Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

REPLY
OF
SPRINT NEXTEL CORPORATION

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Sprint Nextel Corporation ("Sprint") hereby replies to comments filed on the Further Notice of Proposed Rulemaking ("FNPRM") portion of the Commission's *USF/ICC Transformation Order*.[1] The FCC should reject the position of the Regional Bell Operating Companies ("RBOCs") and require parties to negotiate IP-to-IP interconnection issues in good faith. The Commission should further adopt a regulatory backstop to ensure this requirement has meaning. Sprint also responds below to comments on an appropriate framework for TDM

[1] *Connect America Fund, et al.*, Docket Nos. 10-90, *et al., Report and Order and Further Notice of Proposed Rulemaking*, FCC 11-161 (Nov. 18, 2011), published in 76 Fed Reg. 73830 (Nov. 29, 2011) ("*USF/ICC Transformation Order*").

interconnection. In Appendix A, Sprint has provided a draft framework, and in Appendix B, Sprint responds to AT&T's proposed rules for the application of bill-and-keep to terminating PSTN traffic.

I. INTRODUCTION AND SUMMARY.

Sprint addresses two of the subjects raised in the *FNPRM* in these reply comments: baseline principles to govern IP-to-IP interconnection, and rules to govern bill-and-keep for terminating TDM traffic.

Sprint agrees with the RBOCs that much of the regulatory regime developed for narrow-band, voice-centric TDM networks is not appropriate for voice traffic transmitted over modern IP networks. However, the Commission can and must adopt and enforce a good faith negotiation requirement, along with a regulatory backstop, to promote the efficient and rapid migration of voice traffic to IP networks.

- *Sprint is not asking that TDM network operators be "forced" to build IP networks in order to accommodate IP voice interconnection.* IP-to-IP interconnection is far more efficient than TDM-based technology, and Sprint advocates such interconnection at one or more of the IP hubs where two carriers already have a presence. This does not involve "forcing" TDM carriers to build new IP networks for IP voice interconnection, and would help to discourage ILECs' strategy of increasing the costs of their competitors by continued assessment of above-cost charges for interconnection with their TDM networks.

- *The good faith negotiation requirement (with an associated regulatory backstop mechanism) is critically important to the efficient and rapid migration of voice traffic to all IP networks.* AT&T and Verizon – in contrast to the rest of the industry – prefer to be under no obligation to negotiate in good faith and to be insulated from any regulatory review if the failure to negotiate in good faith results in agreements with unreasonable terms and conditions, or worse, no agreement at all. Given their sheer size and market power, these RBOCs should not be allowed to evade these regulatory safeguards.

- *The RBOCs' "no regulation/no good faith negotiation requirement" position is incompatible with the mandates that Congress has imposed on the FCC.* Section 706 directs the Commission to determine whether IP voice and other advanced capabilities are being deployed "to all Americans in a reasonable and timely basis." Based on the current evidence in the record – the failure of any ILEC to demonstrate it is executing

with its rivals IP voice interconnection agreements – the FCC could determine that IP voice services are not being made available to the public on a timely basis.

- *The FCC should confirm that its existing complaint procedures apply to IP networks*. The FCC should invoke its ancillary authority and declare that its complaint procedures (with which carriers are very familiar) apply whether a defendant claims it is a telecom or information services provider.

- *AT&T's convergence argument should be rejected*. AT&T claims that the "IP ecosystem obliterates" the ability of regulators to treat IP packets differently and that as a result, if the FCC oversees the exchange of IP voice traffic, that oversight necessarily will spill over to and "distort the natural development of the Internet." AT&T acknowledges that IP voice traffic will most likely be exchanged (at least initially) over "physically separate interconnection facilities." FCC oversight of such a link for the exchange of voice traffic will have no impact on the Internet generally, nor will it spill over to the peering and transit arrangements that IP networks use for the exchange of different IP traffic over different IP interconnection facilities.

- *The FCC should confirm that IP networks seeking to exchange voice traffic with an ILEC or its affiliated IP network are to be treated as a "co-carrier" and not as a customer*. The Commission should assert that Verizon's SIP Gateway Service is not a reasonable offer of a carrier-to-carrier IP voice interconnection arrangement, but rather an offer to enter into a vendor-customer relationship where Verizon is the vendor. The FCC should repeat its longstanding policy that wireless carriers are to be treated as a "carrier, not a customer or end user."

- *The FCC has ample authority to adopt a good faith negotiation requirement – including for IP networks*. The hallmark of the public voice communications marketplace has always been the ability of consumers to call anyone else, regardless of their service provider – a capability that is made possible only through interconnection. Preserving this fundamental capability throughout the entire public voice communications marketplace is critical to ensure the availability of "a rapid, efficient, Nation-wide and worldwide wire and radio communications service with adequate facilities at reasonable charges." Indeed, § 706(b) explicitly directs the FCC to take whatever steps are needed (regulatory or de-regulatory) to ensure that IP-based voice services are being made available on a "timely basis . . . to all Americans."

Sprint also proposes (in the attached Appendix A) a narrow set of rules to govern TDM interconnection while such interconnections remain. Sprint believes that these rules will help ensure that bill-and-keep is implemented in an efficient and equitable manner, and hasten the

transition to all-IP networks. Furthermore, these rules avoid many of the problems inherent in the rules proposed by AT&T (see attached Appendix B for analysis of AT&T's proposed rules).

II. THE GOOD FAITH NEGOTATION REQUIREMENT, COUPLED WITH A REGULATORY BACKSTOP, ARE THE MOST CRITICAL COMPONENTS TO THE EFFICIENT AND RAPID MIGRATION OF VOICE TRAFFIC TO IP NETWORKS

There are many subjects on which Sprint agrees with the RBOCs. Among other things,

- Sprint agrees that much of the regulatory regime developed for narrowband, voice-centric TDM networks is not appropriate for ordinary voice traffic transmitted over modern IP networks;
- Sprint agrees that regulatory intervention is not warranted in current IP peering and transit arrangements;
- Sprint shares the RBOC concerns over proposals that may emerge at the upcoming World Conference on International Telecommunications in Dubai to expand the scope of the International Telecommunications Regulations into matters involving the Internet, including Internet governance and content regulation. Specifically, Sprint agrees with Chairman Genachowski that these proposals would be "devastating to the future of the Internet,"[2] and with Commissioner McDowell's observation that these efforts would "merely imprison the future [of the Internet] in the regulatory dungeon of the past."[3]

  However, this debate over possible new government intervention into virtually all aspects of international Internet traffic is not relevant to domestic IP interconnection for ordinary voice traffic;[4]
- Like the RBOCs, Sprint believes that most details of IP voice interconnection should, in the first instance, be negotiated between the affected parties; and
- Sprint further agrees with the RBOCs that to maximize fully the efficiency of IP technology, IP network operators should presumptively exchange ordinary voice traffic at existing "IP hubs," or Internet Exchange Points

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[2] *See* Remarks of Chairman Genachowski before the GSMA Mobile World Congress 2012, at 8 (Feb. 27, 2012).

[3] *See* Remarks of Commissioner McDowell before the GSMA Mobile World Congress 2012, *An Unfettered and Mobile Internet: the Best Engine for Global Economic Growth*, at 4 (Feb. 28, 2012).

[4] European regulators, such as those in Germany, France and the U.K., have long-standing domestic interconnection requirements in place for all facilities-based providers of voice services, including those delivering their services by means of an IP platform, without creating any concern that this fundamental interconnection requirement has resulted in "regulation of the Internet."

("IXPs"). Of course, even with this presumption, two IP network operators would be free to agree to different exchange point locations if they determine this would better serve their needs.

Nevertheless, there is a fundamental disagreement between the RBOCs, on one hand, and Sprint and most other parties, on the other hand, regarding the need for a good faith negotiation requirement (with an appropriate regulatory backstop to ensure this requirement has meaning), as the following table illustrates:

	RBOCs	**Sprint & Others**
Negotiate Terms of IP Voice Interconnection	**Yes**	**Yes**
Parties Required to Negotiate in Good Faith	**No**	**Yes**
Regulatory Backstop	**No**	**Yes**

Thus, the principal difference in positions between the RBOCs and other members of industry is that the RBOCs, as the largest providers of voice services with the greatest market power,[5] want no obligation to negotiate in good faith and to be insulated from any regulatory review if the failure to negotiate in good faith results in agreements with unreasonable terms and conditions, or worse, no agreement at all.

AT&T defends its position by asserting that a good faith negotiation requirement would be "not only needless, but affirmatively harmful," because such a requirement supposedly would

[5] AT&T and Verizon each provide voice services to far more customers than any other firm. CenturyLink claims it is "the third largest telecommunications company in the United States." *See* http://ir.centurylink.com/phoenix.zhtml?c=112635&p=irol-IRHome.

"distort each party's bargaining incentives."[6] By definition, however, a "good faith" obligation is designed to ensure that both parties to a negotiation have appropriate bargaining incentives. To suggest that "good faith" is a distortion of these incentives merely confirms that firms that wield enormous market power have the incentive (and ability) to harm their much smaller competitors.

Chairman Genachowski reiterated only last month that "promoting competition remains at the core of the FCC's work."[7] The National Broadband Plan recognized that interconnection between competing networks is the essential component for competition to exist: "For consumers to have a choice of service providers, competitive carriers need to be able to interconnect their networks with incumbent providers":

> Basic interconnection regulations, which ensure that a consumer is able to make and receive calls to virtually anyone else with a telephone, regardless of service provider, network configuration or location, have been a central tenet of telecommunications regulatory policy for over a century. For competition to thrive, the principle of interconnection – in which customers of one service provider can communicate with customers of another – needs to be maintained.[8]

The Broadband Plan therefore recommended that the FCC "clarify interconnection rights and obligations and encourage the shift to IP-to-IP interconnection where efficient."[9]

The RBOCs' proposal would give them a license to determine – unilaterally and without any regulatory review – the terms under which they will interconnect with their much smaller

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6 AT&T Comments at 2 and 46. Verizon claims that a requirement to "negotiate IP interconnection in good faith *could* have unexpected, harmful results for consumers." Verizon Comments at 21 (italics added). Verizon does not explain how a good faith negotiation requirement imposed on network operators could possibly "harm" consumers.

7 *See* Remarks of Chairman Genachowski before the GSMA Mobile World Congress 2012, at 4 (Feb. 27, 2012).

8 National Broadband Plan at 49, Recommendation 4.10.

9 *See ibid.*

rivals. This same approach was tried in the past, initially with local voice services and later with emerging competition for long distance services. In both instances, the Bell System refused to permit its smaller competitors to interconnect on reasonable terms, and in both instances the government was forced to bring antitrust cases against the Bell System.[10] Of course, emerging competition in these voice markets suffered in the meantime, as this massive litigation dragged on for years.

IP-based voice communications, which are destined to replace obsolete TDM-based services, are too important to the nation's economy and consumer welfare to be stymied during yet another round of litigation. Congress' directives in this matter are unequivocal: the FCC "shall encourage" the deployment of IP voice and other advanced broadband applications on a "timely basis . . . to all Americans."[11] Delegating to the RBOCs the authority to determine unilaterally whether and how their smaller rivals can interconnect with them *via* IP (if ever) for the exchange of ordinary voice traffic will not promote deployment of advanced broadband networks and will not make advanced broadband voice services available on a "timely basis . . . to all Americans."

Sprint urges the Commission to reject the RBOC "no regulation/no good faith negotiation requirement" position. A two-pronged regime designed to moderate the behavior of a few firms possessing extensive market power – negotiate IP voice interconnection agreements in good faith subject to a regulatory backstop – does not constitute "regulation of the Internet." Rather, such a narrowly focused set of requirements is essential to the future of competition in the voice

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[10] For a high-level summary of this Bell System antitrust litigation, *see* Sprint Reply Comments at 23-23 (May 23, 2011).

[11] 47 U.S.C. § 1302(a).

communications marketplace and, in turn, to future consumer welfare and the continued vibrancy of our nation's economy.

A. SPRINT IS NOT ASKING THAT TDM NETWORK OPERATORS BE "FORCED" TO BUILD IP NETWORKS IN ORDER TO ACCOMMODATE IP VOICE INTERCONNECTION

Several ILECs ask the Commission to confirm that the right to IP voice interconnection is "limited to those situations in which both parties (*i.e.,* the requesting carrier *and* the carrier receiving the request) have already deployed IP trunking capabilities."[12] CenturyLink, for example, asks the Commission to be "careful not to force carriers to build IP facilities that they do not already have in place":

> [I]t would make no sense to require a terminating carrier to deploy an IP network to accommodate IP-to-IP interconnection where the terminating carrier has not already deployed that network.[13]

CenturyLink adds that its "ILEC affiliates" are "not offering IP-based services and generally have not deployed the media gateways and other functionalities that are necessary to exchange traffic in IP format" and that as a result, these affiliates cannot provide IP voice interconnection "without billions of dollars of network investment."[14]

Sprint agrees that a firm which does not use an IP network with voice traffic should not be subject to a good faith IP voice interconnection negotiation requirement today.[15] Indeed, as Sprint has explained, the good faith negotiation requirement "applies only to those firms that (a)

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12 Rural Associations (NECA *et al.*) Comments at 39 (italics in original).

13 CenturyLink Comments at 53.

14 *Id.* at 48.

15 Sprint has also pointed out, however, it is "almost certain that the FCC will need to establish specific date by which all providers of voice traffic must be willing and capable of exchanging voice traffic *via* IP interconnection – if only by making arrangements with a third party that is capable of interconnecting on an IP basis with other networks and then converting the incoming IP traffic to TDM." Sprint Comments at 25.

operate an IP network and (b) use that IP network in transporting some of their own voice traffic":

> For these firms, IP interconnection not only is technically feasible, but it can also be implemented readily, because the IP network operator has already installed the equipment needed (e.g., SIP functionality) to support IP interconnection.[16]

What is more, since many firms with such IP networks have a mix of both IP and TDM voice customers, these IP network operators have already installed necessary IP-to-TDM network conversion equipment so their IP voice customers can call their TDM customers (and *vice versa*).

