

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 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
	)	
Universal Service Reform – Mobility Fund	)	WT Docket No. 10-208

**COMMENTS OF THE  
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION**

The National Cable & Telecommunications Association (NCTA)<sup>1</sup> hereby submits its comments in response to sections XVII.L-R of the further notice of proposed rulemaking portion of the *CAF Order* in the above-referenced proceedings.<sup>2</sup>

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<sup>1</sup> NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation's cable television households and more than 200 cable program networks. The cable industry is the nation's largest provider of broadband service after investing over \$185 billion since 1996 to build two-way interactive networks with fiber optic technology. Cable companies also provide state-of-the-art competitive voice service to more than 23 million customers.

<sup>2</sup> *Connect America Fund, et al.*, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51, CC Docket Nos. 01-92, 96-45, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 (rel. Nov. 18, 2011) (*CAF Order*).

## INTRODUCTION

In the *CAF Order*, the Commission recognized that there are benefits to carriers adopting Internet Protocol (IP) format and technology for the transport of voice telecommunications traffic.<sup>3</sup> The legacy intercarrier compensation regime created disincentives for some carriers to embrace IP technology, and instead created incentives for them to maintain facilities that rely on older, less efficient Time Division Multiplex (TDM) format for voice traffic transport.<sup>4</sup> While encouraging the use of a more efficient technology is a laudable goal, the simple fact that telephone exchange service and exchange access traffic may be transported in a certain protocol, in this case IP, does not erase the need to retain certain regulations that have facilitated the development of voice competition.

Although some commenters assert that the ability to transport voice traffic in IP format means that such traffic should be treated as just another “app” on the Internet,<sup>5</sup> the technical reality is that most voice traffic is not currently routed in this manner, but continues to rely on privately managed networks and the traditional system of telephone numbers. Despite discussions taking place in forums such as the Technological Advisory Council regarding the theoretical sunset of the public switched telephone network (PSTN),<sup>6</sup> today the overwhelming majority of voice traffic, including all interconnected VoIP and CMRS traffic, must use the traditional telephone network to send or receive telephone calls. So long as that remains the case, the Commission must ensure that incumbent local exchange carriers (LECs) do not stymie the ability of competitive LECs to provide telephone exchange service and exchange access to

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<sup>3</sup> *Id.* at ¶¶ 9, 783, 786, 820, 892.

<sup>4</sup> *Id.* at ¶ 648, 783, 786.

<sup>5</sup> *See, e.g.*, Comments of AT&T, WC Docket No. 10-90, at 24-29 (Apr. 18, 2011).

<sup>6</sup> *Sun-Setting the PSTN*, Technological Advisory Council Critical Legacy Transition Working Group (Sept. 27, 2011), [http://transition.fcc.gov/oet/tac/tacdocs/meeting92711/Sun-Setting\\_the\\_PSTN\\_Paper\\_V03.docx](http://transition.fcc.gov/oet/tac/tacdocs/meeting92711/Sun-Setting_the_PSTN_Paper_V03.docx).

their voice customers. Specifically, the Commission should make clear that incumbent LECs must continue to provide transit services at cost-based rates, and that incumbent LEC interconnection obligations in section 251(c) of the Communications Act of 1934, as amended (the Act) apply to telephone exchange service and exchange access traffic that is in IP format. The Commission should also make clear that IP-to-IP interconnection requirements do not extend to non-voice traffic and are limited to the rights and obligations set forth for telecommunications carriers, LECs, and incumbent LECs pursuant to section 251 of the Act.

As noted in the *CAF Order*, the Commission’s decision that intercarrier compensation ultimately should be governed by a bill-and-keep regime will require a number of decisions regarding matters such as where the “edge” of each network should be located and how many points of interconnection should be required. These are extremely important questions, but it is premature for the Commission to resolve them now. As providers grapple with the transitions from circuit-switched equipment to IP networks and from legacy intercarrier compensation to bill-and-keep, the Commission should give the marketplace time to adapt and potentially develop solutions to some of these questions before establishing any mandatory requirements.

