Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
	)	

COMMENTS OF VERIZON

William H. Johnson
Of Counsel

Curtis L. Groves
Verizon
1300 I Street NW
Suite 500-East
Washington, DC 20005
(202) 515-2179

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The Commission should complete the transition to bill and keep. It has been almost six years since the Commission concluded in the *Transformation Order* that bill and keep would be the "ultimate end state for all telecommunications traffic exchanged with a LEC."[2] The Commission has almost fully implemented the initial transition that it adopted in 2011, and it now asks parties to refresh the record on several issues the *Transformation Order* left open.[3] The Commission should rapidly transition the remaining access elements—originating access rates and those transport rates the initial transition did not cover—to bill and keep. It also should adopt measures to address immediately the most prevalent forms of transport arbitrage. Once the Commission has taken those steps, it should seek additional comment on defining the "network edge"—the point where bill-and-keep applies—and the framework for transit services.

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[1] The Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc.

[2] *Connect America Fund*, *et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17,663, ¶ 34 (2011) ("*Transformation Order*").

I. The Commission Should Complete the Transition to Bill and Keep.

The Commission should adopt a schedule for rapidly transitioning all originating access rates and transport rates to bill and keep. The initial transition plan the Commission adopted in the *Transformation Order* only addressed terminating end office charges and some terminating transport charges.[4] But the Commission made clear that bill and keep is the "end state for all intercarrier compensation traffic,"[5] including originating access charges and the remaining terminating transport charges.

In 2011 the Commission found that the legal framework underpinning the *Transformation Order* and the bill and keep regime it adopted was "inconsistent with the permanent retention of originating access charges."[6] It determined then to eliminate originating access charges once the transition to the new intercarrier compensation regime was complete.[7] The Commission sought comment on the appropriate transition and recovery mechanism for originating access, but it has yet to adopt a plan. Recently, the Commission invited parties to refresh the record regarding 8YY originating access reform.[8]

Similarly, the Commission concluded that the *Transformation Order* required transport rates to transition to bill-and-keep.[9] Under the *Transformation Order*'s initial transition plan,

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[3] *Parties Asked to Refresh the Record on Intercarrier Compensation Reform Related to the Network Edge, Tandem Switching and Transport, and Transit*, Public Notice, 32 FCC Rcd 6856 (2017) ("*Transport Public Notice*").

[4] *Transformation Order*, ¶ 744.

[5] *Id.* ¶ 741.

[6] *Id.* ¶ 817.

[7] *Id.* ¶ 1298.

[8] *Parties Asked to Refresh the Record Regarding 8YY Access Charge Reform*, Public Notice, 32 FCC Rcd 5117 (2017) ("*8YY Public Notice*").

[9] *Transformation Order* ¶ 1307.

only some transport rates are moving to bill-and-keep (tandem switching and transport for calls that terminate via a tandem owned by the terminating LEC). The remaining transport rates, including originating transport rates, rate of return LEC terminating transport rates, and price cap LEC terminating transport rates for calls other than those through a tandem owned by the terminating LEC, remain at 2011 levels. In the *Transport Public Notice*, the Commission now invites parties to refresh the record on the "adopted mandate to move all traffic to bill and keep,"[10] including steps "to transition the remaining elements associated with tandem switching to bill and keep."[11]

Like the transition of originating access rates to bill-and-keep, Commission action to transition the remaining transport rates to bill-and-keep is long overdue. The Commission has not acted in the six years since it adopted the *Transformation Order* even though it acknowledged in 2011 that failure to act "promptly" "could perpetuate inefficiencies, delay the deployment of IP networks and IP-to-IP interconnection, and maintain opportunities for arbitrage."[12]

The Commission's concerns about the harms resulting from delay were well founded. As we explained in our comments on the *8YY Public Notice*, the delayed elimination of originating access charges has allowed 8YY-based arbitrage schemes to proliferate, including traffic pumping involving sham 8YY calls.[13] We have urged the Commission to take immediate action to eliminate tariffed charges associated with 8YY traffic.[14]

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[10] *Transport Public Notice*, at 1.

