IP network. Rather, they are carried over the IP network owned by AT&T  
201 Illinois' affiliate, AT&T Corp., which performs the IP-to-TDM conversion.

202

203 **Q. PLEASE DESCRIBE THE EQUIPMENT AND FACILITIES THAT ARE USED**  
204 **FOR PROVIDING U-VERSE IP SERVICE.**

205 A. A diagram illustrating at a high level the equipment and facilities used for providing  
206 U-verse VoIP service is attached as Schedule CCA-1. The Residential Gateway (labeled  
207 "2Wire RG") and the piece of equipment labeled "FTTN," which is the Internet Protocol  
208 Digital Subscriber Line Access Multiplexer ("IP DSLAM") are owned by AT&T Illinois  
209 and are part of AT&T Illinois' outside plant "local loop" network. The equipment in the

210 Central Offices, Intermediate Offices and the Video Hub Office (“VHO”) is used to  
211 aggregate the IP data stream and the video stream into a single data stream for delivery  
212 to/from the AT&T U-verse end user. The IP data stream, including VoIP traffic, is  
213 carried over special access facilities from the AT&T Illinois VHO to the AT&T Corp.  
214 network. AT&T Illinois provides the transport and aggregation for the IP data stream;  
215 AT&T Corp. provides the necessary conversion and management of the data within the  
216 IP data stream, including any necessary conversion of the VoIP data stream to TDM  
217 format if that VoIP call is to be exchanged with the PSTN. The VoIP network, consisting  
218 of routers and gateways, is part of AT&T Corp.’s network.

219

220 **Q. COULD SPRINT ESTABLISH IP INTERCONNECTION AT THE**  
221 **RESIDENTIAL GATEWAY OR THE IP DSLAM?**

222 A. No.

223

224 **Q. WHY NOT?**

225 A. The Residential Gateway is located within a customer premise and is similar to a modem,  
226 performing the functions necessary to provide the customer with U-verse video service,  
227 internet service and VoIP depending on the services the customer has purchased. Each  
228 U-verse customer has an RG, and the RG takes the incoming data stream for that  
229 customer and breaks it out to the individual data services listed above to provide cable  
230 TV service via set top boxes connected to each of the customer’s televisions, high speed  
231 internet to the customer’s computer equipment and VoIP to the customer’s phones. The  
232 RG also combines the customer’s various outgoing data signals such as video pay-per-

233 view ordering, internet uploads and VoIP communications to transmit back to the U-  
234 verse VHO for video services, or to AT&T Corp.'s Internet Exchange Point ("IXP") or  
235 VoIP platform as appropriate. The RG is not an access point on the network for other  
236 carriers to connect to AT&T Illinois or any other carrier.

237

238 The IP DSLAM in the local loop is, by definition, a multiplexer (Digital Subscriber Line  
239 Access Multiplexer) utilized for transport and distribution that distributes and aggregates  
240 the IP formatted U-verse services to/from the customer's premises and is not capable of  
241 supporting interconnection with AT&T Illinois. The function of the IP DSLAM is to  
242 distribute the various customers' IP data streams over the appropriate local loop  
243 connections and to aggregate the customer's transmitted data streams for transport. The  
244 IP DSLAM only provides multiplexing and transport functions and does not analyze or  
245 manage the data stream itself. The IP DSLAM is not capable of determining what  
246 portions of the data stream are video services, internet services, or VoIP services as these  
247 data streams have already been combined by other upstream equipment such as the RG  
248 and are only transported and distributed through the IP DLSAM.

249

250 **Q. WHY CAN'T AT&T ILLINOIS ESTABLISH AN IP NETWORK SO THAT**  
251 **SPRINT CAN INTERCONNECT WITH AT&T ILLINOIS ON AN IP BASIS?**

252 A. AT&T Illinois could do that, but Sprint cannot demand that AT&T Illinois do so. I will  
253 leave this point primarily to the lawyers to discuss in the briefs, but section 251(c)(2) of  
254 the 1996 Act states that AT&T Illinois must provide interconnection "at any technically  
255 feasible point within [AT&T Illinois'] network." As a matter of simple common sense,

256 that means AT&T Illinois' *existing* network. I am also aware, though again I leave the  
257 discussion of this point primarily to the lawyers, that when the Eighth Circuit Court of  
258 Appeals reviewed the FCC's initial set of rules implementing the 1996 Act, that court  
259 stated that the unbundling duty in section 251(c)(3) of the 1996 Act requires unbundled  
260 access "only to an incumbent LECs existing network – not to a yet unbuilt superior one."  
261 *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 813 (8th Cir. 1997). Although that decision had to  
262 do with unbundled network elements, the principle should apply equally to  
263 interconnection; AT&T Illinois does not have to build an IP network just so that Sprint  
264 can interconnect with it.

265

266 **Q. HAS THE ILLINOIS COMMERCE COMMISSION EVER APPLIED THE FCC**  
267 **PRINCIPLE YOU JUST CITED?**

268 A. Yes. In Case No. 00-0393, there was an issue concerning CLEC requests for access to  
269 unbundled network elements. In that case, the Commission stated,

270 If capacity exists on SBC/Ameritech's network, it must be made available to  
271 fulfill CLECs' UNE requests on a first-come, first-served basis. . . . *AT&T Corp.*  
272 *v. Iowa Utilities Board I*, 120 F.3d 753, 813 (8<sup>th</sup> Cir. 1997) (subsection 251(c)(3)  
273 implicitly requires unbundled access only to an incumbent LEC's existing  
274 network – not a yet unbuilt superior one.) If capacity does not exist, then  
275 SBC/Ameritech can . . . reject the CLEC request for a UNE on the basis that  
276 ILECs do not have to build new facilities to support UNEs . . . .

277

278 Under that same principle, if Sprint wants IP-to-IP interconnection but AT&T Illinois has  
279 no IP network for Sprint to interconnect with, AT&T Illinois does not have to provide IP  
280 facilities in order to accommodate Sprint's request.

281

282 **Q. DOES AT&T ILLINOIS PROVIDE IP-TO-IP INTERCONNECTION FOR ANY**  
283 **OF ITS AFFILIATES OR OTHER CARRIERS?**

284 A. No. Consistent with the fact that AT&T Illinois has no IP network, AT&T Illinois does  
285 not provide IP-to-IP interconnection to any carrier, including its affiliates.

286

287 **Q. DO OTHER CARRIERS THAT HAVE IP NETWORKS INTERCONNECT WITH**  
288 **AT&T ILLINOIS?**

289 A. I believe AT&T Illinois interconnects with carriers that provide VoIP over an IP network,  
290 or that are capable of doing so. However, all carriers that interconnect with AT&T  
291 Illinois do so at the circuit-switched level; in other words, they deliver their traffic to  
292 AT&T Illinois in TDM format.

293

294 **Q. PLEASE SUMMARIZE YOUR TESTIMONY ON WHETHER, AS A FACTUAL**  
295 **MATTER, SPRINT CAN ESTABLISH IP-TO-IP INTERCONNECTION WITH**  
296 **AT&T ILLINOIS.**

297 A. Sprint cannot do so, and the Illinois Commerce Commission therefore should not approve  
298 language for the ICA that would permit Sprint to do so, for the simple reason that AT&T  
299 Illinois has no IP network with which Sprint, or any other carrier, can interconnect.