**I. THE COMMISSION MUST ENSURE THE AVAILABILITY OF TRANSIT SERVICES AT REASONABLE RATES, TERMS AND CONDITIONS**

The Commission seeks comment on the appropriate end-state for the regulation of transit services. When two carriers that are not directly interconnected exchange traffic, they use the transit service of another carrier that is directly connected to both.<sup>7</sup> Transit services have been and remain essential in providing consumers with competitive choices for voice services. In

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<sup>7</sup> As the Commission recognized, under a section 251 framework transit services include tandem switching and transport services provided by an incumbent LEC that does not own the end office, which were previously offered as access services. *CAF Order* at ¶ 1312. Under the Commission’s new regime, for calls that previously entailed the joint provision of access the terminating LEC would assess terminating switched end office rates pursuant to the intercarrier compensation phase-down to bill and keep, and the intermediate incumbent LEC providing the tandem switching and transport function would assess transit rates.

some areas there may be one or two providers in addition to the incumbent LEC offering transit service, but these services are not ubiquitous. Even in areas where a provider other than the incumbent LEC may offer transit services, the alternative provider is not connected to every other carrier offering voice services in the area so competitive LECs must retain transit services from the incumbent LEC to reach all third party voice service carriers. In many areas of the country, particularly in rural areas, transit service is only available from the incumbent LEC. Competitive telecommunications carriers rely on incumbent LEC transit services to indirectly connect with other carriers – including incumbent LECs, competitive LECs and wireless carriers.

Section 251(c) of the Act requires incumbent LECs to provide telecommunications carriers with access to transit services at nondiscriminatory cost-based rates.<sup>8</sup> Over the years, state commissions repeatedly and consistently have rejected incumbent LEC arguments to the contrary.<sup>9</sup> A number of those state decisions have been upheld in the courts.<sup>10</sup> Given the importance of these services to a competitive voice marketplace, the Commission should affirm

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<sup>8</sup> 47 U.S.C. § 251(c)(2)(A) and (D) (Each incumbent LEC has “the duty to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier’s network for the transmission and routing of telephone exchange service and exchange access” “on rates, terms, and conditions that are just, reasonable, and nondiscriminatory”).

<sup>9</sup> *See, e.g., Petition of Youghioghney Communications-Northeast, LLC d/b/a Pocket Communications for a Declaratory Ruling that the Southern New England Telephone Company d/b/a AT&T Connecticut is in Violation of Section 16-247B of the Connecticut General Statutes and the Department’s Orders in Docket No. 02-01-23 Relating to Transit Traffic and Federal and State Laws and Regulations Relating to the Transit Traffic Factor*, DOCKET NO. 08-12-04, Decision, at 1, 41 (Conn. Dept. of Pub. Util. Control, Oct. 7, 2009) (affirming that the Connecticut DPUC continues to have statutory authority to regulate transit service and the rates charged for the service).

<sup>10</sup> *See, e.g., Qwest Corp. v. Cox Nebraska Telcom, LLC*, 4:08CV3035, Memorandum Opinion, at 11-12 (D. Neb., Dec. 17, 2008) (“[T]he clear language of Section 251 requires an ILEC to provide transit service pursuant to its interconnection obligations under Section 251(c)(2).”); *The Southern New England Telephone Company v. Anthony J. Perlermino*, 3:09-cv-1787(WWE), Memorandum of Decision, at 8 (D. Conn., May 6, 2011) (“[I]nterconnection under section 251(c) includes the duties to provide indirect interconnection and to provide transit service.”).

this statutory requirement and make clear that incumbent LECs are required to provide transit services to telecommunications carriers at TELRIC rates pursuant to section 252(d) of the Act.<sup>11</sup>

## **II. IP-TO-IP VOICE INTERCONNECTION**

In the further notice portion of the *CAF Order* the Commission expressed its interest in facilitating IP-to-IP voice interconnection.<sup>12</sup> To do so, the Commission should affirm that the interconnection provisions of section 251 of the Act afford telecommunications carriers the right to establish IP-to-IP voice interconnection with an incumbent LEC network for the provision of telephone exchange service and exchange access.<sup>13</sup>

The Telecommunications Act of 1996 in general, and section 251 of the Act in particular, were meant to address the difficulties of competitors in providing voice telephony service in a marketplace where incumbent LECs were monopolists with ubiquitous facilities and 100 percent market share. The structure of section 251 reflects this, providing a cascading level of obligations based on the specific type of carrier. All telecommunications carriers<sup>14</sup> have a general obligation under section 251(a) to interconnect with other carriers, either directly or indirectly. Section 251(b) includes more specific obligations on local exchange carriers<sup>15</sup> which are designed to facilitate the relationship between competing LECs. The most stringent requirements, including the duty to directly interconnect for purposes of telephone exchange and exchange access traffic, are reserved for the incumbent LECs<sup>16</sup> in section 251(c) and are

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<sup>11</sup> 47 U.S.C. § 252(d).