[11] *Id*. at 2.

[12] *Transformation Order* ¶ 1297.

[13] Verizon Comments, WC Docket Nos. 10-90 & 07-135; CC Docket No. 01-92, at 3-4 (filed July 31, 2017).

[14] *Id*. at 5.

Arbitrageurs are also exploiting the transport rates not included in the initial transition. High transport charges continue to sustain "regulatory arbitrage such as access stimulation"[15] despite the *Transformation Order*'s attempt to curtail traffic pumping. In addition, "mileage pumping"—which occurs when "service providers designate distant points of interconnection to inflate the mileage used to compute the transport charges"[16]—remains a widespread and growing practice.

The delay in reforming originating access rates and per-minute transport rates has slowed the transition to IP-based interconnection. As the Commission in 2011 predicted, revenue from high per-minute transport rates gives LECs an incentive to retain a TDM network architecture and can serve as a disincentive to establishing more efficient interconnection arrangements.[17] In our experience, some companies refuse to negotiate more efficient interconnection arrangements, such as direct connections or IP-based interconnections, because they do not want to lose tandem switching and transport revenues.

There is no reason to revisit the adoption of a bill-and-keep end state, and no reason to delay further the transition of the remaining rate elements to that end state. In 2011, some parties argued that the Commission should defer originating access and transport reform until the Commission was able to evaluate the results of the initial transition.[18] Now that six years have passed since the adoption of the *Transformation Order*, the evidence confirms the success of

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[15] *Transformation Order* ¶ 820.

[16] *Id.*

[17] *Id.*

[18] *See*, *e.g.*, Comments of NECA, NTCA, *et al.*, WC Docket No. 10-90, at 11-12 (filed Feb. 24, 2012).

bill-and-keep.[19] For the rate elements it covered, the *Transformation Order*'s initial transition plan largely eliminated arbitrage schemes and market distortions. As a result, the intercarrier disputes that had placed such significant burdens on carriers, the Commission, and state regulators have sharply declined.

To complete the transition to the bill-and-keep end state, the Commission should act now to adopt a plan that rapidly transitions the rates for originating access and the remaining rates for transport provided by the terminating LEC to bill-and-keep. In particular, to reach the end state for all rate elements "as soon as practicable"[20] while avoiding flash cuts in intercarrier compensation rates,[21] the Commission should adopt a transition period no longer than two years for moving 8YY originating access rates and the remaining rates for transport provided by the terminating LEC to bill-and-keep.

II. The Commission Should Adopt Targeted Measures To Address Transport Arbitrage.

The Commission also should adopt several targeted measures to address immediately the most prevalent forms of transport arbitrage. The Commission should adopt the targeted measures outlined below even if it delays further the general transition of originating access and transport to bill and keep.

Transport arbitrage schemes rely on two factors. First, many transport rates—those not included in the initial transition—are still well above incremental cost. As the Commission found

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[19] *See Transformation Order* ¶ 749.

[20] *Id.* ¶ 1297.

[21] *Id.* ¶ 809.

in the *Transformation Order*, rates above incremental cost are the primary enabler of arbitrage.[22] Under the Commission's rules, CLECs typically benchmark their rates to the prevailing ILEC rate. But to maximize the margin above incremental cost, some CLECs seek to benchmark to a high-priced incumbent LEC or inflate the transport mileage that they use to calculate billed charges.

The second element of an arbitrage scheme is structuring the call flow to restrict interexchange carriers' ability to avoid unreasonable transport charges. For originating 8YY transport and tandem switching, the interexchange carrier cannot select the LEC that delivers the traffic.[23] For terminating transport and tandem switching, the terminating LEC designates a tandem in the Local Exchange Routing Guide (LERG) that directs traffic to its high-priced transport route. Then, the terminating LEC restricts interexchange carriers from using more efficient transport options by refusing direct connections or refusing to provide dedicated transport on reasonable terms. As a result, arbitrageurs force interexchange carriers to send their traffic over these high-priced routes.