300

301 **Q. TURNING TO THE OTHER GROUND FOR AT&T ILLINOIS' OPPOSITION**  
302 **TO SPRINT'S IP-TO-IP INTERCONNECTION LANGUAGE, WHAT IS THE**  
303 **LEGAL BASIS FOR AT&T ILLINOIS' POSITION THAT SECTION 251(c)(2)**  
304 **DOES NOT ENCOMPASS IP-TO-IP INTERCONNECTION?**

305 A. As I said, I will leave that discussion for the lawyers, though I provided a brief statement  
306 of the basis for AT&T Illinois' position in footnote 1 above.

307

308 **Q. IN ITS POSITION STATEMENT ON THE DPL, SPRINT STATES THAT THE**  
309 **FCC, IN ITS *CONNECT AMERICA ORDER*, STATED THAT THE DUTY TO**  
310 **NEGOTIATE INTERCONNECTION ARRANGEMENTS APPLIES**

311 **IRRESPECTIVE OF THE NETWORK TECHNOLOGY UNDERLYING THE**  
312 **INTERCONNECTION, WHETHER TDM, IP OR OTHERWISE. CAN YOU**  
313 **COMMENT ON WHETHER THE FCC'S STATEMENT IN THAT ORDER**  
314 **SUPPORTS SPRINT'S IP-TO-IP PROPOSAL FOR THE PARTIES' ICA?**

315 A. I will comment briefly, so that the Commission will have a sense of the basis for AT&T  
316 Illinois' position – though again, this is really a question for the lawyers. The FCC's  
317 *Connect America Order* included a Notice of Proposed Rulemaking. That Notice made  
318 clear that while the FCC believes it has authority to require carriers to negotiate IP-to-IP  
319 interconnection, it is uncertain about the source of that authority. For example, the FCC  
320 stated (in paragraph 1335):

321 Commission requirements implementing the duty to negotiate IP-to-IP  
322 interconnection in good faith could take their primary guidance from one or more  
323 of various provisions of the Communications law – Sections 4, 201, 251(a), or  
324 251(c) of the Communications Act, or 706 of the 1996 Act. We seek comment on  
325 which of the available approaches is most consistent with our statutes as a whole  
326 and sound policy.

327  
328 As I understand it, state commissions arbitrating interconnection agreements are to  
329 enforce the requirements in section 251(c) of the 1996 Act, but not requirements set forth  
330 in other federal laws. Consequently, if the FCC were to decide, for example, that section  
331 4 of the Communications Act, rather than section 251(c)(2) of the 1996 Act, authorizes  
332 the FCC to require carriers to negotiate IP-to-IP interconnection, terms and conditions for  
333 IP-to-IP interconnection would not (at least as I understand it) be subject to arbitration or  
334 mandatory inclusion in a section 251/252 interconnection agreement. As a result, the  
335 FCC's mere statement that it expects carriers to negotiate terms for IP-to-IP  
336 interconnection does not imply that any such terms can appropriately be imposed in this  
337 arbitration.

338

339 **Q. IS THE FCC CONSIDERING THE QUESTION OF IP-TO-IP**  
340 **INTERCONNECTION?**

341 A. Yes. The FCC is considering this issue in WC Dkt. No. 11-119, *In the Matter of TW*  
342 *Telecom Inc. Petition for Declaratory Ruling Regarding Direct IP-to-IP Interconnection*  
343 *Pursuant to Section 251(c)(2) of the Communications Act*. TW filed its Petition initiating  
344 that proceeding on June 30, 2011. In its Petition, TW Telecom stated:

[S]tates currently lack the legal guidance from the FCC needed to confidently  
arbitrate disputes regarding IP-based interconnection agreements. Indeed, TWTC  
is not aware of any final state regulatory commission order holding that LECs  
have the right to direct IP-to-IP interconnection under Section 251(c)(2) of the  
Act.<sup>2</sup>

As that statement – by a proponent of IP-to-IP interconnection – recognizes, this  
Commission lacks the guidance it would need from the FCC to arbitrate disputes  
regarding IP-to-IP interconnection.

355 **Q. WHAT SHOULD THE ILLINOIS COMMERCE COMMISSION DO IN THIS**  
356 **DOCKET ABOUT THE LEGAL QUESTION WHETHER SECTION 251(c)(2)**  
357 **REQUIRES IP-TO-IP INTERCONNECTION?**

358 A. The Commission should not address the question. It does not need to address the  
359 question, because it can comfortably reject Sprint's proposed language on the ground that  
360 AT&T Illinois has no IP network with which Sprint could interconnect. And since the  
361 Commission does not need to answer the legal question, it should not do so, because the  
362 question is currently pending before the FCC, and it would be a mistake for the  
363 Commission to try to anticipate what the FCC is going to decide.

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<sup>2</sup> Petition for Declaratory Ruling of TW Telecom, Inc., filed July 14, 2011 (Page 6). WC Dkt. No. 11-119; In the Matter of TW Telecom Inc. Petition for Declaratory Ruling Regarding Direct IP-to-IP Interconnection Pursuant to Section 251(c)(2) of the Communications Act.

364

365 **Q. LET'S APPLY YOUR CONCLUSION TO THE SPECIFIC ISSUES THAT THE**  
366 **PARTIES HAVE PRESENTED CONCERNING IP-TO-IP INTERCONNECTION,**  
367 **STARTING WITH ISSUE 1(a). HOW SHOULD THE COMMISSION RESOLVE**  
368 **THAT ISSUE?**

369 A. Again, that is the issue in which Sprint proposes language that says, "*Notwithstanding*  
370 *the foregoing, when the Parties utilize IP Interconnection, this Agreement may be used*  
371 *to exchange traffic in IP format.*" The Commission should reject that sentence, because  
372 the ICA should not provide for IP-to-IP interconnection for the reasons I have stated.

373

374 **Q. YOU MENTIONED THAT IN CONNECTION WITH ISSUE 1(a), AT&T**  
375 **ILLINOIS PROPOSES A SENTENCE THAT READS, "ALL TRAFFIC THAT**  
376 **SPRINT DELIVERS TO AT&T ILLINOIS PURSUANT TO THIS AGREEMENT**  
377 **WILL BE DELIVERED IN TDM FORMAT." SHOULD THE COMMISSION'S**  
378 **RESOLUTION OF ISSUE 1(a) ADDRESS THAT SENTENCE?**

379 A. As I indicated, I believe that Sprint does not oppose that sentence, and I anticipate that  
380 Sprint will confirm that. If Sprint does so, the Commission need not address the point. If  
381 Sprint were to oppose that sentence, however, the Commission should adopt it as part of  
382 its resolution of Issue 1(a), because all traffic that Sprint delivers to AT&T Illinois must  
383 indeed be delivered in TDM format.

384

385 **Q. WHAT ABOUT ISSUE 11?**

386 A. The Commission should reject Sprint's proposed language on Issue 11 for the reasons I  
387 have discussed. Sprint's proposal is:

388 *Sprint and AT&T Illinois will interconnect directly using IP Interconnection*  
389 *Facilities to exchange Authorized Services traffic where the parties exchange*  
390 *IP data traffic. When Sprint designates IP Interconnection in accordance with*

391 *this Agreement, the Parties will engage in operational discussions to establish*  
392 *IP Interconnection in an expeditious manner.*

393  
394 As I have explained, the Commission should not impose any terms concerning IP-to-IP  
395 interconnection on the parties' ICA.