Sprint objects, however, where a carrier uses its corporate structure to avoid the expansion of IP interconnection. While CenturyLink's "ILEC affiliates" may not be offering IP-based services, CenturyLink is certainly providing such services to customers of its "ILEC affiliates" – including those customers served by a TDM switch or by a softswitch (on which CenturyLink has chosen not to activate the IP features).[17]

In fact, CenturyLink states it currently operates "one of the largest, most sophisticated [IP] networks in the world," with this network handling "over 3 billion minutes per month of VoIP traffic":[18]

> The Qwest network backbone covers the entire continental United States and has one of the largest fiber footprints in the U.S., capable of supporting 40 Gbps data transmission rates now and 100 Gbps soon.[19]

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[16] Sprint Comments at 8.

[17] *See* CenturyLink Comments at 46 n.96. CenturyLink does not explain why it has not activated the IP features of its softswitches.

[18] *See* CenturyLink webpage, *SIP Trunking* (visited March 6, 2012). *available at* http://www.centurylink.com/business/products/products-and-services/voip-adv-voice/sip-trunk.html.

[19] *See* Century Link News Release, *Qwest Connectivity Powers CoSentry's Security Cloud Solutions* (March 16, 2011), *available at* http://news.centurylink.com/index.php?s=43&item=2194.

CenturyLink further states that the voice traffic carried over its "OC-192 IP data backbone utilizes "robust QoS to ensure that time-sensitive network traffic is prioritized and routed correctly."[20] CenturyLink specifically states that its IP network provides "secure, business-grade service with greater reliability than traditional public Internet voice service."[21]

CenturyLink's assertion – that its ILEC affiliates cannot support IP voice interconnection without investing "billions of dollars" – is at best misleading. IP interconnection does not require that every customer on the ILEC network be using IP-based services in their home or office; rather, it only requires that carriers have the ability to interconnect using IP. CenturyLink already owns and operates "one of the largest, most sophisticated [IP] networks in the world." Its ILEC affiliates are not each required to duplicate this network, or to convert all of their customers to IP-based devices. Rather, as it is already doing, CenturyLink merely needs to use its existing IP network to provide IP voice and other IP-based services to all of its customers, including those served by its ILEC affiliates.[22]

CenturyLink can readily interconnect its current IP network with Sprint's IP network to exchange their voice traffic, and the cost of such interconnection would be modest (and especially when compared to TDM interconnection):

- CenturyLink's and Sprint's IP networks are already connected to at least seven of the same Internet exchange points ("IXPs") across the county;[23]

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[20] *See* Qwest iQ SIP Trunk, *available at* http://www.centurylink.com/business/asset/product-info/sip-trunk-differentiators-ss090953.pdf (visited March 6, 2012).

[21] *See* Century Link News Release, *CenturyLink Launches VoIP Services in Seven States* (Aug. 16, 2011), *available at* http://news.centurylink.com/index.php?s=43&item=2838.

[22] See CenturyLink web site advertising small business VoIP service at http://www.centurylink.com/small-business/products/business-phone/voip/ and web site advertising large business VoIP service at http://www.centurylink.com/business/products/products-and-services/voip-adv-voice/list.html\

[23] *See* Sprint Comments at 18.

- The parties might agree to use a 10 Gbps Ethernet ("10 GigE") cross connect link to connect their respective networks for the exchange of IP voice traffic;
- A 10 GigE link has capacity of 192 DS3 facilities (and a DS3 is the size of a TDM interconnection facility that is commonly used in connecting to a LATA tandem switch); and
- The cross connect link could be as short as 50 to 80 feet with a cost of ~$350 per month if parties are collocated in the same building. If not collocated, the cost to make a comparable 10 GigE connection between buildings would be ~$3500 per month. Either is very favorable compared to a monthly cost of $192,000 for the equivalent capacity for 192 DS3s.

As is readily apparent, the cost to exchange voice traffic between IP networks is a tiny fraction of the cost to exchange voice traffic between TDM networks.[24]

CenturyLink and Sprint would each benefit enormously by IP voice interconnection. Both companies could improve the quality of the voice services they provide to their respective customers, while reducing dramatically their respective costs of transporting voice traffic – or in CenturyLink's own words, realize "the efficiency, cost savings and improved functionality inherent in IP technologies."[25] And, given that CenturyLink's backbone is capable of delivering voice calls to all of its customers, including those served by TDM switches, CenturyLink and Sprint should be able to exchange voice traffic between all of their customers (regardless of where they may be located across the country and regardless of whether they are served today by IP or TDM technology). In other words, to meet the needs of its own customers, CenturyLink has already installed IP-to-TDM conversion equipment, so one of its TDM customers can receive

[24] The cost efficiencies in using IP networks are not limited to link expenses. For example, a 10 Gig Ethernet switch or router port is much less expensive than a broadband DACS with channelized OC-192.

[25] CenturyLink Comments at 44-45. Indeed, given the size of CenturyLink's IP network, Sprint suspects CenturyLink would incur little or no additional costs in transporting Sprint's IP voice traffic over its IP network. *See* Sprint Comments at 21 ("It is readily apparent that if voice traffic requires two percent (2%) of total [IP network] capacity, or even four percent (4%) – or for that matter, even eight percent (8%), IP network operators will have sufficient spare capacity to accommodate voice traffic.").

a call whether originated on CenturyLink's own IP network or delivered to CenturyLink by an interconnecting IP network such as Sprint.

CenturyLink asserts without support that there is "no evidence that VoIP providers are being harmed in the market by the absence of IP-to-IP interconnection arrangements."[26] This statement is simply incorrect. By refusing to allow IP voice interconnection, CenturyLink forces other carriers to connect to CenturyLink's LATA-based TDM networks for delivery of their calls to CenturyLink's customers. This has several adverse consequences for interconnecting carriers:

- An originating IP network must incur the cost of converting its traffic to TDM before delivery to CenturyLink;[27]
- An originating network would install its IP-TDM conversion equipment in the same building it houses its other network equipment. This means as a practical matter that the IP network must continue to use the inefficient TDM facilities that connect its network to CenturyLink's TDM network; and
- By being forced to connect to CenturyLink's TDM network, originating networks are forced to pay CenturyLink's above-cost intercarrier compensation charges – charges that the interconnecting carriers could avoid if the two firms instead exchanged traffic using their respective IP networks.

Originating IP networks would incur none of these costs if CenturyLink would exchange voice traffic with its competitors over their respective existing IP networks.

In summary, Sprint agrees with CenturyLink and other ILECs that TDM network operators without an IP network within their corporate umbrella are not subject to the good faith IP voice interconnection negotiation requirement. But carriers cannot use their corporate structure as a shield to prevent the conversion of the network to IP. ILECs that decline to pursue

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[26] CenturyLink Comments at 51.

[27] A CenturyLink VoIP customer's service must also be converted from IP to TDM before interconnecting with another VoIP service provider customer. In other words, two IP to TDM conversions are required, one for CenturyLink's VoIP customer and one for the competing VoIP service provider. It is nonsensical and inefficient for two providers of VoIP to both convert the IP voice to TDM before exchanging traffic.

IP voice interconnection, despite the sizable benefits available by use of this technology and existing infrastructure available for such connections, are increasing the costs of their rivals by forcing the payment of above-cost intercarrier compensation charges associated with interconnection with their TDM networks.

B. THE GOOD FAITH NEGOTIATION REQUIREMENT (WITH AN ASSOCIATED REGULATORY BACKSTOP MECHANISM) IS CRITICALLY IMPORTANT TO THE EFFICIENT AND RAPID MIGRATION OF VOICE TRAFFIC TO ALL IP NETWORKS

AT&T and Verizon, as noted above, oppose any good faith negotiation requirement. Such a basic requirement is unnecessary, they claim, because they have "every incentive" to negotiate IP voice interconnection agreements, as such interconnection would enable them to reduce dramatically their costs of providing their voice services. After all, the Wireline Bureau, using "conservative assumptions," has estimated that the incremental network cost of transporting IP voice per customer would be less than one penny a year.[28]

One might ordinarily think that the RBOCs, as the largest providers of voice services, would have a strong incentive to negotiate IP voice interconnection agreements and thereby achieve these significant cost reductions. Yet, AT&T and CenturyLink have not identified a single IP voice interconnection agreement that they have successfully executed, while Verizon reports having "one agreement in place" – presumably the same agreement it identified one year

[28] *See* Sprint Comments at 3 and 16 (Feb. 24, 2012), *citing 2008 Intercarrier Compensation NPRM*, 24 FCC Rcd 6475, 6613-14 ¶¶ 260-61 (2008).

ago.[29] (By way of comparison, Sprint is executing a growing number of IP voice interconnection agreements, but all of these contracts are with competitive carriers.[30])

The simple fact is that competitive carriers have not made any meaningful progress in establishing IP voice interconnection agreements with any ILEC. This lack of progress is due to two countervailing factors – the RBOC terminating access monopoly and their dominant market power – that drive the RBOCs to pursue a different agenda with their much smaller rivals.

In an all-IP voice world, the RBOCs will retain the same terminating access monopoly they possess today over voice traffic handled by TDM networks.[31] Among other things, Sprint cited to an expert retained by the European Commission, who concluded that that use of IP networks will "not remove the termination monopoly in voice services" because this monopoly is "based on the telephone number" and that monopoly "will remain" in an all IP world.[32]

AT&T has never responded to this point. Instead, it now claims that the "prevalent" use of indirect interconnection "opens up a multiplicity of routes into any broadband ISP's network," which AT&T asserts "refutes arguments" that ILECs the size of AT&T possess a "terminating

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[29] *See* Verizon Comments at 14. *Compare* Verizon Comments at 12 n.17 (April 14, 2011) ("[E]arlier this year, Verizon signed a commercial agreement with Bandwidth.com under which the parties agreed to exchange VoIP traffic at a rate of $0.0007 per minute."). Verizon does not disclose whether this agreement involves the exchange of traffic with the customers of its FiOS affiliate only, or whether it includes traffic involving its ILEC affiliates as well.

[30] The FCC might find of interest that Sprint's IP voice interconnecton contracts generally are less than 20 pages in length, as compared to the several hundred page contracts Sprint has today with many ILECs. This difference is based on a cooperative relationship between parties that want to exchange traffic with each other – as opposed to the adversarial relationship that exists between ILECs and what they see as their competitors.

[31] *See* Sprint Reply Comments, at 11-14 (May 23, 2011).

[32] *See id.* at 12-13, *quoting* TERA Consultants, *Study on the Future of Interconnection Charging Methods*, 2009-70-MR-EC, at 10, 69 ad 73-74 (Nov. 23, 2011), *available at* http://ec.europa.eu/information_society/policy/ecomm/doc/library/ext_studies/2009_70_mr_final_study_report_F_101123.pdf.

access monopoly.[33] But as another expert reported to the European Commission, this AT&T argument – "the migration to IP will solve the call termination problem, thanks to IP's inherent capabilities to route traffic over multiple paths" – is "simply incorrect":

> As long as a call to a single telephone number must be served by a single operator, the termination monopoly is likely to persist. The bottleneck resource is at the level of the telephone number, not at the level of the IP packet – rerouting at the IP level has no more effect than re-routing at the circuit level. The termination monopoly persists.[34]

Sprint acknowledges that indirect IP interconnection, in certain circumstances, can sometimes be an effective tool to moderate the unreasonable conduct of an IP network operator.[35] But the fact is that indirect interconnection is of value *only* if a terminating network like AT&T executes a robust set of direct interconnection arrangements with other IP network operators.

Assume, for example, that Sprint wants to offer its customers a quality of voice service that is superior to a "best efforts" voice offering – perhaps a quality of service ("QoS") that is comparable to what AT&T offers today to its own IP voice retail customers. AT&T acknowledges that most businesses and some consumers will demand a higher quality voice service than is available with best-efforts delivery.[36] Sprint could access perhaps several dozen IP transit networks that it could use to interconnect indirectly with AT&T (which in itself is

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[33] *See* AT&T Comments at 28-29.

[34] *See* Sprint Reply at 13 *quoting* WIK-Consult, *The Future of IP Interconnection: Technical, Economic and Public Policy Aspects*, at 2, 15 and 75 (Jan. 29, 2008), *available at* http://ec.europa.eu/information_society/policy/ecomm/doc/library/ext_studies/future_ip_intercon/ip_intercon_study_final.pdf.

[35] Indeed, last year Sprint specifically asked the FCC to confirm that IP-based voice providers have "the right to interconnect indirectly" with a terminating IP voice provider (because of a fear at the time that the RBOCs would require direct interconnection so as to facilitate their exercise of their monopoly power). *See* Sprint Reply Comments at 20 (May 23, 2011).

[36] *See* AT&T Comments at 22 ("Of course, enterprise business customers and some consumers likely will continue to value the greater security and reliability of managed VoIP services.").

senseless since the two firms already have a presence at many of the same IXPs). However, this "right" of indirect interconnection is meaningless unless AT&T has a direct interconnection agreement with at least one IP network operator that provides the level of QoS that Sprint wants to provide to its own voice customers. In other words, if AT&T refuses to offer its competitors IP voice interconnection that supports a guaranteed QoS (in the hope of convincing customers of its competitors to switch to AT&T's network that offers QoS options), the number of ways that Sprint can interconnect indirectly with AT&T is irrelevant.

The terminating monopoly power that ILECs continue to possess gives the RBOCs the ability to exercise their monopoly power. But given their extraordinary market power over voice communications due to their sheer size, the RBOCs also have the strong incentive to exercise this monopoly power to the detriment of their voice provider competitors.

AT&T and Verizon are far larger than all other firms in the industry. Based on publicly reported figures, AT&T provides voice services to over 115 million retail customers with its fixed TDM and mobile networks; it also has over 16 million broadband customers, and presumably a sizable portion of these customers subscribe to AT&T's VoIP services. Similarly, Verizon provides voice services to over 111 million retail customers with its fixed TDM and mobile networks; it also has over 8 million broadband customers, and presumably a sizable portion of these customers subscribe to Verizon VoIP services.