A. The Commission Should Address Transport-Based Access Stimulation.

It is time for the Commission should end access stimulation once and for all. As the Commission explained in the *Transformation Order*, access stimulation "imposes undue costs on consumers, inefficiently diverting capital away from more productive uses such as broadband deployment."[24] To address the "adverse effects of access stimulation," the *Transformation*

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[22] *Id.* ¶ 752. The Commission also said in the *Transformation Order* that "[o]ur conclusion that the incremental cost of call termination is very nearly zero, coupled with the difficulty of appropriately setting an efficient, positive intercarrier compensation charge, further supports our adoption of bill-and-keep." *Id.* ¶ 753.

[23] *Id.* ¶ 1303.

[24] *Id.* ¶ 663

Order prohibited CLECs engaged in access stimulation from pricing their services above the tariffed rates of the "the price cap LEC with the lowest switched access rates in the state."[25]

Because price cap LEC end office rates transitioned to bill and keep on July 1, 2017, terminating access stimulation schemes, such as adult chat lines, now rely solely on transport rates. Yet, some carriers continue to bill billions of access stimulation minutes every year. They exploit the per-minute per-mile transport rate structure by applying the benchmark transport rates to excessive transport mileage. For example, one traffic pumping CLEC has inflated its billed transport miles by structuring its operations to use an inefficient 192-mile transport route in South Dakota. By billing for excessive mileage, and stimulating additional growth in demand, these carriers have been able to continue traffic pumping six years after the Commission said that it was acting to "curtail" a practice that "cost consumers hundreds of millions of dollars annually."[26]

The companies engaged in access stimulation use a variety of tactics to prevent interexchange carriers from avoiding their excessive charges. At the high volumes that access stimulators generate, flat-rated dedicated transport would be far more efficient than per-minute per-mile tandem-switched transport. But access stimulators generally refuse to offer dedicated transport at all or refuse to offer such dedicated transport on reasonable terms. In some cases, access stimulators subtend a "Centralized Equal Access" (CEA) provider that claims an exclusive right to all terminating traffic. The forced routing through the CEA provider layers high per-minute tandem switching charges on top of the excessive mileage charges billed by the access stimulating carriers, further exacerbating the consumer harms caused by traffic pumping.

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[25] 47 C.F.R. § 61.26(g)(1).

[26] *Transformation Order* ¶ 649.

The Commission should act immediately to reduce transport rates to bill and keep for carriers engaged in access stimulation. These carriers are typically CLECs, and they are relatively few in number. The access stimulation "business model" is inconsistent with the bill and keep end state that the Commission adopted in the *Transformation Order*. As the Commission explained, a bill and keep regime fosters market discipline because it forces carriers to recover costs from their customers, not from other carriers.[27] There is no clearer example of a customer that should bear the entire cost of LEC services than the chat lines and conference services that continue to drive terminating access stimulation traffic.

There is no reason for the Commission to give access stimulators an additional transition period. The *Transformation Order* put access stimulators on notice that comprehensive reform would "address remaining incentives to engage in access stimulation."[28] LECs engaged in access stimulation have already exploited a long transition period—six years—during which they have continued to engage in an arbitrage scheme that is fundamentally inconsistent with the Commission's bill and keep regime. The Commission should act now to put an end to transport-based access stimulation by immediately transitioning access stimulators' transport rates to the bill and keep end state.

B. The Commission Should Cap Tandem-Switched Transport Mileage.

As a first step towards the reform of transport rates, the Commission should cap the usage-sensitive transport miles that a LEC may bill. The current rules, which exclude certain tandem-switched transport rates from the initial transition and allow a distance-based (per-

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[27] *Id.* ¶ 742.

[28] *Id.* ¶ 672.

minute per-mile) rate structure for tandem-switched transport, create significant incentives for LECs to increase their access revenues by inflating billed transport miles.