396

397 **Q. FINALLY, HOW SHOULD THE COMMISSION RESOLVE ISSUE 18?**

398 A. There is an additional wrinkle to this issue. This is the issue on which Sprint proposes  
399 the following language for Attachment 2, Section 2.2.2:

400 *When Sprint designates IP Interconnection and the Parties utilize IP*  
401 *Interconnection, Sprint and ATT ILLINOIS will exchange Authorized Services*  
402 *traffic at the existing internet exchange points ("IXP" or "IP POI"), where they*  
403 *are currently interconnected (e.g., Los Angeles, San Jose, Seattle, Chicago,*  
404 *Dallas, D.C. Metro, Miami, New York City, and or Atlanta) or such additional*  
405 *IP POIs as may be mutually agreed. Where the Parties utilize IP*  
406 *Interconnection, each Party is responsible for the cost of establishing IP*  
407 *connection from its network to the IP POI, including any TDM-IP media*  
408 *gateway conversions, ports on its network edge router, port charges on the*  
409 *carrier hotel Ethernet switch and any carrier hotel fees for its collocated*  
410 *equipment or any IP transit costs associated with reaching the IP POI.*

411  
412 Needless to say, Sprint's proposed language should be rejected because the parties will  
413 not be establishing IP-to-IP interconnection under this ICA. Separate and apart from that,  
414 though, Sprint's language is defective – and would be defective even if the parties were  
415 going to establish IP-to-IP interconnection – because it calls for the parties to  
416 interconnect at points that are not on AT&T Illinois' network.

417

418 **Q. PLEASE EXPLAIN.**

419 A. If anything is clear about interconnection under section 251(c)(2) of the 1996 Act, it is  
420 that an incumbent carrier is only required to provide interconnection at points that are on

421 its network. Indeed, section 251(c)(2)(B) specifically provides that Interconnection is to  
422 be “at any technically feasible point within the [incumbent] carrier’s network.”<sup>3</sup>

423 Accordingly, the FCC, in its initial set of rules implementing the 1996 Act, noted that  
424 section 251(c)(2) gives competing carriers the right to deliver traffic terminating on an  
425 incumbent LEC’s network at any technically feasible point “on that network,”<sup>4</sup> and  
426 promulgated a rule (47 C.F.R. § 51.305(a)(2)) that requires Interconnection “at any  
427 technically feasible point *within* the incumbent LEC’s network, including, at a  
428 minimum,” six enumerated locations within that network. (Emphasis added.)

429  
430 Sprint’s proposed language, however, requires the establishment of points of IP-to-IP  
431 interconnection that are *not* within AT&T Illinois’ network, but instead are in Los  
432 Angeles, San Jose, Seattle, Dallas, D.C. Metro, Miami, New York City and Atlanta.  
433 Indeed, *none* of the points identified in Sprint’s language is within AT&T Illinois’  
434 network. Even the Chicago IXP location where Sprint’s language states that “the parties”  
435 are currently interconnected and should “exchange Authorized Traffic at the same  
436 locations where the Parties currently exchange data-IP traffic (e.g., internet/e-mail  
437 traffic)”<sup>5</sup> is not on AT&T Illinois’ network. Sprint and AT&T Illinois have no “existing

---

<sup>3</sup> In this testimony, I use “Interconnection” (upper case “I”) to refer to the Interconnection required by section 251(c)(2) of the 1996 Act, and I use “interconnection” to refer more broadly to interconnection in general. Thus, for example, I refer to “IP-to-IP interconnection,” and (in later portions of my testimony) to interconnection facilities that are used not only for traffic mutually exchanged between the parties (*i.e.*, “Interconnection traffic”), but also for, e.g., IXC traffic and backhaul traffic. I have tried to be consistent in this regard, but may not have succeeded in all instances.

<sup>4</sup> 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*”) (subsequent history omitted).

<sup>5</sup> Sprint position statement – DPL Issue 18.

438 internet exchange points”; rather, the data-IP traffic IXP that Sprint references here  
439 would be with AT&T Corp., not AT&T Illinois.

440

441 **ISSUE 16: Must Sprint obtain AT&T’s consent to Sprint’s removal of a**  
442 **previously established POI?**

443

444 **(Attachment 2, Section 2.2.1.4)**

445

446 **Q. WHAT IS THE DISPUTE IN ISSUE 16?**

447 A. This is the first of two issues dealing with the point (or points) of interconnection (“POI”)  
448 between the AT&T Illinois and Sprint networks. In Issue 16, Sprint asks for language  
449 that would permit it to unilaterally eliminate existing POIs it has established with AT&T  
450 Illinois.<sup>6</sup>

451

452 **Q. DO YOU HAVE ANY GENERAL OBSERVATIONS ABOUT THE POINTS OF**  
453 **INTERCONNECTION BETWEEN AT&T ILLINOIS AND SPRINT?**

454 A. One would think that the number and location of POIs between the AT&T Illinois and  
455 Sprint networks would not be much of an issue for the parties since they have  
456 interconnected their networks in Illinois since the early 1990s. Sprint has established  
457 many POIs in the Chicago LATA, including POIs at AT&T Illinois tandems and end  
458 offices. Sprint’s proposal to unilaterally modify the existing interconnection  
459 arrangements, after all these years, would increase the risk of tandem facility exhaust,

---

<sup>6</sup> Sprint’s Issue Statement also asks whether Sprint must “obtain AT&T’s consent to Sprint’s designation of a POI at a technically feasible location on AT&T’s network.” This should not be in dispute because in section 2.2.1.1 the agreed upon language states that the Parties will interconnect their network facilities “at a minimum of one Sprint designated POI on AT&T Illinois’ network” in each LATA. In other words, AT&T Illinois agrees that Sprint may designate a POI at a technically feasible location on AT&T Illinois’ network without obtaining AT&T Illinois’ consent.

460 make the network more susceptible to failure and unnecessarily increase AT&T Illinois'  
461 costs.

462

463 **Q. SHOULD THE AGREEMENT PERMIT SPRINT TO TRANSFORM THE**  
464 **CURRENT MULTI-POI INTERCONNECTION ARRANGEMENT INTO ONE**  
465 **WITH ONLY A SINGLE POI?**

466 A. No. The parties have spent time and money to interconnect their networks at multiple  
467 points in the Chicago LATA. There is, in fact, already an existing POI between Sprint  
468 and AT&T Illinois at **\*\*\*BEGIN CONFIDENTIAL\*\*\*\*\*END**  
469 **CONFIDENTIAL\*\*\*** AT&T Illinois tandems in the Chicago LATA and, as I explain  
470 below, there are additional POIs at other locations. These existing POIs demonstrate that  
471 Sprint itself has recognized that it is most efficient for the parties to interconnect at  
472 multiple locations throughout the LATA. The extent of Sprint's existing interconnection  
473 with AT&T Illinois is shown in Sprint's responses to AT&T Illinois Data Requests 1 and  
474 2, which I attach to my testimony as Schedule CCA-2 (with confidential attachments) and  
475 Schedule CCA-3 (with confidential attachments). These schedules show that Sprint has  
476 an extensive network in the Chicago LATA. In particular, **\*\*\*BEGIN**

477 **CONFIDENTIAL\*\*\*\*\***  
478 **\*\*\*\*\*<sup>7</sup>\*\*\*\*\***  
479 **\*\*\*\*\***  
480 **\*\*\*\*\***  
481 **\*\*\*\*\***

---

<sup>7</sup> Sprint response to Data Request 1, Confidential Attachment DR-1 Part 1 and DR-1 Part 2 (Attached as Schedule CCA-2).