Verizon states that no regulation of IP voice traffic is necessary because with IP networks there are "no incumbents. Everyone is a new entrant."[37] From this, AT&T claims that its IP affiliates "associated with legacy ILECs will hardly be 'dominant' in any relevant market."[38]

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37 Verizon Comments at 10.

38 AT&T Comments at 4.

Sprint agrees with Verizon that every IP network operator is a "new entrant," at least relative to the provision of VoIP services. But AT&T is simply wrong to assert that as a result, the RBOCs are not dominant in the voice communications marketplace.

IP networks are designed to replace obsolete TDM networks. IP voice interconnection will involve traffic destined to both the terminating network's IP and TDM customers. After all, if customers of AT&T's IP affiliates can make calls to, and receive calls from, customers of AT&T's ILEC TDM affiliates, then interconnecting IP networks such as Sprint should also have the right to interconnect *via* IP whether a particular call is destined to an AT&T IP customer or an AT&T TDM customer. Consequently, the relevant product market for IP voice interconnection is all users of voice services, whether a particular user is served by a particular affiliate or served by IP or TDM technology.[39]

With their market dominance over the voice communications market, the RBOCs have every incentive to propose commercially unreasonable terms for IP voice interconnection with their much smaller competitors. After all, the only consequence to the RBOC of proposing unreasonable terms for IP interconnection is to continue to require their rivals to connect to their antiquated TDM network. Such an arrangement imposes significant costs on their smaller rivals while enabling the RBOCs to continue to reap monopoly profits. Given the dynamics of the current situation, the RBOCs are in a "win/win" situation. The following is the Hobson's choice that the RBOCs will offer to their smaller rivals:

1. Accept in full whatever terms for IP voice interconnection that an RBOC demands – regardless of how commercially unreasonable those terms may be; or

[39] In addition, since efficiency dictates that IP voice traffic be exchanged at most at a handful of "IP hubs" located throughout the nation, and given that historic regulatory classifications such as "local" and "long distance" are "anachronistic" in an all IP world (*see* Verizon Comments at 11), the geographic market for IP voice services necessarily is national in scope.

2. Continue using the RBOC's TDM networks with the significant cost penalties associated with this option.

Sprint believes it is significant that parties from every industry segment – including IP network operators;[40] CLECs;[41] rural ILECs;[42] wireless licensees;[43] State regulators;[44] and large business purchasers of IP-based services[45] – have expressed concern over the vastly superior bargaining power that the RBOCs possess as a result of their overwhelming market power. For example, the Rural Associations state that RBOCs often propose terms on a "take-it-or-leave-it" basis, noting the RBOC attitude of "you need us much more than we need you."[46] Even Windstream, the nation's fifth largest ILEC, expresses concern over the "massive 'inequality of

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[40] *See, e.g.,* Bandwidth.com Comments at iii (FCC must a adopt a "regulatory 'backstop' structure" because it "cannot simply allow the biggest players to carve up the marketplace and control the pace of change as they see fit."); Google Comments at 5-6 (noting the need for "a backstop mechanism"); XO Comments at 10 ("[M]arket forces alone are not sufficient to spur ubiquitous IP interconnection," and there is a "current market failure in which competitive carriers seek to negotiate and obtain IP interconnection arrangements but are simply refused by terminating LECs."); YMax Comments at 10 ("ILECs have little incentive to negotiate fairly and have superior bargaining leverage.").

[41] *See, e.g.,* Cbeyond *et al.* Comments at 27 ("Market forces alone will not result in negotiated IP-to-IP interconnection agreements because incumbent LECs have no rational incentive to interconnect with competitors."); HyperCube Comments at 11 (FCC should "continue to provide a forum for dispute resolution."); U.S. TelePacific Comments at 10 ("In light of the unequal bargaining power of large ILECs, a regulatory backstop to commercial negotiations is needed.").

[42] *See, e.g.,* Rural Associations (NECA *et al.*) Comments at 41-42 (FCC "needs to monitor and adjust bargaining power disparities on the basis of actual size and financial differences.").

[43] *See, e.g.,* Leap/Cricket Comments at 12 (A "targeted set of default rules is needed to ensure that carriers with greater negotiating power do not impose unjust and unreasonable requirements on or discriminate against carriers with lesser negotiation power."); T-Mobile Comments at 7 ("Speedy dispute resolution techniques also are essential for carriers' interconnection negotiations with ILECs.").

[44] *See, e.g.,* Wisconsin PSC Comments at 9 ("[T]here has to be some backstop to good faith interconnection arrangements. As the market transitions to IP networks, we cannot afford the possibility that some providers may act on their 'incentives to refuse reasonable negotiations.' FNPRM at ¶ 1337. In other words, there has to be somewhere to turn if negotiations break down.").

[45] *See, e.g.,* Ad Hoc Telecommunications Users Committee Comments at 10 (We agree with the FCC that the "ILEC has 'no economic incentive . . . to provide potential competitors with opportunities to interconnect with and make use of the incumbent LEC's network' and that the 'inequality of bargaining power between incumbents and new entrants militates in favor of rules that have the effect of equalizing bargaining power.'").

[46] Rural Associations (NECA *et al.*) Comments at 41.

bargaining power'" the RBOCs possess, power that renders "unworkable a regime based entirely on commercial agreements":

> In Windstream's experience as a competitive carrier, commercial negotiations with the largest carriers for deregulated services can be contentious and difficult. Larger carriers often are unwilling to come to reasonable terms with smaller carriers that lack comparable "purchasing power," and they are even less interested in offering reasonable terms to a carrier that they perceive as a stronger competitor for larger business customers. Without a regulatory backstop to ensure that all carriers have a right to interconnection at just and reasonable rates, terms, and conditions, competitive providers will face unreasonably high costs for interconnection and be increasingly unable to compete against the largest carriers.[47]

Indeed, even CenturyLink, the third largest ILEC, through its industry association acknowledges that a "regulatory backstop is needed to address interconnection disputes should they arise."[48]

One final point warrants brief mention. AT&T touts repeatedly its IP Telepresence videoconferencing agreements with several foreign carriers.[49] AT&T states these agreements for managed, QoS-sensitive videoconferencing services prove that it "will negotiate commercial arrangements for the exchange of managed VoIP traffic . . . without the need for any regulatory intervention."[50]

There is an important difference between an international Telepresence service agreement and a domestic voice service agreement, however. Telepresence is an entirely new service made possible by IP technologies and IP networks. With voice services, in contrast, incumbent

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47 Windstream Comments at 15.

48 *See* ITTA Comments at 9 (italics added). CenturyLink is a member of ITTA. *See id.* at 1 n.1.

49 *See* AT&T Comments at 10, 17 and 19-20. Sprint offers similar services and with nine other global service providers, helped found the Global Meeting Alliance, an open ecosystem of telecom providers that have aligned to interconnect their respective business video communities. *See* Global Meeting Alliance Press Release, *Telecom Industry Leaders Join Forces to Form Global Meeting Alliance* (Jan. 31, 2012), *available at* http://www.globalmeetingalliance.com/news-events/. *See generally* http://www.globalmeetingalliance.com/.

50 AT&T Comments at 22.

providers have a strong incentive to delay IP voice interconnection with their domestic competitors so they can continue to impose enormous TDM costs on their rivals while continuing to generate monopoly profits on their associated intercarrier compensation charges.[51] AT&T's execution of Telepresence agreements with a handful of foreign carriers does not "prove" it will execute reasonable IP voice interconnection agreements with its domestic rivals.

The foregoing makes apparent that a good faith negotiation requirement is absolutely essential for those voice providers that possess substantial market power. Such a good faith negotiation requirement also has meaning only if the FCC provides a regulatory backstop so competitive IP voice providers have a forum to file complaints if they believe a voice provider with market power is engaged in bad faith negotiations.

[51] ILEC resistance to IP voice interconnection is based on an old ILEC adage, "not a dime before its time." In the immediate context, so long as an ILEC can extract more money from its rivals using the old TDM interconnection technology it is not about to use the more cost-effective IP interconnection technology.

C. THE RBOC "NO REGULATION/ NO GOOD FAITH NEGOTIATION REQUIREMENT" POSITION IS INCOMPATIBLE WITH MANDATES THAT CONGRESS HAS EXPLICITLY IMPOSED ON THE COMMISSION

Congress, in § 706 of the 1996 Act, instructed that the FCC "*shall* encourage the deployment on a reasonable and timely basis of advanced telecommunications capabilities to all Americans."[52] Congress further mandated that if the FCC determines such an advanced capability is not being deployed "to all Americans in a reasonable and timely basis," it "*shall take immediate action to accelerate deployment* of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."[53] Congress recently made clear this mandate specifically encompasses IP-based voice services.[54]

Based on the current evidence in the record – the utter failure of any ILEC to demonstrate it is executing with its rivals IP voice interconnection agreements on a timely basis – the Commission could easily determine that interconnected IP voice services are not being made available "to all Americans in a reasonable and timely basis." With such a finding, § 706(b) then directs the FCC to take "immediate" action to "accelerate deployment" of IP voice interconnection by "promoting competition in the telecommunications market."

The Commission could not possibly comply with this statutory mandate if it were to adopt the RBOC "no regulation/no good faith negotiation requirement" position. The largest providers of voice services would be given unfettered authority to determine whether they will even interconnect with other IP networks for the exchange of voice services. If the RBOCs decide to interconnect with their rivals' IP networks, they would also be able to dictate the terms

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52 47 U.S.C. § 1302(a)(emphasis added).

53 *Id.* at § 1302(b)(emphasis added).

54 *See* Twenty-First Century Communications and Accessibility Act of 2010, PUB. L. NO. 111-260, 111th Cong, 2d Sess, § 101 (Oct. 8, 2010). *See also* 47 U.S.C. § 153(1).

under which they will permit such interconnection. Thus, if the FCC were to determine that IP-based voice services are not being made available to "all Americans on a reasonable and timely basis" because the nation's largest voice providers refuse to provide to their rivals IP voice interconnection on reasonable terms – under the RBOC proposal there would be nothing the FCC could do about this situation.

The FCC should not permit the RBOCs to determine the pace at which IP voice interconnection will be deployed, to whom they will interconnect *via* IP, and leave the door open for discriminatory practices. This would permit the RBOCs to set the pace at which Americans will enjoy the benefits of IP voice services provided over all IP networks. Federal courts have held, however, that federal agencies may "not subdelegate to outside entities – private or sovereign" – their decision-making authority "absent affirmative evidence of authority to do so."[55] There is, of course, no evidence that Congress intended the FCC to subdelegate its responsibilities under § 706 to anyone – much less to subdelegate this responsibility to the largest voice providers that possess unprecedented market power and have the greatest incentive to delay IP voice interconnection. This is yet another reason why the Commission must decisively reject the RBOC "no regulation/no good faith negotiation requirement" position.

D. THE FCC SHOULD CONFIRM THAT ITS EXISTING COMPLAINT PROCEDURES APPLY TO IP NETWORKS

Dispute resolution by a neutral third party is essential to any good faith negotiation requirement. Without a meaningful dispute resolution process, a good faith negotiation requirement is worthless as a practical matter. It is therefore appropriate that the Commission

[55] *USTA* v. *FCC*, 359 F.3d 554, 566 (D.C. Cir. 2004), *cert. denied*, 543 U.S. 925 (2004). *See also id.* at 565 ("[S]ubdelegations to outside parties are assumed to be improper absent an affirmative showing of congressional authorization.").

has asked whether it should use its existing complaint procedures or instead adopt different procedures.[56]

Sprint does not believe it would be productive to "reinvent the wheel." The entire industry is familiar with the current complaint procedures, and the considerable precedent that has been established under those rules could accelerate Commission decision-making in "bad faith negotiation" complaints. The current rules give complainants a wide variety of procedures to invoke – including pre-complaint mediation, informal complaints, formal complaints and Accelerated Docket procedures.[57] Given a complainant's incentive to choose a procedure that will result in a decision most expeditiously, the current complaint process is ideally suited to address complaints that an IP network operator has not negotiated in good faith.

But there is a practical problem that the Commission should consider. The FCC adopted its complaint rules pursuant to § 208 of the Act, which applies only to common carriers providing telecommunications services. Some parties take the position that their IP-based voice services are not telecommunications services. In response to a complaint alleging that they have not engaged in good faith negotiation, these parties will no doubt contend that these complaint rules cannot apply to them because they are not telecommunications carriers. Resolving the "telecom vs. information services" regulatory classification issue in a complaint proceeding, which typically involves two parties only, is not the proper forum to address this important issue,

Sprint submits that the most expedient way to handle this situation is for the Commission to invoke its ancillary authority under Title I of the Act by declaring that its current complaint procedures apply whether a given IP network operator claims to be a provider of

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56 *See USF/ICC Transformation FNPRM* at ¶ 1355, ¶ 1357 and ¶ 1395.

57 *See* T-Mobile Comments at 8.

telecommunications services or information services. As Sprint demonstrates below, the Commission possesses ample ancillary authority to take this simple step.

E. AT&T'S CONVERGENCE ARGUMENT SHOULD BE REJECTED

AT&T faults the *FNPRM* for "overlook[ing]" what it says is the "single greatest communications trend of the modern era, the convergence of all electronic communications over the IP platform."[58] According to AT&T, the "modern IP ecosystem obliterates" the ability of regulators to treat IP packets differently because "bits are bits and can ride on top of any broadband platform."[59] As a result, AT&T says, the FCC "cannot sensibly target 'the exchange of voice traffic' for special regulatory treatment as though 'voice' were uniquely in need of special interconnection arrangements, because it is not."[60]

AT&T's argument creates a false dichotomy:

1. Either continue to leave the "Internet," including IP voice interconnection, unregulated; or
2. Be prepared to regulate all aspects of the "Internet" because once "bits are bits," the FCC cannot practically exercise oversight over the interconnection of ordinary IP voice traffic without affecting other applications riding over the same IP network.

Sprint rejects this false choice. The "Internet" and the convergence of applications over IP networks have little relevance to the subject now before the Commission: the appropriate regulatory regime that should be applied to the exchange of ordinary voice traffic between two IP networks.

It is important to understand that IP networks carry two different types of traffic: (a) "best efforts" traffic, and (b) "managed" services traffic, which as AT&T notes, constitutes traffic

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58 AT&T Comments at 1.