To increase transport miles, rural incumbent LECs have moved their point of interconnection with a CEA provider[29] or shifted transport routes from a nearby price cap LEC tandem to a distant tandem operated by the rural LEC itself or a provider with which the rural LEC has a business relationship. In Wyoming, for example, one LEC bills Verizon for 239 miles of transport to a tandem in Casper, even though there are several tandems closer than the Casper tandem. Similarly, CLECs—especially CLECs engaged in access stimulation—are billing transport for long and inefficient routes to a distant tandem rather than shorter routes to a closer tandem.

Although the Commission has already found these mileage pumping schemes are an unreasonable practice that violates section 201(b) of the Act,[30] mileage pumping continues to be the basis of intercarrier disputes. To curtail incentives for mileage pumping until transport rates have transitioned to bill-and-keep and limit mileage-related disputes during the transition, the Commission should adopt clear interim rules to limit the tandem-switched transport mileage that LECs may bill. Specifically, the Commission should adopt an interim rule that caps incumbent LECs' billed tandem-switched transport mileage at the distance to the closest incumbent LEC tandem[31] and caps CLECs' billed transport mileage at 10 miles, modeled on the mileage cap in

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[29] *See AT&T Corp.* v. *Alpine Communications LLC*, Memorandum Opinion and Order, 27 FCC Rcd 11,511 (2012) ("*Alpine Order*").

[30] *Alpine Order*, ¶¶ 1, 39-48.

[31] This rule would only govern transport pricing, not actual call routing.

Level 3's access tariff.[32] This rule would ensure that billed mileage approximates the mileage that would apply if the interexchange carrier could select the most efficient transport routing. For CLECs, a mileage cap is also reasonable because the incumbent LEC transport rates to which CLECs are benchmarked reflect incumbent LEC network architectures, which have relatively short transport routes between the tandem and subtending end offices.

C. The Commission Should Eliminate 8YY Tandem Transport Arbitrage.

The Commission also should address arbitrage associated with some carriers' aggregation of 8YY traffic. In this form of arbitrage, a CLEC aggregates 8YY traffic from VoIP providers, wireless carriers, and other LECs across a wide area. It hands the traffic off to IXCs in the territory of an incumbent LEC with high access rates, and it bills the IXCs for originating tandem switching and database queries and, in some cases, transport mileage, transport termination, multiplexing, and end office switching as well. Rather than benchmark its rates to the rates tariffed by the incumbent LEC in the area where the call originated, the CLEC bills the higher rates tariffed by the incumbent LEC in the area where the call is handed off to the IXC.

8YY transport arbitrage violates the CLEC benchmark rule, which requires CLECs to benchmark their rates to "the incumbent local exchange carrier . . . that would provide interstate exchange access services, in whole or in part, to the extent those services were not provided by the CLEC."[33] On an 8YY call, the incumbent LEC that would provide any originating tandem switching or transport services "to the extent those services [are] not provided by the CLEC"[34] is

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[32] Level 3 Communications, LLC, Tariff F.C.C. No. 4, § 4.2.9.2.3.1 ("Notwithstanding the foregoing, the total mileage from a Company tandem to a subtending end office shall be capped at ten (10) miles irrespective of actual airline miles.").

[33] 47 CFR § 61.26(a)(2), (b)(1).

[34] *Id*.

the incumbent LEC where the call originates. The CLEC benchmark rule thus requires CLECs engaged in 8YY traffic aggregation to benchmark to the rates of the incumbent LEC where the call originated, not to the incumbent LEC where the CLEC hands off the call to the IXC.

Although the CLEC benchmark rule prohibits 8YY aggregation arbitrage, the high volume of 8YY traffic and high originating tandem and transport rates create significant incentives to engage in such schemes. The high rates also create incentives to generate fraudulent 8YY calls using auto dialers and robocallers.

To curtail arbitrage and limit disputes during the general transition of all 8YY access charges to bill-and-keep, the Commission should adopt a targeted rule to eliminate immediately a subset of 8YY charges—tandem switching and transport charges on aggregated 8YY calls. At a minimum, the Commission should cap tandem switching and transport charges on aggregated 8YY calls at a low uniform national rate, to reduce the incentives to route 8YY calls to higher-priced incumbent LEC areas.