<sup>12</sup> *CAF Order* at ¶ 1335.

<sup>13</sup> 47 U.S.C. § 251(c)(2).

<sup>14</sup> A “telecommunications carrier” is defined as “any provider of telecommunications services.” 47 U.S.C. § 153(51).

<sup>15</sup> A “local exchange carrier” is “any person that is engaged in the provision of telephone exchange service or exchange access.” 47 U.S.C. § 153(32).

specifically intended to neutralize some of the advantages they otherwise would have by virtue of their ubiquitous networks and former monopoly status.<sup>17</sup>

Regulation of network interconnection among telecommunications carriers pursuant to these statutory provisions has been a critical foundation for the development of voice competition.<sup>18</sup> To ensure that this competition continues as voice traffic transitions from TDM to IP format, the Commission should affirm that carriers exchanging telecommunications traffic have the right to direct IP-to-IP voice interconnection with incumbent LECs under section 251(c)(2) of the Act for the transmission and routing of telephone exchange service and exchange access. Section 251(c)(2) of the Act requires incumbent LECs to permit such interconnection where it is technically feasible, and contains neither an exclusion for IP-based technology nor a mandate for the use of TDM-based technology.<sup>19</sup>

Today, incumbent LECs require that VoIP traffic be converted into TDM format as a condition of interconnection. As TWTC noted in its recent petition for declaratory ruling, “[c]onverting IP voice traffic to TDM format solely for the purpose of handing traffic off at an interconnection point imposes significant inefficiencies on TWTC and other providers that transmit voice in IP format because such providers must incur the equipment and labor costs

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<sup>16</sup> An “incumbent local exchange carrier” is, “with respect to an area, the local exchange carrier that—(A) on the date of enactment of the Telecommunications Act of 1996, provided telephone exchange service in such area; and (B)(i) on such date of enactment, was deemed to be a member of the exchange carrier association pursuant to section 69.601(b) of the Commission’s regulations (47 C.F.R. 69.601(b)); or (ii) is a person or entity that, on or after such date of enactment, became a successor or assign of a member described in clause (i).” 47 U.S.C. § 251(h)(1).

<sup>17</sup> 47 U.S.C. § 251. The Commission based its decision not to adopt a competitively neutral method for disbursing high-cost support to wireline providers in part on the continued ubiquity of incumbent LEC voice facilities. *CAF Order* at ¶ 175 (“[W]e will generally be offering support for areas where the incumbent LEC is likely to have the only wireline facilities”).

<sup>18</sup> The Commission’s definition of interconnected VoIP service makes clear that the Commission intends these services to interconnect with incumbent LECs and other carriers to allow consumers to make calls to and receive calls from the PSTN. 47 C.F.R. § 9.3.

<sup>19</sup> 47 U.S.C. § 251(c)(2).

associated with the conversion.”<sup>20</sup> By requiring the conversion of VoIP traffic to TDM before traffic is exchanged, incumbent LECs are able to impose additional costs on their competitors and therefore have an incentive to refuse requests for direct IP-to-IP voice interconnection. The Commission can address this concern and promote the transition to IP technology by placing responsibility for the cost of TDM-IP conversion on those TDM-based incumbent LECs that have also deployed an IP network and yet continue to require TDM-based interconnection.<sup>21</sup>

In addressing these issues, the Commission should make absolutely clear that any rights and obligations it establishes are limited to the entities and services covered by section 251 and do not extend to broadband ISPs or backbone providers. The Internet differs dramatically from the voice telecommunications service network and market, which gave rise to Congress’s creation of section 251. The voice marketplace was a monopoly and efficient options did not exist for competitors to enter that market other than through mandatory interconnection with incumbent LECs. The Internet, on the other hand, consists of a web of networks owned and operated by a multitude of entities, providing myriad ways for traffic to traverse the Internet. Given this, there is no need for regulatory intervention, and therefore “the Commission historically has not regulated interconnection among Internet backbone providers.”<sup>22</sup> The Commission correctly stated that “[i]t is important that any IP-to-IP interconnection policy framework adopted by the Commission be narrowly tailored to avoid intervention in areas where the marketplace will operate efficiently.”<sup>23</sup> Therefore, the Commission should make clear that the IP-to-IP interconnection requirements do not extend to non-voice traffic, and are limited to

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<sup>20</sup> Petition for Declaratory Ruling of tw telecom inc., WC Docket No. 11-119, at 6 (June 30, 2011).