482 \*\*\*\*\*

483 \*\*\*\*\*

484 \*\*\*\*\*<sup>8</sup>\*\*\*\*\*

485 \*\*\*\*\***END CONFIDENTIAL**\*\*\* I cannot, at this point, reconcile this  
486 Sprint data with my own, but by any measure, Sprint has numerous POIs.

487  
488 Language proposed by Sprint would permit it to tear down these existing POIs and to  
489 leave in place a single POI.<sup>9</sup> This is simply not good network engineering.

490  
491 **Q. PLEASE EXPLAIN.**  
492 A. From an engineering perspective, it is not good practice to maintain a single POI on a  
493 permanent basis or to convert an existing multiple POI arrangement into a single POI  
494 arrangement. By selecting a single point of interconnection, Sprint would be putting the  
495 reliability of both networks in a vulnerable position. Though AT&T Illinois agrees that a  
496 single POI helps a new carrier establish a foothold in a given market or LATA, as growth  
497 accelerates, multiple POIs provide the diversity, security and reliability that a single POI  
498 does not.

499  
500 With a single POI arrangement, a catastrophic failure at that single POI location, such as  
501 a fire, network failure, or natural disaster,<sup>10</sup> could completely isolate that carrier's

---

<sup>8</sup> Sprint Response to Data Request 1, Confidential Attachment DR-1 Part 3, (Attached as Schedule CCA-2).

<sup>9</sup> Attachment 2 Issue 16 – Sprint proposed language at 2.2.1.4 – “Notwithstanding the foregoing, Sprint may establish a POI at any other technically feasible location on the AT&T ILLINOIS’ network within the LATA *or Sprint may remove any previously established POIs for Sprint network optimization, subject to the other requirements of this Section 2.2.*”

502 network from the public switched telephone network (“PSTN”). While the PSTN  
503 contains many built-in redundancies to protect itself from such catastrophic events, the  
504 PSTN cannot guarantee protection from a single point of failure to a carrier that chooses  
505 to place all of its access to the PSTN through a single POI.

506  
507 Additionally, problems in one carrier’s network can create a backlash into other carriers’  
508 networks, causing blocked calls. Blocked calls have an exponential effect due to  
509 customer attempts to redial the telephone number. Any long range planning of a  
510 telecommunications carrier’s network should include redundant protections on behalf of  
511 that carrier’s end users as well as the general public’s safety. The successful completion  
512 of calls, including 911 emergency calls, for any carrier’s end users demands nothing less.

513  
514 In these days of heightened sensitivity to national security and network reliability it is  
515 difficult to understand why any carrier would risk its network reliability by choosing to  
516 access the PSTN at a single POI on a long term basis. Even more difficult to understand  
517 is Sprint’s position that it should be allowed to decommission existing POIs and revert its  
518 network back to a single POI arrangement.

519

520 **Q. IF AT&T ILLINOIS AGREES THAT, IN ORDER TO FOSTER COMPETITION,**  
521 **NEW ENTRANTS HAVE THE RIGHT TO A SINGLE POI ARRANGEMENT**  
522 **DURING INITIAL MARKET GROWTH, WHAT IS DIFFERENT REGARDING**  
523 **SPRINT’S REQUEST FOR SINGLE POI?**

---

<sup>10</sup> Hurricane Sandy is a recent example of how an unexpected natural disaster can affect network reliability.

524 A. The biggest difference is that Sprint isn't a new entrant in any sense of the word. On its  
525 own web site, Sprint boasts:

526 1899 – Cleyson L. Brown organizes the Brown Telephone Company in Abilene,  
527 Kansas. This company's evolution over the next century creates the industry  
528 leader and global innovator known as Sprint.

529  
530 1993 – Sprint charged into the 1990s with pacesetting moves for both consumers  
531 and businesses. The company that gave America pin-drop clarity also became a  
532 global leader in voice and data services. Then a new kind of telecom company  
533 emerged in 1993, when Sprint and Centel merged to become a unique provider of  
534 local, wireless and long distance services. Sprint took its wireless strategy a big  
535 step further in the late '90s by building the only nationwide PCS network in the  
536 U.S.

537  
538 In 1987, a visionary entrepreneur named Morgan O'Brien founded a company  
539 called Fleet Net. Renamed Nextel in 1993, the company rapidly established itself  
540 as a nationwide force in the burgeoning world of wireless communications.

541  
542 In less than year's time, Nextel merged with Dial Call and OneComm, acquired all  
543 of Motorola's SMR licenses in the U.S., and received a \$1 billion investment from  
544 wireless pioneer Craig McCaw. By mid-1995, Nextel was on point to serve all of  
545 the nation's top 50 markets.

546  
547 2004 – Sprint Nextel merger is announced.

548  
549 2005 – Sprint Nextel launches operations.<sup>11</sup>  
550

551 Sprint PCS has been providing wireless services and competing with AT&T Illinois for  
552 nearly 30 years.

553

554 Second, Sprint has established extensive interconnection arrangements with AT&T

555 Illinois, including POIs at **\*\*\*BEGIN CONFIDENTIAL\*\*\***

556 \*\*\*\*\*

---

<sup>11</sup> <http://www.sprint.com/companyinfo/history/>.

557 \*\*\*\*\*.<sup>12</sup>\*\*\*\*\*

558 \*\*\*\*\***END CONFIDENTIAL**\*\*\*

559 identified as POIs by Sprint in its response to Data Request 1, Confidential Attachment  
560 DR-1 Part 3, (Attached as Schedule CCA-2).<sup>13</sup>

561  
562 Lastly, in the Data Request responses submitted by Sprint to AT&T Illinois, Sprint  
563 provides the following information:\*\*\***BEGIN CONFIDENTIAL**\*\*\*

- 564 ● \*\*\*\*\*.<sup>14</sup>
- 565
- 566 ● \*\*\*\*\*
- 567 \*\*\*\*\*<sup>15</sup>,
- 568
- 569 ● \*\*\*\*\*
- 570 \*\*\*\*\*<sup>16</sup>,
- 571
- 572 ● \*\*\*\*\*
- 573 \*\*\*\*\*<sup>17</sup>,
- 574
- 575 ● \*\*\*\*\*<sup>18</sup>,
- 576
- 577 ● \*\*\*\*\*
- 578 \*\*\*\*\*<sup>19</sup>,
- 579

---

<sup>12</sup> This information is contained in a matrix I prepared using AT&T Illinois data. This matrix is titled “Sprint Wireless Grps in Illinois” and is attached to my testimony as Schedule CCA-4.

<sup>13</sup> While there are many more CLLI code locations listed by Sprint in this data request response, the CLLI codes ending in the letter “T” denote tandems, so I excluded those from my count of end office POIs.

<sup>14</sup> Sprint’s Response to AT&T Illinois Data Request 1 (Attached as Schedule CCA-2).

<sup>15</sup> Sprint’s Response to AT&T Illinois Data Request 1, CONFIDENTIAL Attachment DR-1, Part 1 (Attached as Schedule CCA-2).