59 *Id.* at 23.

60 *Id.* at 22.

where "the IP networks handling the service's packets have agreed to give those packets some form of special handling (such as ToS markings or MPLS routing) in order to ensure some specified degree of QoS."[61]

As an IP network owner, Sprint is interested in providing its customers with a quality of voice service that is at least as good as (if not better than) the quality they received with TDM-based voice services. Consequently, Sprint wants to provide a "managed" voice service that would provide a better quality of voice service than would be available by using a best-efforts delivery method. Indeed, AT&T readily acknowledges that enterprise business customers and some consumers will demand access to a managed voice service (vs. a best-efforts-based voice service).[62]

There are several ways for two IP networks to exchange managed service packets as AT&T recognizes. One method is to "commingle both 'managed' packets and best-effort Internet packets within their traffic exchanges as part of a single peering and transit arrangement, distinguishing the various packet categories only by mutually recognized ToS markings on packet headers."[63] But as AT&T also recognizes, this method is "uncommon for traffic exchanged between unaffiliated IP networks through ordinary peering and transit arrangements," largely because the complexities involved in this commingling arrangement and because of the incentive of IP networks to present all of their packets as "high-priority."[64]

The more common approach, as AT&T states, is to "exchange certain categories of 'managed' traffic over *physically* separate interconnection facilities":

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61 AT&T Comments at 24-25.

62 *See id.* at 22.

63 *Id.* at 25.

64 *Id.* at 18-19.

> QoS-aware traffic exchanges have begun appearing as terms in *bilateral* arrangements between IP networks, similar to (but often distinct from) the Internet peering and transit arrangements that govern best-effort Internet interconnection today.[65]

AT&T says it uses this "physically separate interconnection facilities" approach in exchanging Telepresence traffic with its foreign partners, and to implement this arrangement, AT&T negotiated "separate bilateral 'Telepresence exchange' agreements" with these partners.[66]

As noted, Sprint wants to negotiate managed services agreements with ILECs, including the RBOCs, for the exchange of ordinary voice traffic. Sprint's IP network and each of the RBOCs' IP networks have a presence at seven IP hubs across the country.[67] The approach that would be the easiest (and quickest) to implement for the exchange of managed voice traffic would be to use the "physically separate interconnection facilities" alternative that AT&T uses in exchanging certain other managed services traffic with other IP networks. As discussed above in connection with CenturyLink (*see* Subpart I.A *supra*), two IP networks could begin exchanging voice traffic with a cross connect link (*e.g.*, a 10 GigE) that might be as short as 50 or 80 feet.

Thus, when IP voice interconnection is understood correctly, the issue is whether the RBOCs (and other ILECs) will permit Sprint to install this short Ethernet cross connect link so the parties can begin exchanging managed voice service packets with each other.

As becomes immediately apparent, the "Internet" has nothing to do with IP voice interconnection or the exchange of managed voice traffic. Nor is there any risk that FCC oversight of this interconnection Ethernet circuit will somehow spill over into the peering and

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65 AT&T Comments at 19 and 25 (italics in original). *See also id.* at 21 (The managed traffic that IP networks exchange today is generally "exchange[d] separately" from best-efforts traffic).

66 *See id.* at 19.

67 *See* Sprint Comments at 18.

transit arrangements that IP networks use for the exchange of different IP traffic over different interconnection facilities.

AT&T's sweeping statements concerning IP voice interconnection and convergence are simply not accurate:

- AT&T says FCC oversight of IP voice interconnection would "distort the natural development of the Internet" and would "impede prospects for integrating such packets with Internet traffic more generally."[68]

  As discussed above, FCC oversight of voice interconnection would have nothing to do with the Internet and thus could not possibly "distort the natural development of the Internet." Nor would such oversight "impede prospects" for further traffic integration. Once two IP networks begin exchanging managed voice packets over physically separate facilities, the network operators may decide at some point in the future that there is a more efficient approach to exchange this voice traffic (*e.g.*, commingle managed voice traffic with other managed packets or even with best-efforts traffic). The IP network operators will implement other arrangements when they both agree to such different arrangements. FCC oversight has nothing to do with possible future modifications of voice interconnection and the exchange of IP voice traffic.

- AT&T says that FCC oversight of IP voice interconnection would be "affirmatively harmful because it would threaten the continued growth of IP networks and services."[69]

  As explained above, permitting the exchange of voice IP at current quality of service levels would have no impact on the growth of IP networks and services.

- AT&T says that one of the key benefits of IP technology would be "defeat[ed]" by "artificially segregating [voice] traffic from other IP traffic," and this would "inflict wasteful costs on the Internet ecosystem in the form of diminished innovation, redundant infrastructure, and decreased economies of scale and scope."[70]

  As AT&T acknowledges, using "physically separate interconnection facilities" is the most common arrangement for exchanging managed services traffic today. Importantly, the use of separate facilities for the interconnection link does not impact the ability of either IP network from efficiently handling the traffic within its own IP network. For example,

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68 AT&T Comments at 2.

69 AT&T Comments at 9.

70 AT&T Comments at 23.

with Sprint's managed services voice traffic, AT&T could within its own IP network:

- ✓ Commingle Sprint's managed voice traffic with the managed voice traffic involving other IP networks;
- ✓ Commingle managed voice traffic with non-voice managed traffic; or
- ✓ Commingle all managed services traffic with all best-efforts traffic.

The only limitation on AT&T's commingling options would be to ensure that whatever option it utilizes guarantees the QoS that AT&T agreed voluntarily to provide in its interconnection agreements.

In addition, the exchange of voice traffic *via* some or all of the facilities used for Internet traffic does not impact the Internet ecosystem because the voice traffic would be segregated from the Internet traffic. Instead, voice traffic exchanged *via* IP interconnection would utilize the efficiencies that have been built into the Internet exchange infrastructure (*e.g.*, use of existing IXPs as voice POIs, use of existing collocation space at IXPs) rather than the inefficient TDM interconnection infrastructure in use today.

Finally, AT&T says that proponents of some FCC oversight over IP voice interconnection base their position on a flawed assumption: "'voice' is different from other IP-enabled services."[71] From a technical perspective, a bit is a bit. Thus, best-effort voice traffic is treated just like other best-effort non-voice traffic (and all of this best-effort traffic is typically commingled with each other), while managed voice traffic is generally treated similarly to managed non-voice traffic

But the fact is that with ILECs, voice <u>is</u> different from other IP traffic. This is because of the enormous revenues ILECs continue to receive from having all voice traffic connect to their TDM networks and the disproportionate and significant costs that ILECs can impose on their smaller rivals as a result – and these factors have an enormous impact on an ILEC's willingness to establish IP voice interconnection on reasonable terms.

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[71] AT&T Comments at 16.

F. THE FCC SHOULD CONFIRM THAT IP NETWORKS SEEKING TO EXCHANGE VOICE TRAFFIC WITH AN ILEC (OR ITS AFFILIATE) IP NETWORK ARE TO BE TREATED AS A "CO-CARRIER," AND NOT AS A CUSTOMER

Verizon's comments contain an extended discussion of its "SIP Gateway Service," which it says "allows VoIP providers to connect with Verizon in IP format and send Verizon all of their voice traffic over these IP connections."[72] Verizon states this service is "popular" because it is a "standardized offering available throughout the country" and offers "VoIP providers complete access to all domestic end points."[73] The clear implication of this discussion is that Verizon deems its SIP Gateway Service to constitute a reasonable offer of IP voice interconnection that its rivals can use.

Verizon's SIP Gateway Service, however, is not a reasonable offer of a carrier-to-carrier IP voice interconnection arrangement. Rather, it is an offer to enter into a vendor-customer relationship where Verizon becomes the vendor providing certain functions (*e.g.,* telephone numbers, long haul carriage) to a voice service provider customer.[74] But these are not interconnection arrangements where two competing carriers each furnish their own needs on their respective side of the interconnection for the mutual exchange of traffic.

Notably, pricing of Verizon's SIP Gateway Service is based on the old telephony construct, complete with usage charges centered on LATAs and other regulatory distinctions and classifications:

> The domestic usage rate structure is based on the terminating Local Access Transport Area (LATA) and the Operating Company Number (OCN) or

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72 Verizon Comments at 13.

73 *Id.* at 13-14.

74 Sprint and other industry members provide similar functionality to voice service providers on a wholesale basis, furnishing those functions the voice service providers do not furnish for themselves.

> classification of the terminating Local Exchange Carrier (LEC) based on the dialed NPA-NXX.[75]

Presumably a subscription to this service would include traffic termination to Verizon's ILEC affiliates but the traffic would be subject to the outdated TDM intercarrier compensation. What this offer demonstrates, however, is that Verizon is fully capable of receiving and sending voice traffic in IP format – and, by pointing to this service in comments regarding IP Interconnection, Verizon is merely demonstrating its preference for a continuation of the outdated access regime.

Verizon's discussion of its SIP Gateway Service is reminiscent of the tactics the RBOCs used long ago during the early days of cellular service. Non-affiliated cellular carriers asked the RBOCs to interconnect with them in the same way that other ILECs interconnected with the RBOCs. The RBOCs refused, claiming that non-affiliated wireless carriers were required to interconnect with them the same way that their PBX retail customers interconnected with their network – and as a result, were forced to use (and pay for) RBOC switching services and telephone numbers that the nonaffiliated wireless carriers did not need or want. The FCC rejected the RBOC position and directed the RBOCs to negotiate in good faith for the type of interconnection that non-affiliated wireless carriers had requested, stating:

> [W]e remind the landline companies of our longstanding policy that a cellular system operator is a common carrier, not a customer or end user. In one of our first pronouncements regarding our interconnection policies, we held that, as a co-carrier, a cellular company is entitled to interconnection arrangements that minimize duplication of switching facilities and, in turn, the costs to consumers.[76]

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[75] Verizon says it even bills at a "six second minimum" increment. *See* Verizon Webpage, SIP Gateway Service, *available at* http://www22.verizon.com/wholesale/solutions/solution/sip%2Bgateway%2Bservice.html#Pricing (visited March 11, 2012).

[76] *Cellular Interconnection Reconsideration Order*, 4 FCC Rcd 2369, 2372 ¶ 28 (1989).

To be clear, Sprint has no problem *per se* with any network operator offering "standardized" IP service packages. But the Commission should make clear that even with such standardized offerings, an IP network operator must still negotiate in good faith an interconnection arrangement for the exchange of voice traffic that is desired by the requesting IP network operator on a carrier-to-carrier basis.

G. THE FCC HAS AMPLE AUTHORITY TO ADOPT A GOOD FAITH NEGOTIATION REQUIREMENT – INCLUDING FOR IP NETWORKS

AT&T and Verizon contend that none of the current Part 51 interconnection rules apply to them because their IP-based services are information services rather than telecommunications services.[77] These RBOCs further contend that the FCC has no Title I "ancillary" authority over IP-based voices services. As a result, they claim that the FCC cannot regulate their provision of such services under any circumstance and they are therefore free to wield their extraordinary market power in any way they see fit.[78] In taking these positions, these RBOCs do not, as the FCC specifically asked, respond to the detailed legal analysis that Sprint submitted last year.[79] These RBOC arguments concerning the scope of the Commission's Title I ancillary authority lack all merit.

Courts have established a two-part test for determining whether the FCC may invoke its ancillary authority concerning information services such as IP voice traffic: "(1) the Commission's general jurisdictional grant under Title I [of the Communications Act] covers the regulated subject, and (2) the regulations are reasonably ancillary to the Commission's effective

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77 *See* AT&T Comments at 35-43; Verizon Comments at 25-35.

78 *See* AT&T Comments at 44-45; Verizon Comments at 39.

79 *See USF/ICC Transformation FNPRM* at ¶ 1397 ("We seek comment on Sprint's analysis"), *citing* Sprint Reply Comments, Appendix D (May 23, 2011). *See also id.* at ¶ 1357 and ¶ 1395.

performance of its statutorily mandated responsibilities."[80] Both requirements are satisfied with regard to the regulatory regime being proposed for IP-based voice services – specifically, a good faith negotiation requirement coupled with a regulatory backstop to resolve complaints alleging that one party has not negotiated in good faith.

A. The FCC Possesses Subject Matter Jurisdiction Over IP-Based Voice Services. Section 2(a) of the Act gives the FCC exclusive regulatory authority over "all interstate and foreign communications by wire or radio."[81] IP-based voice communications certainly qualify as "interstate and foreign communications by wire or radio" within the scope of § 2(a) of the Act. Because Title I covers the subject of IP voice traffic, the FCC unquestionably possesses subject matter jurisdiction to adopt rules governing the exchange of IP voice traffic between two IP networks (including any affiliates that also provide voice communications to the public).[82]

B. The Proposed Regulatory Regime for IP-Based Voice Traffic Also Satisfies the "Reasonably Ancillary" Requirement. Section 4(i) of the Act empowers the FCC to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions." Courts have held that in order to exercise its authority under this statute, any action the FCC takes must be "reasonably ancillary to [its] effective performance of its statutorily mandated responsibilities."[83]

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80 *Comcast* v. *FCC*, 600 F.3d 642, 646 (D.C. Cir. 2010).

81 47 U.S.C. § 152(a).

82 *See, e.g., Open Internet Order*, 25 FCC Rcd 17905, 17967 ¶ 115 (2010)("Broadband Internet access services are clearly within the Commission' subject matter jurisdiction" under § 2(a) of the Act); *Comcast*, 600 F.3d at 646-47 ("Comcast concedes that the Commission's action here satisfied the first requirement because the company's Internet service qualifies as 'interstate and foreign communications by wire' within the meaning of Title I of the Communications Act.").

83 *Comcast*, 600 F.3d at 646, *quoting American Library Ass'n* v. *FCC*, 406 F.3d 689, 391-2-92 (D.C. Cir. 2005).

Specifically, new rules must be "incident to, and contingent upon, *specifically delegated powers under the Act*."[84]

AT&T and Verizon each assert that the minimal and targeted regulatory regime being proposed for the exchange of IP-based voice services would "not be reasonably ancillary to the exercise of any of the Commission's statutory duties."[85] These RBOCs are mistaken, as Sprint demonstrates below.