<sup>21</sup> *CAF Order* at ¶ 1341.

<sup>22</sup> *Id.* at ¶ 1347.

<sup>23</sup> *Id.* at ¶ 1344.

the rights and obligations set forth for telecommunications carriers, LECs, and incumbent LECs pursuant to section 251 of the Act.

### **III. IT IS PREMATURE FOR THE COMMISSION TO DECIDE ON DEFAULT INTERCONNECTION POINTS TO APPLY WHEN BILL AND KEEP IS FULLY IMPLEMENTED**

As the Commission notes in the further notice portion of the *CAF Order*, defining the network edge may be an important part of a bill and keep regime, as the edge identifies the point at which a carrier is responsible for delivering traffic.<sup>24</sup> The Commission also seeks comment on the need for new or revised point of interconnection (POI) rules in a bill and keep regime.<sup>25</sup> Specifically, the Commission notes that it has interpreted section 251(c)(2)(B) of the Act as requiring an incumbent LEC to allow competitive LECs to interconnect at a single POI per Local Access and Transport Area (LATA).<sup>26</sup> The Commission seeks comment on adopting a default POI to apply for compensation purposes under a bill and keep regime when there is no negotiated agreement between the parties.<sup>27</sup>

As the transition to bill and keep occurs over the next five to eight years, the Commission should seek input from all interested parties and closely examine the options for addressing any necessary changes for efficient and workable network edges and POIs. Also during that timeframe carriers will be entering into agreements for exchanging traffic and these agreements may provide valuable insight as to the requirement for any alternative network edges and POIs. During the transition, however, the Commission should not impose new or different

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<sup>24</sup> *Id.* at ¶ 1320.

<sup>25</sup> *Id.* at ¶¶ 1316-19.

<sup>26</sup> *Id.* at ¶ 1316; 47 U.S.C. § 251(c)(2)(B).

<sup>27</sup> *CAF Order* at ¶ 1318.

requirements on carriers. These changes would impose unnecessary costs during a transitional period.

#### **IV. THE COMMISSION SHOULD ELIMINATE INTERCARRIER COMPENSATION SUPPORT FOR INCUMBENT LECS AS SOON AS POSSIBLE**

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As NCTA argued in its prior comments, access replacement support should not be provided to incumbent LECs simply because they have in the past received support or implicit subsidies through above-cost access charges.<sup>28</sup> Yet that is precisely the basis for allowing incumbent LECs to receive revenue from assessing access replacement charges (ARCs) on end users and CAF ICC support from the Universal Service Fund. These funding sources should be eliminated as soon as possible.

The Commission asks whether CAF ICC support to a price cap incumbent LEC should terminate once that incumbent LEC receives state-wide CAF Phase II support.<sup>29</sup> The answer is yes, a price cap incumbent LEC that is receiving the full amount of explicit support necessary to serve all of its eligible locations within a state should not be receiving additional CAF ICC support. This support would over-compensate the price cap LEC and would constitute waste of universal service funds. CAF ICC support should terminate immediately to any price cap incumbent LEC that receives state-wide CAF Phase II support. Similarly, price cap incumbent LECs should no longer be able to assess ARCs once they receive CAF Phase II support.

#### **CONCLUSION**

The Commission has taken tremendous strides in its efforts to reform intercarrier compensation. While it is important to embrace technological advances, such as the use of IP format for the transmission of voice traffic, the Commission must retain the statutory and

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<sup>28</sup> NCTA August 24, 2011 Comments at 21.

<sup>29</sup> *CAF Order* at ¶ 1328.

regulatory safeguards that have enabled the advent of voice competition. The Commission should also examine and learn from parties' negotiated agreements to assess the need for changes to network edges and POIs under the bill and keep regime.

Respectfully submitted,

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February 24, 2012