<sup>16</sup> Sprint’s Response to AT&T Illinois Data Request 1, CONFIDENTIAL Attachment DR-1, Part 2 (Attached as Schedule CCA-2).

<sup>17</sup> *Id.*

<sup>18</sup> Sprint’s Response to AT&T Illinois Data Request 1, CONFIDENTIAL Attachment DR-1, Part 3 (Attached as Schedule CCA-2). Sprint’s Response to AT&T Illinois Data Request 2, CONFIDENTIAL Attachment DR 2 (Attached as Schedule CCA-3).

<sup>19</sup> Sprint’s Response to AT&T Illinois Data Request 2, CONFIDENTIAL Attachment DR-2 (Attached as Schedule CCA-3).

580 • \*\*\*\*\*  
581 \*\*\*\*\*  
582 \*\*\*\*\*  
583 \*\*\*\*\*<sup>20</sup>  
584 \*\*\*\*\***END CONFIDENTIAL**\*\*\*\*\*

585  
586 • In all 3 of its currently effective wireless ICAs with AT&T Illinois, Sprint has  
587 agreed to language that requires it to establish a POI to an AT&T Illinois tandem  
588 or end office where interconnection trunks are required.<sup>21</sup>  
589

590 Sprint has clearly established itself as a competitive telecommunications provider and has  
591 a robust and ubiquitous network already in place. For Sprint to now suggest that it  
592 should be allowed sole discretion to degrade its network from its current multiple POI  
593 arrangements to a single POI arrangement flies in the face of the goal of the Act to  
594 promote facilities based-competition.  
595

596 **Q. WHAT ARE THE INCREASED COSTS THAT AT&T ILLINOIS WOULD**  
597 **INCUR?**

598  
599 A. The existing multiple POI arrangement balances facilities investment between AT&T  
600 Illinois and Sprint so that each side bears an equitable portion of the cost to transport  
601 traffic between the networks. In a single POI arrangement, AT&T Illinois would be  
602 forced to bear a disproportionate share of the costs to transport traffic from a single POI  
603 to every tandem in each LATA. Moreover, AT&T Illinois would incur the network

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<sup>20</sup> Sprint’s Response to AT&T Illinois Data Request 3 and CONFIDENTIAL Attachment DR-3 (attached hereto as Schedule CCA-5).

<sup>21</sup> See, Sprint’s Response to AT&T Illinois Data Requests 11 and 12 and Attachment DR-11 (attached hereto as Schedule CCA-6) and section 2.3.2 of the current ICA between Sprint Spectrum and AT&T Illinois dated June 7, 2001: “Unless otherwise mutually agreed, for delivery of traffic over mobile to land or two-way Trunks, the POI shall be established to each **SBC-13STATE** Tandem switch or End Office Switch where trunking is required under this Agreement.

604 costs to reconfigure the existing interconnection arrangement. I discuss these concerns  
605 further in Issues 17(a) and 49, below.

606

607 **Q. HAS THE ISSUE OF DECOMMISSIONING POIs EVER BEEN ADDRESSED BY**  
608 **THIS COMMISSION?**

609 A. Yes. In its November 30, 2004, Order in the MCI Arbitration, Case No. 04-0469, at 88-  
610 89, the Commission ruled that MCI could not unilaterally eliminate established POIs.  
611 (“The Commission concurs with SBC and Staff, however, that, where MCI already  
612 established multiple POIs in a LATA, it shall not decommission them in its sole  
613 discretion.”). This precedent should be followed here.

614

615 **Q. WOULD AT&T ILLINOIS’ LANGUAGE PREVENT SPRINT FROM EVER**  
616 **DECOMMISSIONING A POI?**

617 A. Absolutely not. AT&T Illinois is not proposing language that would prevent Sprint from  
618 ever decommissioning a POI. If the Commission adopts AT&T Illinois’ position on  
619 Issue 16, the only consequence for the ICA is that Sprint’s restrictive language would be  
620 rejected and the ICA would remain neutral on the question of when a POI could be  
621 decommissioned. If the issue ever comes up, I presume that the following language from  
622 pages 88-89 of the Commission’s Order in the MCI Arbitration case would come into  
623 play: “The Commission does not prohibit MCI from dismantling established  
624 interconnection arrangements in all circumstances. Instead, a LEC shall not be allowed  
625 to dismantle any established interconnection arrangement unless it either reaches an  
626 agreement with its interconnection partner, or receives Commission approval based upon  
627 sufficient justification.”

628

629 **Q. HOW SHOULD THE COMMISSION RULE ON ISSUE 16?**

630 A. The Commission should reject Sprint's language for section 2.2.1.4.

631

632 **ISSUE 17(a) Should Sprint be required to establish additional Points of**  
633 **Interconnection (POIs) when its traffic to an AT&T Tandem Serving**  
634 **Area exceeds 24 DS1s?**

635

636 **ISSUE 17(b) Should Sprint be required to establish an additional Points of**  
637 **Interconnection (POI) at an AT&T end office not served by an AT&T**  
638 **tandem when its traffic to that end office exceeds 24 DS1s?**

639

640 **ISSUE 17(c) Should Sprint establish these additional connections within 90**  
641 **days?**

642

643 **(Attachment 2, Sections 2.2.1.3; 2.2.1.3.1; 2.2.1.3.2 and 2.2.1.3.3)**

644

645 **Q. WHAT IS THE GENERAL DISPUTE PRESENTED BY THESE ISSUES?**

646 A. Issue 17 addresses whether Sprint should be required to establish new POIs if there is  
647 sufficient traffic between its network and AT&T Illinois' network.

648

649 **Q. WHAT IS THE SPECIFIC DISPUTE IN ISSUE 17(a)?**

650 A. The dispute is whether Sprint should be required to establish a new POI if its traffic to an  
651 AT&T Illinois tandem serving area exceeds 24 DS1s over three consecutive months, as  
652 AT&T Illinois proposes. A tandem serving area is the geographic area served by an  
653 AT&T Illinois tandem and all of the end offices that subtend that tandem.

654

655 **Q. WHY IS AT&T ILLINOIS' PROPOSAL REASONABLE?**

656 A. First, as I explained in Issue 16, a single POI arrangement concentrates too much traffic  
657 at a single location, increasing the chance that a catastrophic failure at that location, such  
658 as a fire, flood or network failure, could completely isolate that carrier's network from  
659 the PSTN. Any such problems in one carrier's network can create a backlash into other  
660 carriers' networks, blocking calls and leading to more blocked calls as customers attempt  
661 to redial. In these days of heightened sensitivity to national security and natural disasters  
662 like Hurricane Sandy, network reliability is paramount – and a multiple POI network  
663 undoubtedly enhances network reliability. AT&T Illinois' proposal requires  
664 interconnecting carriers to establish additional POIs as the volume of traffic exchanged  
665 between them grows. Sprint cannot dispute this basic premise because, as I explained  
666 above, it has willingly established multiple POIs in Illinois under its current  
667 interconnection arrangement. In fact, the language proposed by AT&T Illinois here is  
668 less restrictive than the current ICA because the current ICA requires Sprint to establish a  
669 POI to each switch at the much lower traffic threshold of 1 DS1 over three consecutive  
670 months.<sup>22</sup>

671

672 **Q. IS THERE ANOTHER REASON?**

673 A. A multiple POI interconnection arrangement balances facilities investment between  
674 carriers. This consideration has increased in importance in light of the FCC's *Connect*

---

<sup>22</sup> Section 2.3.2 of the current ICA between Sprint Spectrum and AT&T Illinois dated June 7, 2001 requires Sprint to establish a POI "to each **SBC-13STATE** Tandem switch or End Office Switch where trunking is required under this Agreement." Section 2.1.11 of the ICA requires the parties to establish direct trunking to an end office when traffic between them at that end office "meets the CCS equivalent of one DS1 (*i.e.* 500 busy hour centum call seconds), for three consecutive Months."