III. Edge Rules Should Be Fair And Symmetrical.

When the Commission adopts a plan for transitioning originating access elements and the remaining transport elements to bill-and-keep, it should seek additional comment on the "network edge" rules for purposes of intercarrier compensation.[35] The Commission should also seek additional comment on the regulatory treatment of transit services and functionally equivalent tandem switching and transport services (for calls in which the sending carrier is indirectly interconnected to the terminating carrier via a third-party provider).[36]

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[35] *See Transport Public Notice* at 1.

[36] *See id.* at 3. Although the term "transit" today refers to a call flow in which two carriers are indirectly interconnected for the exchange of non-access tariff, transit is the "functional equivalent of tandem switching and transport" for access traffic. *Transformation Order* ¶ 1311.

The *Transformation Order* includes only a very limited discussion of the "network edge" concept, simply defining the edge as "the point where bill-and-keep applies"[37] and asking for additional comment. Prior edge proposals have contemplated that the edge "could be 'the location of the called party's end office, mobile switching center (MSC), point of presence, media gateway, or trunking media gateway.'"[38] An edge could also be located at a tandem. Although the *Transformation Order* did not formally define edges, the rules adopted in the *Transformation Order* extend bill-and-keep to the tandem when the terminating price cap LEC owns the tandem.[39]

Prior proposals for defining the edge typically provide that the sending carrier is financially responsible for delivering its traffic to the terminating carrier's edge. The sending carrier can deliver traffic directly or indirectly, via a third-party provider of transit services.[40]

The Commission should ensure that the edge framework that it adopts is fair. Today, some intercarrier arrangements are asymmetric. For example, an over-the-top VoIP provider or its CLEC partner can readily connect directly to a price cap LEC tandem, at which point bill-and-keep applies (as of July 1, 2018). In that case, the VoIP provider and its CLEC partner incur no per-minute charges to terminate traffic to the price cap LEC. By contrast, per-minute charges may apply to traffic terminated to a VoIP provider through its CLEC partner. VoIP providers and their CLEC partners sometimes insist that the sending carrier interconnect indirectly via a third-party tandem provider. In that case, even though CLEC end office rates are at bill-and-keep, the

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[37] *Id*. ¶ 1320.

[38] *Id.* (internal citation omitted).

[39] *See* 47 C.F.R. § 51.907(h).

[40] *Transformation Order* ¶ 1320. (A carrier is "responsible for carrying, directly or indirectly by paying another provider, its traffic to [the terminating carrier's] edge.").

sending carrier incurs per-minute charges for tandem switching (billed by the tandem provider) and may also incur per-minute per-mile charges for transport (billed by the CLEC). This asymmetric result in which one party pays per-minute charges to terminate a call and the other does not is inconsistent with a bill-and-keep regime.

The Commission should design the edge rules so that terminating carriers that insist on indirect interconnection are financially responsible for the cost of transit service. For example, the Commission could adopt rules modeled on AT&T's 2012 edge proposal, which provides that a terminating carrier that insists on indirect interconnection is deemed to have designated an "alternative edge" at the facilities of the transit provider.[41] Consequently, under AT&T's proposal the sending carrier only bears the financial obligation to deliver traffic to the facilities of the transit provider; the terminating carrier, not the sending carrier, is responsible for the costs of the transit service.

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The Commission should adopt a plan to rapidly transition originating access rates and all remaining transport rates to the bill and keep end state, and should also act immediately to address the most prevalent forms of transport arbitrage.

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[41] AT&T Comments, WC Docket No. 10-90, Appendix A at 4, § 3(c)(iii) (filed Feb. 24, 2012).

Respectfully submitted,

By: /s/ Curtis L. Groves

William H. Johnson
Of Counsel

Curtis L. Groves
Verizon
1300 I Street NW
Suite 500-East
Washington, DC 20005
(202) 515-2179

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