1. *A good faith negotiation requirement*. Congress established the FCC in the Communications Act of 1934 to ensure the availability of "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."[86] Congress recognized the importance of interconnection to achieve this objective by empowering the FCC, in the first substantive provision in the 1934 Act, to order "physical connections with other carriers."[87] When Congress amended the Act in 1996 to facilitate competition in local voice and other markets, it again gave the FCC explicit authority to order interconnection between competing service providers, including with respect to the exchange of intrastate voice services, and to adopt rules governing such interconnection.[88]

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84 *Comcast*, 600 F.3d at 653 (italics in original), *quoting NARUC* v. *FCC*, 533 F.2d 601, 612 (D.C. Cir. 1976).

85 AT&T Comments at 44. Sprint does not understand Verizon's argument that the Act does not require LECs to accept voice traffic in a particular format such as IP. *See* Verizon Comments at 25 and 39. To be sure, the Act does not require network operators to use the IP format, but neither does it require them to use the TDM format. The important point is that both ILECs (or their affiliates) and competitive voice providers have deployed and are using IP networks in the provision voice services. Thus, Verizon is not being asked to provide voice in a particular format, because it is already providing IP-based voice services.

86 47 U.S.C. § 151.

87 *See id.* at § 201(a).

88 *See id.* at § 251.

Interconnection of competing networks is just as important when voice services are provided using the IP format. As the National Broadband Plan recognized, interconnection is the essential component for competition to exist: "For consumers to have a choice of service providers, competitive carriers need to be able to interconnect their networks with incumbent providers":

> Basic interconnection regulations, which ensure that a consumer is able to make and receive calls to virtually anyone else with a telephone, regardless of service provider, network configuration or location, have been a central tenet of telecommunications regulatory policy for over a century. For competition to thrive, the principle of interconnection – in which customers of one service provider can communicate with customers of another – needs to be maintained.[89]

The Supreme Court has likewise recognized the importance of interconnection to competition when it noted that interconnection "ensures that customers on a competitor's network can call customers on the incumbent's network, and vice versa."[90]

It is thus apparent that the imposition of a requirement that IP network operators with market power negotiate in good faith with their smaller rivals the terms of the interconnection for the exchange of IP-based voice services is reasonably ancillary to its express delegation of authority over that portion of the voice communications market that falls within Title II of the Act. Historically, all providers of voice services offered to the public were subject to regulation under Title II, which includes an explicit duty to interconnect. If the FCC ultimately determines that IP-based voice services should rather be classified as information services, providers of IP-based voice services would not be subject to any Title II regulation. As a practical matter, such a ruling would have the effect of subdividing the public voice communications market into two submarkets: voice services provided by TDM networks that would continue to be regulated

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89 National Broadband Plan at 49, Recommendation 4.10.

90 *Talk America* v. *Michigan Bell*, 131 S. Ct. 2254, 2258 (2011).

under Title II, and voice services provided by IP networks that would not be subject to Title II regulation.

The hallmark of the public voice communications marketplace has always been the ability of consumers to place calls to anyone else, regardless of their service provider – a capability made possible only through interconnection. Preserving this fundamental capability throughout the entire public voice communications marketplace obviously is critical to the very reason the FCC was established: to ensure the availability of "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges."[91] Maintaining this critical capability as the entire industry transitions to IP technology can hardly be compared to the regulation of a service provider's "network management practices" that the *Comcast* court found the FCC had not adequately justified under its ancillary authority.

AT&T asserts, however, that the FCC's exercise of ancillary authority over IP-based voice capabilities would be "logically incoherent" because "Title II PSTN services" eventually will be phased out.[92] According to AT&T, once TDM networks are decommissioned, there will be "no relevant duties for them to be ancillary *to*:

> The Commission cannot logically invoke "ancillary" authority, ostensibly grounded in the need to protect its Title II authority, to expedite the transition to a class of services over which it *lacks* Title II authority.[93]

The simple response is that it will be years before all TDM networks are decommissioned,[94] and it is possible that at that time, a good faith negotiation requirement for

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91 47 U.S.C. § 151.

92 *See* AT&T Comments at 44.

93 *Id.* at 45 (italics in original).

94 Indeed, AT&T proposes a sunset date six years from now. *See* AT&T Comments at 49.

IP-based services will no longer be necessary. But more fundamentally, the sunset of TDM will not change the FCC's authority. Congress in § 706(b) has instructed that if the FCC determines that IP-based voice services are not be deployed on a "timely basis . . . to all Americans, the Commission "shall take immediate action to accelerate deployment of such capability . . . by promoting competition in the telecommunications market."[95] This statutory mandate gives the FCC the authority to take whatever steps are needed (regulatory or deregulatory[96]) to ensure that IP-based voice services are being made available on a "timely basis . . . to all Americans."

2. *Resolving complaints alleging bad faith negotiation*. If the FCC possesses ancillary authority to adopt a good faith regulatory requirement, it necessarily follows it possesses the same authority to resolve complaints alleging that one party has negotiated in bad faith. After all, a good faith negotiation duty has no meaning or value if there is no neutral forum to resolve disputes. It is noteworthy that the Supreme Court in a comparable setting, after affirming the FCC's exercise of its ancillary authority to adopt new rules for the nascent cable TV industry, then affirmed summarily the FCC's exercise of its ancillary authority to establish procedures for "requests for special relief and of 'complaints or disputes'" involving those new rules.[97]

As discussed above, the FCC need not, and should not, "reinvent the wheel." Sprint submits that the most expedient approach is for the Commission to declare that its existing set of complaint rules apply to "bad faith negotiation" complaints whether the IP network defendant (or any of its affiliates providing voice service) claims it is providing a telecommunications service or an information service.

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95 47 U.S.C. § 1302(b).

96 "The general and generous phrasing of § 706 means the FCC possesses significant, albeit not unfettered, authority and discretion to settle on the best regulatory or deregulatory approach to broadband." *Ad Hoc Users Committee* v. *FCC*, 572 F.3d 903, 906-07 (D.C. Cir. 2009).

97 *United States* v. *Southwestern Cable*, 392 U.S. 157, 178-81 (1968).

III. THE COMMISSION SHOULD REJECT MANY OF AT&T'S PROPOSED REVISIONS TO THE EXISTING TDM INTERCONNECTION RULES

The Commission has asked for comment on TDM interconnection issues that it should address to ensure that bill-and-keep is implemented in "an efficient and equitable manner," and specifically, how its TDM interconnection rules could "promote IP-to-IP interconnection and facilitate the transition to all-IP networks."[98]

The comments regarding TDM interconnection generally did not reveal any matters which have not been raised in the very lengthy record of this proceeding. Most ILECs generally would prefer to continue the vestiges of the access regime. Competitors generally continue to seek the competitive balance promised in the interconnection provisions of 1996 Act. For example, Sprint presented several proposals designed to eliminate incentives for incumbents to insist upon maintaining inefficient TDM interconnections.[99] Sprint proposes, in Appendix A, a narrow set of rules to govern TDM interconnection while such interconnections remain. Sprint believes that these rules will help ensure that bill-and-keep is implemented in an efficient and equitable manner, and hasten the transition to all-IP networks.

In Appendix B, Sprint provides an analysis of the detailed set of rules proposed by AT&T.[100] As Appendix B demonstrates, there are many problems with AT&T's rule proposals. Among other things,

- AT&T's proposals are unduly complicated and would invite future controversy;
- AT&T's proposals do not address certain matters that would facilitate IP voice interconnection; and

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98 *See USF/ICC Transformation FNPRM* at ¶ 1315 and ¶ 1319.

99 *See* Sprint Comments at 25-51.

100 *See* AT&T Comments, Appendix A, "Bill-and-Keep Framework for Terminating PSTN Traffic."

- AT&T asks the Commission to adopt rules that are incompatible with both the requirements imposed in § 251(c)(2) of the Act and Supreme Court and other federal court decisions applying that statute.

Sprint asks the Commission to adopt the rules proposed in its Appendix A and to reject AT&T's proposals for the reasons set forth in Appendix B.

Respectfully submitted,

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Appendix A

Sprint's Bill-and-Keep Framework for TDM Interconnection

1. Scope of Rules

The rules below are default rules only, to be used if two carriers cannot agree to different arrangements. Carriers are encouraged to use different arrangements if they mutually determine that the different arrangements would better serve their needs.

1.1 Definitions

(a) *Interconnection* means the physical linking of carrier networks in a manner that facilitates the exchange of traffic.

(i) *Direct interconnection* is an arrangement that links a Sending Carrier's network to a Terminating Carrier's Network Edge using an Interconnection Facility, which may be self-provisioned by the Sending Carrier or purchased from the Terminating Carrier.

(ii) *Indirect interconnection* is an arrangement where a Sending Carrier's network is linked to an Intermediate Carrier's network so the Sending Carrier's network can be linked the Terminating Carrier's network for the exchange of traffic. In this context, the Intermediate Carrier interconnects directly with both the Sending Carrier and the Terminating Carrier.

(b) *Interconnection Facility* refers to the link connecting two networks with each other. With direct interconnection, an Interconnection Facility is the link connecting the Sending Carrier's Network Edge to the Terminating Carrier's Network Edge. With indirect interconnection, the Interconnect Facility refers to the link connecting the Sending Carrier's Network to the Intermediate Carrier's Network and the link connecting the Intermediate Carrier's Network to the Terminating Carrier's Network Edge.

(c) *Intermediate Carrier* is a network owner that connects a Sending Carrier's network with a Terminating Carrier's network so the Sending and Terminating Carriers can exchange traffic with each other.

(d) *Network Edge* is a single point within a State at which financial responsibility for the costs of delivering traffic shifts from the Sending Carrier to the Terminating Carrier.

(i) A Terminating Carrier must designate a Network Edge at a competitively neutral location, where interconnecting carriers have competitive alternatives, other than the facilities provided by the Terminating Carrier to transport traffic to the terminating carrier's network.

(ii) The following locations, or equivalent locations, will presumptively be Network Edges:

(1) ***End Office serving the called party,*** when that end office does not subtend a tandem switch owned by the Terminating Carrier or any of its affiliates.

(2) ***Tandem Switch,*** when the Terminating Carrier or one of its affiliates owns the tandem switch.

(3) ***Point of Presence*** ("POP"), when the Terminating Carrier does not have a switch in the State where the traffic is terminated.

(4) ***Mobile Switching Center*** ("MSC"), for CMRS traffic.

(iii) If use of one of the locations listed in paragraph (ii) does not permit competitively neutral location for interconnection as defined in paragraph (i), a Terminating Carrier shall then designate as its Network Edge a location where competitively neutral interconnection is available.

(iv) A Sending Carrier may, at its sole discretion, choose to send some or all of its traffic to an ILEC at a single point in that State. This single point per State shall be deemed the ILEC's Network Edge in that State.

(e) *Sending Carrier* is the carrier serving the calling party or the carrier serving the calling party's carrier.

(f) *Terminating Carrier* is the carrier that delivers the call to the called party served by its network.

(g) *Transit* is a network arrangement provided by an Intermediate Carrier that links a Sending Carrier's network to a Terminating Carrier's network so the Sending and Terminating Carriers can exchange traffic with each other.

2. General Interconnection Duties of All Carriers

(a) Every Terminating Carrier (and all of its affiliates in a State that provide TDM-based voice services) must identify at least one Network Edge in a State.

(i) If Terminating Carrier and its TDM affiliates designate more than one Network Edge, a Sending or Intermediate Carrier shall, at the Sending or Intermediate Carrier's sole discretion, be permitted to select one of the designed Network Edges for delivery of all traffic destined to the Terminating Carrier and its affiliates.

(ii) If a Sending or Intermediate Carrier elects to send its traffic to only one Network Edge, the Sending or Intermediate Carrier must, upon request of the Terminating

Carrier, segregate its traffic by the Terminating Carrier's (and its affiliates) end office destination.

(iii) The obligation for delivery of the traffic from the Network Edge to its destination always remains with the Terminating Carrier.

(b) Terminating carriers that are subject to Section 251(c)(2) of the Act have the following additional duties:

(i) Every ILEC subject to section 251(c)(2) must offer physical interconnection for the transmission and routing of traffic at any technically feasible point within its network.

(ii) Every ILEC subject to section 251(c)(2) must, upon request, provide Interconnection Facilities at TELRIC rates.

> To eliminate further controversy, the FCC should further clarify that any such TELRIC cost study must be based on packet technology because such technology is "the most efficient telecommunications technology currently available." 47 C.F.R. § 51.505(b)(1).

3. Terminating Rate Structure

(a) The Sending Carrier bears the financial obligation to deliver its traffic to the Terminating Carrier's Network Edge. The Terminating Carrier bears the financial obligation to deliver that traffic from the Network Edge to the called party.

(b) If a Terminating LEC insists on indirect interconnection at its Network Edge, the Terminating LEC bears to costs of transit arrangements to reach that Edge, and the Sending Carrier's financial obligation ends by delivering its traffic to the transit provider designated by the Terminating Carrier.

4. Transit Arrangements

(a) ILECs subject to section 251(c)(2) are required to provide transit arrangements at cost-based (TELRIC) rates.

> To eliminate further controversy, the FCC should further clarify that any such TELRIC cost study must be based on packet technology because such technology is "the most efficient telecommunications technology currently available." 47 C.F.R. § 51.505(b)(1).

(b) An ILEC subject to section 251(c)(2) need not prepare a TELRIC cost study if it elects to charge no more than $0.00035 per minute for providing transit.

5. Transition from Tariffs to Interconnection Agreements for Section 251(b)(5) Traffic

(a) Effective July 1, 2013, the rates, terms, and conditions for all terminating charges that are encompassed by section 251(b)(5) and subject to the transition set out in the *Order* should be set through interconnection agreements, not tariffs. After that date, all terminating charges subject to the transition should be removed from access tariffs and should instead be included in section 252 agreements for interconnection and reciprocal compensation.