675 *America Order*<sup>23</sup> that does away with reciprocal compensation and establishes a bill and  
676 keep regime for non-access CMRS traffic.

677  
678 A single POI approach, coupled with default bill-and-keep compensation for CMRS  
679 traffic, would impose a significant transport burden on ILECs without reciprocal  
680 compensation as a means of cost recovery. In the *Connect America Order*, the FCC  
681 recognized that under a bill-and-keep framework, the determination of points on a  
682 network at which a carrier must deliver terminating traffic to avail itself of bill-and-keep  
683 (sometimes known as the network “edge”) will be addressed by states through the  
684 arbitration process where parties cannot agree on a negotiated outcome. Transport  
685 payments in a bill-and-keep regime will depend upon how the “edge” is defined and upon  
686 how carriers physically interconnect their networks.<sup>24</sup> With the demise of reciprocal  
687 compensation for CMRS traffic, the time is ripe for the Commission to recognize that a  
688 multiple POI interconnection arrangement equitably balances facilities investment.

689

690 **Q. HAS ANY OTHER STATE COMMISSION REQUIRED MULTIPLE POIs AS**  
691 **TRAFFIC VOLUMES GROW?**

692 A. Yes. In 2000, the Public Utility Commission of Texas in the *MCIW Order* stated that the  
693 FCC’s First Report and Order recognizes that states may go beyond national rules and  
694 “impose additional pro-competitive interconnection requirements, as long as such

---

<sup>23</sup> *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 at para. 1404 (rel. Nov. 18, 2011).

<sup>24</sup> *Id.* at ¶ 776.

695 requirements are otherwise consistent with the 1996 Act and the FCC's regulations.”<sup>25</sup> In  
696 particular, the Texas Commission determined that it was reasonable to require additional  
697 POIs to avoid network or tandem exhaust and required MCIW and SWBT to negotiate  
698 additional POIs when MCIW's traffic usage exceeds a traffic level equal to twenty-four  
699 DS1s:

700 The Commission concludes that a 24-trunk threshold is appropriate for beginning  
701 negotiations for the establishment of direct-end office trunking between SWBT  
702 and WorldCom. The Commission also concludes that a 24-trunk threshold is  
703 appropriate for WorldCom to negotiate direct trunking arrangements with other  
704 local exchange carriers once transit traffic exceeds the 24-trunk threshold.  
705 Additionally, the Commission agrees with the Arbitrators that if traffic exceeds 24  
706 DS-1s, where WorldCom has a POI at a combined SWBT local and access  
707 tandem, that the parties will begin negotiations for the establishment of additional  
708 physical POIs to interconnect WorldCom facilities with the local tandem.<sup>26</sup>

709  
710 The language adopted by the Commission includes the following provision:

711 Where MCIW has a POI at a combined SWBT local and access tandem,  
712 and such area also has another local tandem, if the traffic exceeds 24 DS-  
713 1s, the parties shall negotiate and agree to provide within 90 days the  
714 provision of an additional physical POI to interconnect MCIW facilities  
715 with the local tandem.<sup>27</sup>

716  
717 **Q. WHAT IS THE SPECIFIC DISPUTE IN ISSUE 17(b)?**

718 A. It is identical to the dispute in Issue 17(a) – except that it requires the establishment of a  
719 new POI at an end office not served by an AT&T Illinois tandem when traffic to that end  
720 office exceeds the “24 DS1s over three consecutive months” threshold. All of the

---

<sup>25</sup> *Petition of Southwestern Bell Telephone Company for Arbitration with MCI Worldcom, Inc. Pursuant to Section 252(b)(1) of the Federal Telecommunications Act of 1996*, Docket No. 21791 (September 20, 2000) (*MCIW Order*) at 4.

<sup>26</sup> *Id.* at 6.

<sup>27</sup> *Id.* at 6-7.

721 reasons I set out above apply with equal force to AT&T Illinois' proposed language for  
722 Issue 17(b).

723

724 **Q. WHAT IS THE DISPUTE IN ISSUE 17(c)?**

725 A. AT&T Illinois proposes language that says any new POI required to be established would  
726 be established within 90 days of notification that the threshold has been met.

727

728 **Q. IS THIS A COMMERCIALY REASONABLY INTERVAL?**

729 A. Yes. Based on my experience in the field, 90 days is a reasonable amount of time for the  
730 Parties to plan, order and provision the transport facilities needed to "turn up" a new POI.  
731 It is also consistent with the interval adopted by the Texas PUC in the *MCIW Order*.

732

733 **Q. IS AT&T ILLINOIS' LANGUAGE IN ISSUE 17 NEEDED EVEN IF IT**  
734 **PREVAILS ON ISSUE 16?**

735 A. Yes. If the Commission adopts AT&T Illinois' position on Issue 16, Sprint will not be  
736 able to unilaterally decommission POIs. Because Sprint already has so many POIs in the  
737 Chicago LATA, the practical effect of that ruling would be to create the type of balanced  
738 interconnection architecture I advocate in Issue 17. The Commission must keep in mind,  
739 however, that the ICAs that come out of this proceeding will be available to other  
740 wireless carriers to opt into under section 252(i). So, there must be language in the ICAs  
741 that addresses the question of when a growing carrier should be required to establish new  
742 POIs.

743

744 **Q. HOW SHOULD THE COMMISSION RULE ON ISSUE 17(a) 17(b) AND 17(c)?**

745 A. The Commission should adopt AT&T Illinois' proposed language for Attachment 2,

746 Section 2.2.1.3 through 2.2.1.3.3.

747

748 **ISSUE 49(a): Should the ICA include AT&T's language to address the**  
749 **interim period between the Effective Date and the implementation of**  
750 **the section 251(c)(2) interconnection arrangements set forth in**  
751 **Attachment 2?**

752

753 **ISSUE 49(b): What rates, terms and conditions should apply to convert from**  
754 **the existing interconnection arrangement to the 251(c)(2)**  
755 **interconnection arrangement?**

756

757 **(GTC Section 2.99; Attachment 2, Sections 1.2-1.2.1.2.3; 3.5.4; 3.8.3; and**  
758 **3.8.4)**

759

760

761 **Q. WHAT IS THE DISPUTE IN ISSUES 49(a) AND (b)?**

762 A. These issues involve AT&T Illinois' proposal for "transition" language that establishes a

763 process, and associated rates, terms and conditions, for transitioning from the current

764 network interconnection arrangement with Sprint to an interconnection arrangement that

765 conforms with section 251(c)(2) of the 1996 Act. Ms. Pellerin addresses these issues for

766 AT&T Illinois. I am providing support testimony from a network perspective on two

767 topics relevant to these issues: 1) the difference between a traditional CMRS

768 interconnection arrangement and the Interconnection arrangement Sprint now seeks; and

769 2) the work AT&T Illinois would have to do to "transition" from one arrangement to the

770 other.

771

772 **Q. WHAT IS THE DIFFERENCE BETWEEN THE CURRENT**  
773 **INTERCONNECTION ARRANGEMENT AND THE INTERCONNECTION**  
774 **ARRANGEMENT SPRINT NOW SEEKS?**

775 A. Sprint's current CMRS interconnection arrangement, like that of other CMRS providers,  
776 dates back prior to the 1996 Act and evolved on a negotiated business-to-business basis.

777

778 In a CMRS arrangement, the CMRS provider typically orders its facilities from the  
779 appropriate tariff and establishes these facilities to interconnect to each ILEC tandem in  
780 the LATA for the exchange of traffic with the ILEC, as well as to "backhaul" traffic to  
781 and from the CMRS provider's cell sites. (To be clear, "backhaul" traffic is not traffic  
782 exchanged between the parties; it is traffic that Sprint is hauling between two points on  
783 its own network using, in the present context, facilities Sprint purchases from AT&T  
784 Illinois.) The Parties then agree to "share" in the cost of the portion of these facilities  
785 utilized for interconnection based on the percentage (i.e., the shared facility factor) set  
786 forth in their ICA. This arrangement is not, strictly speaking, a section 251(c)(2) POI  
787 arrangement that is typical of CLEC arrangements because the parties are not exchanging  
788 traffic at a single location on a given route. Rather, it takes on more of a dual POI look  
789 and feel, with one POI on the ILEC's network (the point at which the CMRS provider  
790 hands traffic to the ILEC) and one POI on the CMRS provider's network (the point at  
791 which the ILEC hands traffic to the CMRS provider).

792

793 **Q. WHAT IS A SECTION 251(c)(2) ARRANGEMENT?**

794 A. Sprint is asking to re-configure its interconnection arrangement to a CLEC arrangement  
795 (also referred to as a “section 251(c)(2) Interconnection”) to take advantage of the ruling  
796 concerning entrance facilities in the *Talk America* case.<sup>28</sup>

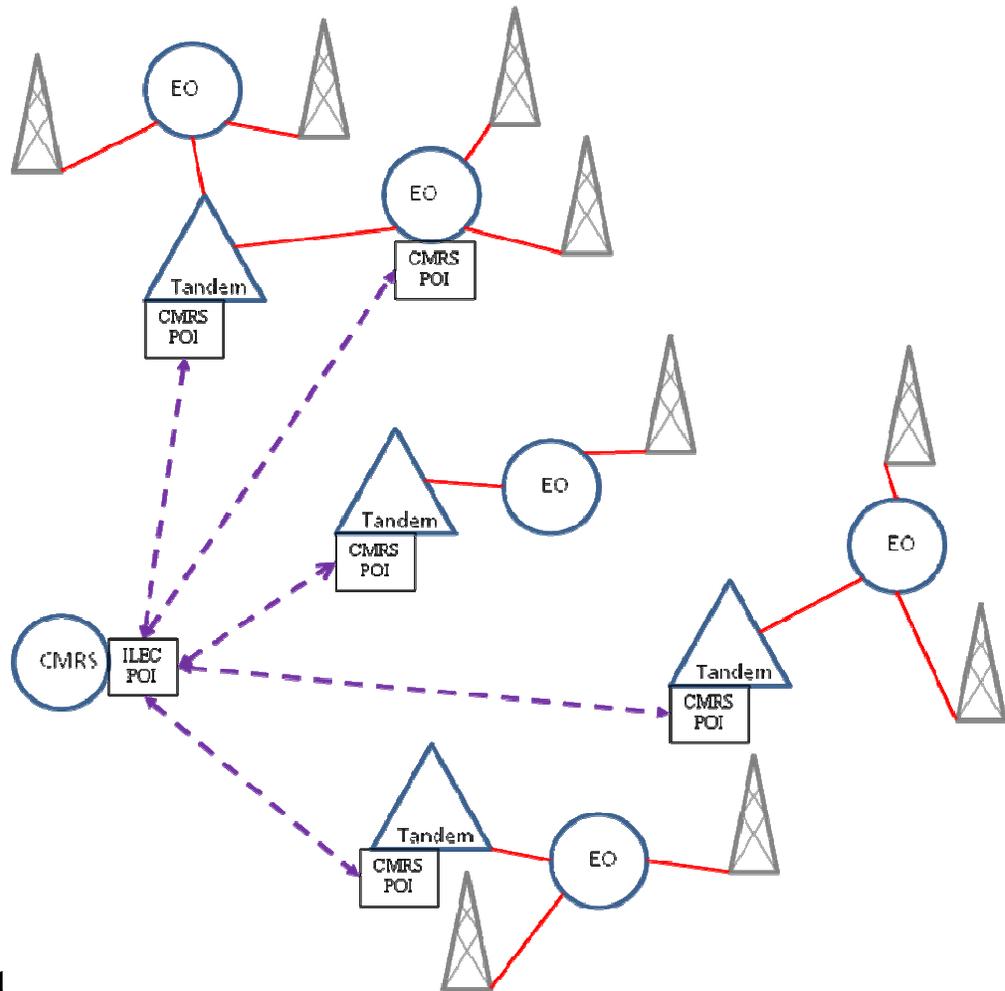
797  
798 The rules that govern a 251(c)(2) Interconnection differ from a CMRS arrangement in  
799 that a POI must be on the ILEC’s network and each carrier is responsible for the facilities  
800 on its respective side of the POI, regardless of which party originates the traffic. In  
801 addition, the entrance facilities addressed in the *Talk America* case may only be used for  
802 the purpose of 251(c)(2) Interconnection and may not be used for backhaul or other  
803 services the carrier may seek to provide. Ms. Pellerin explains the differences between  
804 these two interconnection models in her discussion of Issue 49.

805  
806 **Q. DO YOU HAVE DIAGRAMS THAT SHOW THE DIFFERENCES BETWEEN**  
807 **THESE INTERCONNECTIONS ARRANGMENTS?**

808 A. Yes. Diagram 1 depicts a typical CMRS interconnection arrangement.

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<sup>28</sup> *Talk America, Inc., v. Michigan Bell Tel. Co.*, 131 S.Ct. 2254 (June 9, 2011).