(b) Prior to the date that tariffing arrangements are prohibited, an ILEC must, at the request of a competitive carrier, negotiate terms and conditions for an agreement that would apply to the interconnection and exchange of all traffic, including access traffic. Such terms and conditions may be different than those contained in an ILEC's tariffs. Such consolidated agreements, or disputes concerning the terms and conditions of such agreements, are subject in full to the provisions set forth in section 252.

6. Sprint's Proposed Amendment of FCC Rule 51.790(b):

Current Rule 51.709(b) would be deleted and replaced with the following:

> Absent agreement by the parties otherwise, the cost of a two-way Interconnection Facility shall be shared equally between the two connecting networks. One-way Interconnection Facilities shall be used only with the agreement of both parties.

7. Sprint's Proposed Amendment of Rural Transport Rule:

New Rule 51.709(c) would be revised as follows:

> For Non-Access Telecommunications Traffic exchanged between a rate-of-return regulated rural telephone company as defined in § 51.5 <u>that is not affiliated with the owner of a tandem switch</u> and a CMRS provider<u>,</u> the rural rate-of-return incumbent local exchange carrier will be responsible for transport to the CMRS provider's interconnection point when it is located within the rural rate-of-return incumbent local exchange carrier's service area. When the CMRS provider's interconnection point is located outside the rural rate-of-return incumbent local exchange carrier's service area, the rural rate-of-return incumbent local exchange carrier's transport and provisioning obligation stops at its meet point and the CMRS provider is responsible for the remaining transport to its interconnection point. This paragraph (c) is a default provision and applicable in the absence of an existing agreement or arrangement otherwise.

Appendix B

Sprint's Comments on AT&T's Proposed "Bill-and-Keep Framework for Terminating PSTN Traffic"

AT&T, in Appendix A to its February 24, 2012 Comments, sets forth detailed proposed rules that describe its "Bill-and-Keep Framework for Terminating PSTN Traffic." Sprint below provides "redlines" to AT&T's proposals by striking through language that Sprint believes should be deleted and underlining language it believes should be added. Sprint also explains the reasons for its changes.

1. Scope of Rules

The rules below are default rules only, to be used if two carriers cannot agree to different arrangements. Carriers are encouraged to use different arrangements if they mutually determine that the different arrangements would better serve their needs.

Sprint Comments: Sprint believes any new rules should specifically note they are default rules only and that carriers are free to agree to different arrangements.

1.1 Definitions

(a) *Interconnection* means the physical linking of carrier networks for the exchange of traffic.

(i) *Direct interconnection* is an ~~facility~~ arrangement that ~~connects~~ links a Sending Carrier's Network Edge to a Terminating Carrier's ~~network~~ Network Edge using an ~~Entrance~~ Interconnection Facility, which may be self-provisioned by the Sending Carrier or purchased from the Terminating Carrier.

Sprint Comments: Sprint proposes use of term "Interconnection Facility," which more accurately and completely describes the function performed.

(ii) *Indirect interconnection* is an ~~facility~~ arrangement where a Sending Carrier's network is linked to ~~uses~~ an Intermediate Carrier's ~~transmission services (dedicated or tandem-switched)~~ network so the Sending Carrier's network can be linked ~~to deliver its traffic~~ to the Terminating Carrier's network for the exchange of traffic. In this context, the Intermediate Carrier interconnects directly with both the Sending Carrier and the Terminating Carrier.

Sprint Comments: AT&T's proposal includes detail that is unnecessary (*e.g.*, different ways an Intermediate Carrier may provide indirect interconnection). The proposal also creates a controversy needlessly (*i.e.*, the use of the term "services" suggests that the relationship between

an Intermediary Carrier and a Sending Carrier is always a vendor-customer relationship). Sprint believes that FCC interconnection rules should describe the function being performed, and it notes that AT&T's Comments also describe its proposed terms by reference to "network functions" performed rather than services provided.[101]

~~(b) *Entrance Facility* refers to the transmission facilities that connect the Sending Carrier's network or the Intermediate Carrier's network to the Terminating Carrier's network. The Entrance Facility ends at the designated Point of Interconnection on the Terminating Carrier's network.~~

(b) *Interconnection Facility* refers to the link connecting two networks with each other. With direct interconnection, an Interconnection Facility is the link connecting the Sending Carrier's Network Edge to the Terminating Carrier's Network Edge. With indirect interconnection, the Interconnect Facility refers to the link connecting the Sending Carrier's Network to the Intermediate Carrier's Network and the link connecting the Intermediate Carrier's Network to the Terminating Carrier's Network Edge.

Sprint Comments: Interconnection is defined above as the "physical linking of carrier networks for the exchange of traffic." This physical link is most naturally called an "Interconnection Facility," and this is a term the FCC has long used.[102]

AT&T does not propose a term that always describes the link connecting the Sending Carrier's network with the Terminating Carrier's Network Edge. It rather uses different terms that may describe an interconnection facility in some circumstances, but not in other circumstances.

For example, it appears that an interconnection facility would be an "Entrance Facility" in some cases but not other cases (*i.e.,* when the POI is different than the Network Edge).[103] It appears that AT&T's new term, "Extra-Edge Transmission" could also be an interconnection facility in some cases but not other cases (*e.g.,* when the POI-to-Edge link is provided by a carrier other than the Terminating Carrier).

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101 *See, e.g.,* AT&T Comments at 54.

102 *See. e.g., Triennial Review Remand Order,* 20 FCC Rcd 2533, 2611 ¶ 140 (2005)(ILECs must provide to competitive carriers "interconnection facilities pursuant to section 251(c)(2)."); *Triennial Review Remand,* 18 FCC Rcd 16978, 17204 ¶ 366 (2003)("[T]o the extent that requesting carriers need facilities in order to "interconnect with the [incumbent LEC's] network," Section 251(c)(2) provides for this."); *AT&T Offer of Facilities for Use by Other Common Carriers,* 49 F.C.C.2d at 729, 730 (1974).

103 There is an additional danger in using the term "Entrance Facility" because that same term has been used in the past in a somewhat different context. Specifically, the term "entrance facility" was developed in the early 1980s when the FCC established the access regime. The term historically has been used to describe the link between an IXC's point of presence and an ILEC's serving wire center – and thus this term describes only a portion of an interconnection facility that IXCs have used in connecting to LEC networks.

(c) *Intermediate Carrier* is a ~~provider of Third-Party Tandem-Switched Transport Service or Third-Party Transport Service~~ network owner that connects a Sending Carrier's network with a Terminating Carrier's network so the Sending and Terminating Carriers can exchange traffic with each other.

Sprint Comments: Sprint believes its more concise definition describes more accurately the network function an Intermediate Carrier performs in indirect interconnection.

(d) *Network Edge* is ~~the building location on the Terminating Carrier's network~~ a point within a ~~LATA~~ State ~~that serves as the *financial* point of interconnection, i.e., the demarcation point on the Terminating Carrier's network beyond which the Terminating Carrier may not charge any other carrier for the Transport and Termination of traffic. Said another way, it is the point~~ at which financial responsibility for the costs of delivering traffic shifts from the Sending Carrier to the Terminating Carrier.

Sprint Comments: Sprint believes its much shorter definition describes the function of a Network Edge more clearly than AT&T's proposal.

AT&T also does not explain why a Network Edge must include a "building location." The Rural Transport Rule, for example, defines a Network Edge as a "meet point," yet there is rarely a building at the meet point.

While TDM interconnection has historically occurred on a LATA-by-LATA basis, the rationale underlying LATAs no longer exists and Sprint therefore recommends that TDM interconnection be permitted on a State-by-State basis. LATAs were used for interconnection because the MFJ antitrust decree prohibited the RBOCs from carrying traffic across LATA boundaries. All of the RBOCs have now been relieved of this LATA restriction, and they can today transport traffic across LATA boundaries. LATAs were further used in implementing the access charge regime. The 1996 Act requires all traffic be exchanged on a reciprocal basis and directed the FCC to eliminate the access regime. Continuing use of LATAs would be inconsistent with the FCC finally fulfilling the statutory directive to eliminate the access regime by establishing 251(b) as the basis for the exchange of all traffic. Moreover, modern networks are not designed around LATAs. Authorizing carriers to reduce the number of TDM interconnection points from one per LATA to one per State will enable all carriers to realize network efficiencies by having fewer, higher capacity interconnection facilities. A single POI per State regime will also facilitate the transition to all-IP networks, as the evidence in the record demonstrates that two IP networks will interconnect for the exchange of voice traffic at only a handful of locations across the country

(i) ~~The Network Edge also is the *default* building location on the Terminating Carrier's network where it offers interconnection to Sending Carriers and Intermediate Carriers in order to receive traffic for termination on its network. Thus, the Network Edge will often be the Point of Interconnection. As discussed below, however, this will not always be the case, because Sending Carriers are sometimes entitled to designate alternative POIs, and Terminating Carriers are sometimes entitled to designate "Alternative Edges." But these alternatives have financial consequences for the carriers electing them, as discussed below in §§ 3.b & 3.c.~~

A Terminating Carrier must designate a Network Edge at a competitively neutral location, where interconnecting carriers have competitive alternatives, other than the facilities provided by the terminating carrier to transport traffic to the terminating carrier's network.

Sprint Comments: AT&T's proposed paragraph (i) is difficult to understand and invites controversy as a result. Sprint believes the first paragraph in a definition of Network Edge should describe the overarching principle that governs the location of a Terminating Carrier's Network Edge. Sprint's proposed language is taken from ¶ 1321 of the *FNPRM*.

It is critically important that the FCC's definition of Network Edge include a "competitively neutral interconnection location" requirement. The need for this requirement is best explained with a concrete example. Assume a LEC does not own a tandem switch in the LATA. Under AT&T's proposal, that LEC would then designate as its Network Edge its end office serving the called party.

Some LECs, however, do not permit any interconnection at their switches, instead requiring other carriers to connect at its "meet point," which is located at some point away from its switch. In this situation, a Sending Carrier would deliver its traffic to the meet point, where the LEC would assume responsibility for delivering this traffic from its meet point to its end office (and eventually to the called party). In this arrangement, the LEC has created a monopoly in the delivery of traffic to its end office, because only the LEC operates any facilities that connect its meet point with its switches.

Under AT&T's Edge proposal, the Network Edge for this LEC would be located at its end office switch and Sending Carriers would be financially responsible for delivering their traffic to that switch. But the only way to reach that switch is *via* the monopoly facilities that connect the LEC's meet point with its end office switch. The terminating LEC has complete control over the prices it charges for use of its monopoly facilities, and it has the strong incentive to increase the prices for use of the monopoly facilities, if only to offset the reduction in intercarrier compensation.

The FCC recognized this "monopoly facilities" problem in its Rural Transport Rule ("RTR"). In the RTR, the FCC established an RLEC's meet point as the Network Edge. Under the RTR, a Sending Carrier is financially responsible for delivering its calls to the meet point, and the RLEC assumes all of the costs associated with getting this traffic from its meet point to the called parties.

But there can also be problems even with use of a meet point as the Network Edge. Sometimes, the only facilities that exist to a particular LEC's meet point are the facilities of a large ILEC that also provides transit arrangements to Sending Carriers. By making the Sending Carrier responsible for delivering traffic to the terminating LEC's meet point, the FCC has effectively moved the "monopoly facility bottleneck" from the terminating LEC to the Intermediate Carrier that provides transit arrangements.

For this reason, Sprint submits it is necessary that the FCC define a "competitively neutral interconnection location" Network Edge requirement so Sending Carriers can interconnect with the terminating LEC either directly or indirectly.

(ii) The following locations, or equivalent locations, will presumptively be Network Edges ~~within a LATA~~:

(1) ***End Office serving the called party,*** when that end office does not subtend a tandem switch owned by the Terminating Carrier or any of its affiliates.

(2) ***Tandem Office ~~serving the called party's End Office~~,*** when the Terminating Carrier or one of its affiliates owns the tandem switch ~~serving that end office~~.

(3) ***Point of Presence*** ("POP"), when the Terminating Carrier does not have a switch in the ~~LATA~~ State where the traffic is terminated.

(4) ***Mobile Switching Center*** ("MSC"), for CMRS traffic.

Sprint Comments: Although affiliated firms operate only one network, they have used these separate affiliates as a way to increase needlessly the costs of their rivals.[104] As Sprint has explained in its comments, it is important that the FCC rule that an ILEC and all of its affiliates in a State shall jointly establish one, consolidated Network Edge in a State for all of that ILEC's affiliates in the State.[105]

(iii) If use of one of the locations listed in paragraph (ii) does not permit a competitively neutral location for interconnection, a Terminating Carrier shall then designate as its Network Edge a location where competitively neutral interconnection is available.

~~(iii) ***Alternative Edge***. If interconnection is not technically feasible at the location that should be the Terminating Carrier's Network Edge under § 1.d.ii above, or if the Terminating Carrier is exempt from 47 U.S.C. § 251(c) and does not offer interconnection at its Network Edge, the Terminating Carrier must designate a different location in its service territory as its "Alternative Edge."~~

Sprint Comments: AT&T proposes to use the new term, "Alternative Edge," when interconnection is "not technically feasible" at the Network Edge. As a practical matter, the proposed "Alternative Edge" concept is an exception to the general Network Edge rules.

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104 For the purpose of these interconnection rules, ILEC affiliates include any carrier that is wholly or partially owned by the ILEC or shares a corporate parent.

105 *See* Sprint Comments at 46-48.

Sprint submits that the better approach is to define Network Edge in way so that no exceptions are necessary. Sprint believes its "competitively neutral" definition of Network Edge described immediately above does this.

(iv) A Sending Carrier may, at its sole discretion, choose to send some or all of its traffic to an ILEC at a single point in that State. This single point per State shall be deemed the ILEC's Network Edge in that State.

Sprint Comments: This new paragraph implements the one POI per State (or one Network Edge per State) proposal discussed above.

~~(e) *Point of Interconnection* ("POI") refers to the *physical* location on the Terminating Carrier's network where interconnection occurs and the Entrance Facility is terminated. For example, POIs may include locations such as a tandem trunk ports and transmission facility cross-connects.~~

Sprint Comments: While AT&T's definition of POI is accurate, the concept of a POI is not material in a "Network Edge" environment. A POI is relevant to the ownership and control of network equipment. But who owns or controls some or all of interconnection facilities is not relevant under a Network Edge construct. Under the Network Edge approach, the Sending Carrier has the financial obligation to connect to the Terminating Carrier's Network Edge, and for purposes of this financial obligation, it makes no difference whether the Sending Carrier interconnects directly or indirectly with the Terminating Carrier or whether the Sending Carrier uses its own facilities or those of a third party (or some combination of the two) – because in all of these cases, the Sending Carrier still remains financially obligated to deliver its traffic to the Terminating Carrier's Network Edge.

AT&T acknowledges that a POI is "not always" the location of the Network Edge. This fact compels AT&T to develop and use new terms (*e.g.*, "Alternative Edge," "Extra Edge Transmission") to describe situations where the POI is not the Network Edge. This approach has the effect of unduly complicating the proposed rules, which, in turn, invites future controversy. As demonstrated below, interconnection rules could be simplified considerably by not including a reference to the concept of POI and by instead focusing on Network Edges.

(f) *Sending Carrier* is the ~~originating~~ carrier serving the calling party or the ~~IXC~~ carrier serving the calling party's carrier.

(g) *Terminating Carrier* is the carrier that ~~terminates~~ delivers the call to the called party served by its network.

~~(h) *Third-Party Tandem-Switched Transport Service* is a transmission service offered by a third-party carrier that uses tandem transmission and switching facilities to transit traffic from the Sending Carrier's network to the Terminating Carrier's network. Third-Party Tandem-Switched Transport Service is an indirect interconnection arrangement.~~

~~(i) *Third-Party Transport Service* is any transmission service other than Third-Party Tandem-Switched Transport Service (including, but not limited to, dedicated transport~~

~~and special access) offered by a third-party carrier that is used to deliver traffic from the Sending Carrier's network to the Terminating Carrier's network. Third-Party Transport Service is an indirect interconnection arrangement~~.

(h) Transit is a network arrangement provided by an Intermediate Carrier that links a Sending Carrier's network to a Terminating Carrier's network so the Sending and Terminating Carriers can exchange traffic with each other.

Sprint Comments: Sprint believes its more concise definition of transit is superior to AT&T's two proposals.

(j) ~~*Transport*, *Termination*,~~ and ~~*Extra-Edge Transmission*~~

~~(i) *Transport* refers to the dedicated and common transmission facilities and necessary tandem switching from the Network Edge to the Terminating Carrier's end office switch, or equivalent facility, that directly serves the called party.~~

~~(ii) *Termination* refers to the switching at the Terminating Carrier's end office switch, or equivalent facility, and delivery of such traffic to the called party's premises~~.

~~(iii) *Extra-Edge Transmission* refers to the dedicated and common transmission facilities provided by the Terminating Carrier to deliver traffic from the Sending Carrier's network or the Intermediate Carrier's network to the Terminating Carrier's Network Edge. This term includes *both* (i) any Entrance Facility used to link the Sending Carrier's network or the Intermediate Carrier's network to a Point of Interconnection on the Terminating Carrier's network and (ii) any transmission or switching necessary to deliver traffic from the Point of Interconnection on the Terminating Carrier's network to that carrier's Network Edge~~.

Sprint Comments: The terms transport and termination are not particularly relevant in a bill-and-keep regime because the Terminating Carrier is responsible for costs of delivering traffic from its Network Edge to its called party customer.

The problems with AT&T's proposed Extra-Edge Transmission term in paragraph (iii) are the same as the problems discussed above with AT&T's POI definition: not only would this new term unduly complicate FCC interconnection rules, but the term is also unnecessary.

2. General Interconnection Duties of All Carriers

(a) ~~Network Edges within a LATA are the locations defined above. Every Terminating Carrier must identify its Network Edges and the network addresses that can be terminated through each of its Network Edges~~. Every Terminating Carrier (and all of its affiliates in a State that provide TDM-based voice services) must identify at least one Network Edge in a State.

(i) If Terminating Carrier and its TDM affiliates designate more than one Network Edge, a Sending or Intermediate Carrier shall, at the Sending or Intermediate Carrier's sole discretion, be permitted to select one of the designed Network Edges for delivery of all traffic destined to the Terminating Carrier and its affiliates.

(ii) If a Sending or Intermediate Carrier elects to send its traffic to only one Network Edge, the Sending or Intermediate Carrier must, upon request of the Terminating Carrier, segregate its traffic by the Terminating Carrier's (and its affiliates) end office destination.

(iii) The obligation for delivery of the traffic from the Network Edge to its destination always remains with the Terminating Carrier.

Sprint Comments: The reason for Sprint's proposals, which are designed to improve the efficiency of TDM interconnection, set the stage for implementation of bill-and-keep, and facilitate the transition to all IP networks, are explained in its Comments.[106] The segregation provision in paragraph (ii) will permit the Terminating Carrier to avoid tandem switching if it prefers to direct trunk the traffic instead. Regardless, the Terminating Carrier has the financial obligation for any switching or transport costs incurred in delivering incoming traffic from the Network Edge to its customers being called

~~(b) This Framework assumes that every Terminating Carrier will offer direct interconnection and indirect interconnection at its Network Edges for the termination of traffic. However, in some circumstances Terminating Carriers will not do so.~~

~~(i) Where interconnection is not technically feasible at the Network Edge, the Terminating Carrier must offer interconnection at an Alternative Edge. *See* § 1.d.iii, *supra.*~~

~~(ii) Where the Terminating Carrier is exempt from section 251(c), and it does not offer interconnection at the Network Edge or it insists on only indirect interconnection there, the Terminating Carrier must offer direct and indirect interconnection at an Alternative Edge. *See id.*~~

Sprint Comments: This AT&T proposed rule is unnecessary if the FCC adopts Sprint's proposal to require ILECs to accommodate a single POI per State (or a single Network Edge per State) upon request.[107]

(c) ~~Some ILECs are subject to additional interconnection duties pursuant to section 251(c)(2). Thus, Sending Carriers may demand that those ILECs interconnect at locations other than the Network Edge:~~ Terminating carriers that are subject to Section 251(c)(2) of the Act have the following additional duties:

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106 *See* Sprint Comments at 34-36 and 46-48.

107 *See* Sprint Comments at 34-36.

(i) Every ILEC subject to section 251(c)(2) must offer physical interconnection for the transmission and routing of traffic at any technically feasible point ~~on~~ within its network within a State.

Sprint Comments: The statute specifies that subject ILECs must provide interconnection "within" its network, not "on" its network. Changing the statute's preposition from "within" to "on" would only invite future controversy and litigation.

~~(ii) Such an ILEC may be required to interconnect physically with a Sending Carrier or an Intermediate Carrier at a single POI in each LATA for termination of traffic on the ILEC's network in that LATA.~~

Sprint Comments: This subject is addressed in § 2(a) above.

(ii) Every ILEC subject to § 251(c)(2) must, upon request, provide Interconnection Facilities at TELRIC rates.[108]

Sprint Comments: Last year, the Supreme Court affirmed FCC orders issued in 2003 and 2005 that required ILECs to provide Interconnection Facilities at cost-based (TELRIC) rates. AT&T now asks the FCC to reconsider its 2003 and 2005 orders.[109]

AT&T misstates the Supreme Court's holding:

AT&T Comments at 65	**Supreme Court Language**[110]
"As the Supreme Court noted, "the statute makes clear that an incumbent LEC need not provide *any* facilities – much less entrance facilities – to provide interconnection. . . . § 251(c)(2) does not mention incumbent LECs' facilities, but rather mandated only that incumbent LECs provide interconnection 'for the facilities and equipment of any [competing] carrier'" (emphasis in original).	"***AT&T contends*** that the statue makes clear that an incumbent LEC need not provide access to *any* facilities – much less entrance facilities – to provide interconnection. ***The company points out*** that § 251(c)(2) does not mention incumbent LECs' facilities, but rather mandates only that incumbent LECs provide interconnection 'for the facilities and equipment of any [competing] carrier.' . . . ***We do not find the statute so clear.***"

In fact, the Supreme Court rejected AT&T's argument and found that AT&T's "characterization of what the Commission has done, and is doing, *is inaccurate*."[111]

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[108] Sprint further proposes that to eliminate further controversy, the FCC should further clarify that any such TELRIC cost study must be based on packet technology because such technology is "the most efficient telecommunications technology currently available." 47 C.F.R. § 51.505(b)(1).

[109] *See* AT&T Comments at 64-67.

[110] *See Talk America* v. *Michigan Bell,* 2254, 2260 (2011)(italics only in original; italics and bold added).

In support of its reconsideration request, AT&T asserts that its revised interpretation of § 251(c)(2) is "the most natural reading of the statute" and "also makes abundant sense as a policy matter."[112] AT&T, however, neglects to advise the Commission that the Court explicitly found that the FCC's interpretation of § 251(c)(2) in 2003 – and which it reaffirmed in 2005 – is "more than reasonable" and is "perfectly sensible."[113]

AT&T alternatively asks (in a single paragraph) that the FCC forbear from requiring AT&T to comply with its duties under § 251(c)(2).[114] One of the requirements that the FCC must consider in a forbearance proceeding is that the requested relief "is consistent with the public interest."[115] As Sprint has explained in some detail, the FCC made clear in 1996 that wireless carriers are entitled to receive interconnection facilities at cost-based rates.[116] Fifteen years later, Sprint has still been unable to obtain such facilities at cost-based rates. The reason is that ILECs, and AT&T in particular, have ignored the FCC's clear orders, deciding instead to litigate the matter before every court they could. AT&T now makes its forbearance argument having finally lost the issue in the Supreme Court. Sprint submits that in these circumstances it would not be in the public interest to grant AT&T's summary forbearance request, as grant of such relief would only encourage ILECs in the future to continue to ignore explicit FCC orders.

~~(d) The Terminating Carrier may require Sending Carriers and Intermediate Carriers to establish separate trunk groups when sufficient traffic exists to a given end point on the Terminating Carrier's network (e.g., a tandem switch or end office switch), or to accommodate specific traffic routing destinations (e.g., 800 traffic).~~

Sprint Comments: The rule AT&T proposes is antithetical to the explicit commands of § 251(c)(2), as Sprint has already explained.[117] Moreover, the proposed rule is unnecessary. Undocumented ILEC concerns about tandem exhaust are addressed by the CTIA METE proposal to segregate traffic by each Terminating Carrier's end office switches.[118] The effect of the ruling AT&T seeks would be to move the cost of transport from the Terminating Carrier to the Sending Carrier, contrary to the FCC's decision on this issue.

3. Terminating Rate Structure

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111 *Talk America*, 131 S. Ct. at 2264 (italics added).

112 AT&T Comments at 66.

113 *Talk America*, 131 S. Ct. at 2262. Given these Supreme Court findings, AT&T's suggestion that an appellate court may now suddenly "reject" the interpretations of § 251(c)(2) that the FCC made in 2003 and 2005 (*see* AT&T Comments at 66) borders on the frivolous.

114 *See* AT&T Comments at 66-67.

115 *See* 47 U.S.C. § 160(a)(3).

116 *See* Sprint Comments at 41-45.

117 *See* Sprint Comments at 32-34.

118 *See* Sprint Comments at 30-31.

(a) ~~*General rule:*~~ The Sending Carrier bears the financial obligation to deliver its traffic to the Terminating Carrier's Network Edge ~~(or Alternative Edge~~). The Terminating Carrier bears the financial obligation to deliver that traffic from the Network Edge ~~(or Alternative Edge)~~ to the called party. ~~The following sections flesh out this general rule.~~

Sprint Comments: AT&T's "Alternative Edge" concept is unnecessary under Sprint's proposal. AT&T uses this concept when interconnection is "not technically feasible" at the Terminating Carrier's designated Network Edge.[119] In contrast, under Sprint's proposal, interconnection would always be available at the Network Edge so there is no need for an "Alternative Edge."

(b) If a Terminating LEC insists on indirect interconnection at its Network Edge, the Terminating LEC bears the costs of transit arrangements to reach that Edge, and the Sending Carrier's financial obligation ends by delivering its traffic to the transit provider designated by the Terminating Carrier.

Sprint Comments: This paragraph restates the provision AT&T included in its § 3(c)(iii) below.

~~(b) The Sending Carrier bears the financial obligation to deliver its traffic to the Point of Interconnection on the Terminating Carrier's network, which may or may not coincide with the Network Edge.~~

~~(i) When the Sending Carrier elects to interconnect directly, the Sending Carrier bears the financial obligation for the Entrance Facility that links the Sending Carrier's network to the Point of Interconnection on the Terminating Carrier's network. The Sending Carrier can construct its own Entrance Facility or purchase Extra-Edge Transmission from the Terminating Carrier.~~

~~(ii) When the Sending Carrier elects to interconnect indirectly, the Sending Carrier also bears the financial obligation for the Third-Party Tandem-Switched Transport Service or Third-Party Transport Service used to deliver its traffic to the Point of Interconnection on the Terminating Carrier's network. (As discussed in § 3.c.iii below, this rule does not apply when the *Terminating Carrier* insists on indirect interconnection.)~~

Sprint Comments: If the FCC is going to use the term, "Network Edge" as AT&T proposes, then there is no reason for the rules to discuss POIs as well. Discussing both leads to the situation in § 3(b) above where AT&T attempts to explain what happens when the POI and Network Edge do "not coincide."

~~(c) When the POI and the Network Edge are not in the same location, the Sending Carrier also bears the financial obligation for any Extra-Edge Transmission necessary to deliver its traffic from the POI to the Terminating Carrier's Network Edge. (That is, the Terminating Carrier is entitled to charge the Sending Carrier for dedicated transport,~~

[119] *See* AT&T Appendix A at 2, § 1(d)(iii).