809 **Diagram 1**

810

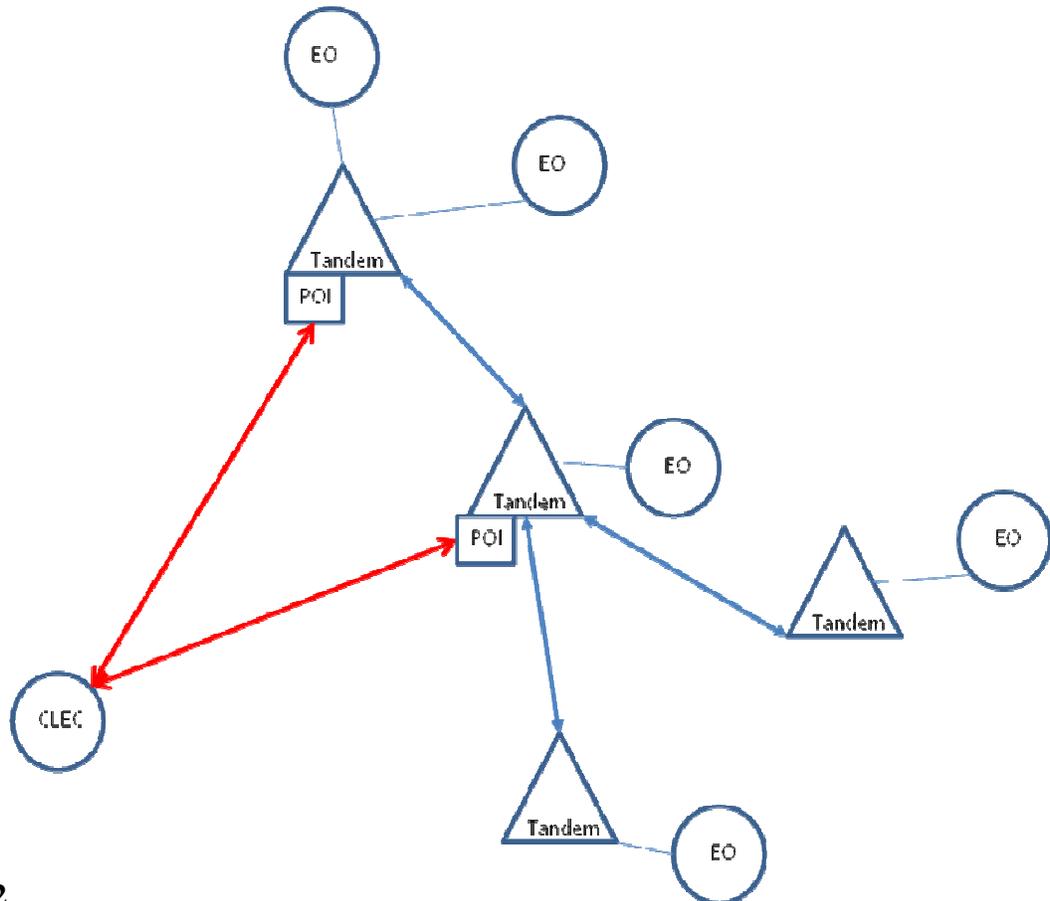
811 In a typical CMRS arrangement, there are reciprocal POIs (i.e., a POI on each party's  
812 network) for each interconnection, with facilities running between those POIs. Under  
813 this arrangement, the CMRS carrier delivers traffic to AT&T Illinois at the CMRS  
814 carrier's POI on AT&T Illinois' network and AT&T Illinois delivers traffic to the CMRS  
815 carrier at the ILEC's POI on the CMRS carrier's network. The CMRS carrier orders  
816 facilities out of the appropriate tariff and establishes a POI at each AT&T Illinois tandem  
817 in the LATA as well as at any AT&T Illinois end offices where trunks are required.

818 Because these facilities are ordered and billed out of the tariff, the CMRS carrier is able

819 to use these facilities for any of its needs, including backhaul, ancillary services, and  
820 interconnection. The cost of the portion of the facilities utilized for interconnection is  
821 then shared based on the shared facility factor. This cost sharing arrangement goes hand-  
822 in-hand with the reciprocal POI feature of the CMRS interconnection model. Typically,  
823 this factor is estimated and can be reviewed and adjusted by either of the Parties in  
824 accordance with the terms of their ICA.

825

826 Diagram 2 illustrates a Section 251(c)(2) Interconnection arrangement.



827 **Diagram 2**

828

829 In a 251(c)(2) arrangement, pursuant to its ICA, the CLEC may order existing entrance  
830 facilities (i.e., transport facilities that connect the CLEC and ILEC network and are used  
831 for the mutual exchange of traffic) at TELRIC-based rates to establish at least one POI  
832 on the ILEC network, and each carrier is solely responsible for the facilities on its side of  
833 the POI.<sup>29</sup> No reciprocal POI is established on the CLEC network. In addition, there is  
834 no cost sharing for entrance facilities in a 251(c)(2) arrangement. CLECs establish  
835 additional POIs as they reach a traffic volume threshold, consistent with the position  
836 AT&T Illinois proposes here. Because the CLEC orders and obtains entrance facilities at  
837 a TELRIC-based rate for interconnection, these facilities are used *solely* for the purpose  
838 of interconnection under 251(c)(2). The CLEC cannot use entrance facilities for  
839 backhaul or other purposes, because facilities for those non-251(c)(2) Interconnection  
840 uses are not available at TELRIC-based rates, but instead are purchased out of AT&T  
841 Illinois' tariff, at access rates.

842

843 **Q. DOES AT&T ILLINOIS AGREE IN PRINCIPLE THAT SPRINT CAN RE-**  
844 **CONFIGURE ITS INTERCONNECTION ARRANGEMENT TO A 251(c)(2)**  
845 **ARRANGEMENT?**

846 A. Yes.

847

848 **Q. IS THERE ANY WORK AT&T ILLINOIS WOULD NEED TO PERFORM IN**  
849 **ORDER FOR SPRINT TO TRANSITION FROM ITS CURRENT CMRS**  
850 **ARRANGEMENT TO A 251(c)(2) ARRANGEMENT?**

---

<sup>29</sup> In the ICA at issue in this case, the parties have agreed to use the term "Interconnection Facilities" for the facilities generally referred to as "entrance facilities".

851 A. Yes. The transition that Sprint seeks here would be no small task and would require  
852 extensive work on the part of AT&T Illinois' Network Planning and Engineering  
853 ("NP&E") organization. Since the current arrangement utilizes facilities that Sprint has  
854 purchased out of the tariff and that carry both backhaul and Interconnection traffic over  
855 the same facilities, the interconnection trunk groups would have to be transitioned and  
856 groomed off of the existing arrangement to separate TELRIC-based entrance facilities  
857 (ordered from the ICA) that would be used solely for the purpose of 251(c)(2)  
858 Interconnection.

859

860 NP&E would need to ensure that the transition and grooming would not impact customer  
861 services. This is achieved, in part, by performing the work in a maintenance window  
862 agreed to by the Parties. NP&E would also have to determine the availability of transport  
863 facilities and of the equipment needed to activate fiber, perform multiplexing, and  
864 terminate the entrance facility. Other tasks that might need to be performed include  
865 providing additional power, floor space and HVAC needed for any new equipment.

866

867 Because the arrangement would change the POI architecture, NP&E would also need to  
868 identify *interoffice* transport facilities that would be required for AT&T Illinois to  
869 provide transport for interconnection trunk groups to the various offices on its respective  
870 side of the POI. All of the activities I described above would have to be performed for  
871 these interoffice transport facilities.

872

873 Sprint has many existing POIs at AT&T Illinois end offices. Like the tandem  
874 connections discussed above, these direct end office connections would presumably be  
875 taken down, so AT&T Illinois would need to transition the traffic carried over these  
876 facilities to the new arrangement.

877  
878 There may be additional work that I have not identified - such as physical work at the  
879 tandems or end offices involved with the transition and field work that might be required  
880 to provide interoffice dedicated transport on the AT&T Illinois side of the new POI.

881

882 **III. CONCLUSION**

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

884 **A. Yes.**

**ICC Docket No. 12-0550**  
**AT&T Illinois Exhibit 2.0**  
**Carl C. Albright, Jr. Direct Testimony**

**Schedule CCA-1**