~~common transport, and/or special access used to deliver traffic from the POI to its Network Edge).~~

~~(i) This rule assumes that the Terminating Carrier offers direct and indirect interconnection at its Network Edge, and the Sending Carrier insists on a different Point of Interconnection. *See* § 2.c, *supra*. Where this is *not* the case, and the Terminating Carrier designates an Alternative Edge in accordance with §§ 1.d.iii and 2.b, the Terminating Carrier, and not the Sending Carrier, bears the financial obligation for the transmission necessary to deliver the Sending Carrier's traffic from the Alternative Edge to the point on the Terminating Carrier's network that otherwise would constitute the Network Edge. (As always, the Terminating Carrier also bears the costs of Transport and Termination as well. *See* § 3.d below.)~~

~~(ii) When the Sending and Terminating Carriers interconnect directly at an Alternative Edge, the costs borne by the Terminating Carrier include *all* transmission and switching on the Terminating Carrier's network beyond the Alternative Edge.~~

Sprint Comments: The provisions in § 3(c) above are unnecessary under Sprint's proposal which does not use the term "POI" and "Alternative Edge," which Sprint believes merely unduly complicates the rules.

~~(iii) When a Terminating Carrier insists on *indirect* interconnection at the Network Edge, it is essentially designating an Alternative Edge at the facilities of an Intermediate Carrier. Accordingly, the Sending Carrier bears the financial obligation to deliver its traffic *only* to that Alternative Edge, and the Terminating Carrier bears the costs from that point on, including costs for any Third-Party Tandem-Switched Transport Service or Third-Party Transport Service.~~

Sprint Comments: Sprint has moved this point to § 3(b) above.

~~(d) The Terminating Carrier bears the financial obligation for Transport and Termination of the Sending Carrier's traffic from the Terminating Carrier's Network Edge to the called party's premises.~~

Sprint Comments: This paragraph is unnecessary because it merely restates what is already included § 3(a) above.

~~4. Implications of Carriers' Interconnection and Compensation Obligations for Different Rate Elements~~

Sprint Comments: Sprint submits AT&T's proposed § 4 is unnecessary given the definition of Network Edge in § 1.1(d) above and § 3(a) above which clearly defines the financial obligations of the Sending Carrier and the Terminating Carrier.

~~(a) Terminating dedicated transport access elements (entrance facilities, direct end-office trunking, and dedicated switched transport) will be subject to the interconnection and compensation Framework described above. Accordingly, subject to the exceptions discussed in § 3 above, Sending Carriers will compensate Terminating Carriers if they choose to rely on Terminating Carriers for any dedicated transport needed to reach the Terminating Carrier's Network Edge.~~

~~(b) All common transport and tandem switching charges also will be subject to the Framework above. Accordingly:~~

~~(i) Terminating Carriers will not be entitled to compensation for tandem switching and common transport when they own the access tandem serving the end office that serves the called party. This is because the access tandem will be the Terminating Carrier's Network Edge.~~

~~(ii) Subject to the exceptions discussed in § 3 above, Sending Carriers will compensate Terminating Carriers if they choose to rely on Terminating Carriers to provide any common transport needed to reach the Network Edge.~~

~~(c) Sending Carriers will compensate Intermediate Carriers for whatever services they choose to purchase from Intermediate Carriers, including dedicated transport, common transport, tandem switching, or other network functions.~~[120]

~~(d) The tandem switching and common transport elements of jointly provided access service should be conformed and unified with local transit service to become Third-Party Tandem-Switched Transport Service as described in this Framework.~~

5. ~~Further Detail Concerning Third-Party Tandem-Switched Transport Service~~ Transit Arrangements

~~(a) Third-Party Tandem-Switched Transport Service is tandem switching and transport provided by an Intermediate Carrier that enables indirect interconnection between two carriers.~~

~~(i) This service is called "transit" today when provided in connection with non-access traffic. Under this Framework, all regulatory distinctions will be eliminated between local "transit" service and the identical functionality in the access context (i.e., jointly provided tandem switching and common transport access services).~~

Sprint Comments: This definition is unnecessary given the modifications made in § 1.1(a)(ii) above.

~~120 When a Terminating Carrier uses an Intermediate Carrier to transport traffic within the Terminating Carrier's Network Edge (for example, where the former has designated an Alternative Edge), the Terminating Carrier must compensate the Intermediate Carrier.~~

~~(b) The rates, terms, and conditions of Third-Party Tandem-Switched Transport Service shall be unregulated and governed solely by bilateral contract arrangements.~~

(a) ILECs subject to § 251(c)(2) are required to provide transit arrangements at cost-based (TELRIC) rates.

(b) An ILEC subject to § 251(c)(2) need not prepare a TELRIC cost study if it elects to charge no more than $0.00035 per minute for providing transit.

Sprint Comments: Sprint and other parties have demonstrated that § 251(c)(2) of the Act requires ILECs to provide transit interconnection at cost-based (TELRIC) rates.[121] Paragraph (b) reflects an optional arrangement that Sprint proposed in its Comments.[122]

In addition, to eliminate further controversy, the FCC should further clarify that any transit TELRIC cost study must be based on packet technology because such technology is "the most efficient telecommunications technology currently available." 47 C.F.R. § 51.505(b)(1).

~~(c) The Sending Carrier shall bear the financial obligation for delivering its traffic to the Third-Party Tandem-Switched Transport Service provider's location.~~

Sprint Comments: This provision is unnecessary. In addition, it will not always be the Sending Carrier that pays for transit because, as AT&T proposes, when a Terminating LEC insists on indirect interconnection to its Network Edge, it will be the Terminating LEC that pays for the transit arrangements.

6. Transition from Tariffs to Interconnection Agreements for Section 251(b)(5) Traffic

(a) Effective July 1, 2013, the ~~The~~ rates, terms, and conditions for all terminating charges that are encompassed by section 251(b)(5) and subject to the transition set out in the *Order* should be set through interconnection agreements, not tariffs. After that date, all ~~All~~ terminating charges subject to the transition should be removed from access tariffs and should instead be included in section 252 agreements for interconnection and reciprocal compensation.

~~(i) This rule should apply at Step 7 for price cap ILECs and all carriers that are on a similar transition.~~

~~(ii) This rule should apply at Step 9 for rate of return ILECs and all carriers that are on a similar transition~~.

Sprint Comments: The FCC has recognized that the tariff procedure is incompatible with the negotiation process that Congress has mandated for the reciprocal compensation regime, and

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121 *See, e.g.,* Sprint Comments at 63-65.

122 *See id.* at 65-68.

courts have recognized that tariff regime "places a thumb on the negotiating scales."[123] The FCC needs to eliminate the tariffing option as soon as possible, and Sprint proposes that access tariffs be prohibited effective July 1, 2013.

(b) ~~Carriers are free to enter into contractual agreements prior to these time periods~~. Prior to the date that tariffing arrangements are prohibited, an ILEC must, at the request of a competitive carrier, negotiate terms and conditions for an agreement that would apply to the interconnection and exchange of all traffic, including access traffic. Such terms and conditions may be different than those contained in an ILEC's tariffs. Such consolidated agreements, or disputes concerning the terms and conditions of such agreements, are subject in full to the provisions set forth in § 252.

Sprint Comments: As Sprint has explained, LECs that can tariff the terms and conditions of interconnection and the exchange of traffic have no incentive to negotiate different terms and conditions.[124] Until the tariff arrangement is removed altogether, the FCC needs to impose an affirmative obligation on LECs to negotiate in good faith interconnection agreements that would apply to all traffic exchanged between the two parties.

~~(b) All carriers shall be required to negotiate interconnection agreements and to submit to the state arbitration process set out in section 252~~.

Sprint Comments: Sprint has placed this provision in § 6(a)(iii) above.

~~(c) Beginning at Step 7 for price cap ILECs and all carriers that are on a similar transition and at Step 9 for rate of return ILECs and all carriers that are on a similar transition, the Commission will eliminate access tariffs for traffic subject to the transition~~.

Sprint Comments: This provision is unnecessary because it repeats § 6(a) above.

~~(i) The Commission should make clear that it is eliminating the provision of the MFJ preserved by section 251(g) that required access rate elements to be filed in tariffs~~.[125]

Sprint Comments: This provision appears to be unnecessary. The MFJ has not existed since the 1996 Act became law.

~~(d) All terminating traffic should be treated identically. The interconnection and reciprocal compensation distinctions between terminating "access" and "non-access" traffic should be eliminated.~~

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123 *See* Sprint Comments at 49-50.

124 *See* Sprint Comments at 50-51.

~~125 *See United States v. American Tel. & Tel. Co.*, 552 F. Supp. 131, 227 (D.D.C. 1982), *aff'd*, 460 U.S. 1001 (1983).~~

Sprint Comments: This provision is unnecessary because it is fully addressed in the revised Part 51 rules that the FCC adopted in its Order.

~~(e) Rates, terms, and conditions for Third-Party Tandem-Switched Transport Service and Third-Party Transport Service should be established through commercial agreements, not section 252 interconnection agreements or tariffs.~~

Sprint Comments: Transit is more appropriately addressed in the transit section, § 5 above.

~~**7. Additional Changes That the Commission Should Make Effective on July 1, 2012**~~

Sprint Comments: Sprint submits that AT&T's proposed § 7 is unnecessary. In this section, AT&T raises issues that carriers are already implementing (the use of bill-and-keep beginning on July 1); issues that the FCC is addressing as part of the reconsideration process; proposed rules that merely restate exiting rules; and deadlines that would not take effect for another eight years (which seem particularly out of place for a section titled, "Make Effective July 1, 2012").

~~(a) The *Order* provides that LEC-CMRS non-access traffic will be transitioned to bill-and-keep on July 1, 2012. *Order* ¶¶ 978, 988, 994-1002. The Commission should modify its proposed implementation framework to mirror the Framework set out above, though it could retain its special interim transport protection for rural rate-of-return ILECs.~~

~~(i) The framework adopted in the *Order* suggests that a Terminating Carrier's Network Edge for purposes of LEC-CMRS non-access traffic would be the existing Point of Interconnection between the two carriers' networks. That said, the Commission expressly noted that it did not wish to prejudge this issue, and it sought comment on its proposed solution. *Id.* ¶ 998-99. For all the reasons discussed in Section III.B of AT&T's comments, a regime that converted existing POIs into Network Edges would be highly inefficient. *See* AT&T Comments at 69-71. Instead, the Commission should adopt AT&T's proposed interconnection and compensation Framework for all LEC-CMRS non-access traffic that transitions to bill-and-keep on July 1, 2011.~~

~~(ii) As the Commission explained in the *Order*, an immediate flash-cut to the full bill-and-keep end state might not be appropriate for some rural rate-of-return ILECs. *Order* ¶¶ 997-98. Thus, such carriers should be entitled to *opt out* of AT&T's proposed Framework and instead take advantage of the interim rural transport rule adopted in the *Order*. *Id.* ¶ 999.~~

~~(1) Under that rule, rate-of-return RLECs sending non-access traffic to CMRS providers would not be responsible for the costs of transport or any other network function past the meet point in their service area. Instead, the CMRS provider would transport and terminate the call on a bill-and-keep basis.~~

(2) Similarly, for CMRS-originated non-access traffic, the CMRS provider would bear the costs of transporting the traffic to the meet point in the RLEC's service area. The RLEC would then take over financial responsibility for the traffic at the meet point and transport and terminate it on a bill-and-keep basis.

(3) This interim rule will sunset at Step 9, at which time rural rate-of-return ILECs will be subject to the general Framework applicable to all other carriers.

(iii) The Commission should, however, make three clarifications to the interim rural transport rule adopted in the *Order*.

(1) The only carriers entitled to opt into the interim rural transport rule (and thus out of AT&T's proposed Framework) should be rural rate-of-return ILECs that are on the 9-step ICC reform transition.

(2) RLECs should be entitled to the transport benefits of the rule only if they make *direct* interconnection available to the CMRS provider at the meet point in the RLEC's service area. If an RLEC instead requires CMRS providers to use indirect interconnection, the RLEC should be required to bear the costs of that indirect interconnection.

(3) The interim rural transport rule should apply to RLEC-originated non-access traffic only where the calling and called telephone numbers are in the same rate center. Said another way, the rule should apply only to locally-dialed calls.

(b) All non-access traffic (with the exception of LEC-CMRS traffic, discussed immediately above) should follow the same transition as access traffic and employ the same bill-and-keep framework at the end state. Specifically, at Step 7 for price-cap carriers (and all carriers that are on a similar transition), and at Step 9 for rate-of-return carriers (and all carriers that are on a similar transition), the Commission should employ AT&T's bill-and-keep framework for *both* access and non-access traffic. As discussed above, this would mean that many network functions, including dedicated transport and transit, would not go to bill-and-keep even for traffic that today falls within the reciprocal compensation regime.

Sprint's Proposed Amendment of FCC Rule 51.790(b):

Sprint proposes that current Rule 51.709(b) be deleted and replaced with the following:

> Absent agreement by the parties otherwise, the cost of a two-way Interconnection Facility shall be shared equally between the two

connecting networks. One-way Interconnection Facilities shall be used only with the agreement of both parties.

Sprint Comments: As Sprint explained in its Comments, this rule revision reflects the cost-causation principles the FCC recognized in its *Order*.[126]

Sprint's Proposed Amendment of Rural Transport Rule:

Sprint proposes that new Rule 51.709(c) be revised as follows:

> For Non-Access Telecommunications Traffic exchanged between a rate-of-return regulated rural telephone company as defined in § 51.5 that is not affiliated with the owner of a tandem switch and a CMRS provider, the rural rate-of-return incumbent local exchange carrier will be responsible for transport to the CMRS provider's interconnection point when it is located within the rural rate-of-return incumbent local exchange carrier's service area. When the CMRS provider's interconnection point is located outside the rural rate-of-return incumbent local exchange carrier's service area, the rural rate-of-return incumbent local exchange carrier's transport and provisioning obligation stops at its meet point and the CMRS provider is responsible for the remaining transport to its interconnection point. This paragraph (c) is a default provision and applicable in the absence of an existing agreement or arrangement otherwise.

Sprint Comments: As Sprint explained in its Comments, the FCC's rationale for adopting the Rural Transport Rule does not apply to rural LEC affiliates of the tandem switch owner and permitting such affiliated rural LECs to invoke the rule would result in an unjustified windfall.[127]

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126 *See* Sprint Comments at 36-38.

127 *See* Sprint Comments at 45-46.