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## Executive Summary

As the next step in its implementation of the TRACED Act, the Commission should promote STIR/SHAKEN across all voice networks (and by extension further the IP transition as well) by facilitating IP interconnection arrangements. The TRACED is an unambiguous directive for widespread caller ID authentication, and contemplates that those with non-IP facilities will upgrade to IP or implement a non-IP solution once one has been developed. Doing nothing is not an option in the face of a congressional directive for caller ID authentication. In the first instance, NTCA supports the path that facilitates migration to IP interconnection arrangements and end-to-end transmission of all voice calls in IP. This is the most direct path toward bringing the benefits of STIR/SHAKEN to millions of consumers, and would mark an important step in the ongoing IP transition.

Making the choice discussed above now is important, because three years after being signed into law, the TRACED Act's unambiguous directive for caller ID authentication across all voice networks is far from complete – the persistent presence of non-IP facilities prevents even the most modern IP networks from authenticating and verifying calls and bringing the consumer protection benefits of authentication to all consumers. For RLECs (and likely many other similarly situated operators), the non-IP barrier to successful caller ID authentication exists not in their own networks but rather in TDM interconnection arrangements – specifically at TDM tandems owned and operated by providers that do not offer IP interconnection at these locations. As a result, RLECs and others may need to turn to the non-IP STIR/SHAKEN standards that offer the only practical means otherwise of overcoming this barrier to successful caller ID authentication. To be clear, RLECs would prefer to avoid this path – as most have modern IP networks, investing in a solution to work around other operators' non-IP facilities is hardly the

optimal choice. Yet if there is no other means to implement authentication – beyond incurring substantial new interconnection and transport costs atop the costs of STIR/SHAKEN implementation due to *others'* refusal to upgrade *their* networks – RLECs will choose the non-IP standards path.

The non-IP standards referenced in the NOI meet the “reasonably available” test the Commission set forth over two years ago. The Commission should not allow “stalling” tactics to keep effective caller ID authentication out of the reach of millions of consumers trapped on the far end of non-IP facilities – any assertions in the record that the published non-IP standards are not viable should be viewed with extreme skepticism and represent little more than efforts to evade upgrades of these facilities.

That said, returning to IP interconnection, Commission action to facilitate such arrangements could allow it to mitigate the need for a non-IP mandate and thereby fulfill its duty to promote widespread caller ID authentication. The Commission can do this via a simple “network edge” rule that would operate as a default apportionment of costs among operators. While calls may route through a variety of IP-enabled interconnects (or to multiple points) to reach their destination, a RLEC would not be financially responsible as a matter of *cost* for more than it bears today in routing such calls through existing TDM-based interconnections with other voice service providers. This would merely preserve existing well-known and well-defined constructs, and those operators with whom RLECs exchange traffic at tandems today would likely take advantage of the regulatory certainty this provision would produce and be more likely to offer IP interconnection where they have not before/upgrade to IP. Because this would be a default rule, parties mutually agreeing instead to exchange voice traffic in IP pursuant negotiated arrangements would be free to do so.

The Commission can also facilitate the IP transition and greater IP traffic exchange by easing regulatory burdens that serve as a barrier to retiring non-IP facilities. For example, to the extent that the Commission’s rules implementing Section 214 of the Communications Act of 1934, as amended, preclude or even discourage any party from retiring its non-IP facilities and migrating to an IP-enabled network instead, the Commission should enact targeted relief to address this concern. This must be pro-consumer as well, and not be done in a way that enables the foisting of new transport and transit costs onto smaller providers.

The Commission has a statutory duty to take steps to encourage and facilitate the IP transition and protect consumers. If those pushing back against the use of non-IP standards are at the same time unwilling to accept some basic default “rules of the road” to move the IP transition forward (and obtain the TRACED Act call for full nationwide based STIR/SHAKEN), their motivations are telling and their complaints should be dismissed.



a path forward with respect to promoting the ongoing IP transition and overcoming this persistent impediment to comprehensive caller ID authentication.

## **II. RLECS' ABILITY TO IMPLEMENT CALLER ID AUTHENTICATION FOR THE BENEFIT OF THEIR RURAL COMMUNITIES IS STYMIED BY UPSTREAM OPERATORS' NON-IP FACILITIES.**

In the TRACED Act, Congress set forth an unambiguous directive for caller ID authentication across all voice networks and for the benefit of consumers in rural and urban communities alike plagued by “spoofed” robocalls. Nothing in the TRACED Act indicates any policy preference from Congress for letting non-IP facilities stand in the way of any consumer’s access to critical STIR/SHAKEN protocols. Despite steps to implement the TRACED Act since 2019,<sup>4</sup> the persistent presence of non-IP facilities in networks all across the nation remains a barrier to more widespread call authentication, and this NOI represents a welcome review of how best to address it.<sup>5</sup>

### **A. Non-IP facilities operated by other providers stand in the path of RLECs leveraging modern IP networks to authenticate/verify voice traffic successfully.**

As background – and specifically with respect to addressing whether the “non-IP” barrier is hindering widespread use of caller ID authentication – it is important to note that

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<sup>4</sup> See, e.g., *Call Authentication Trust Anchor*, WC Docket No. 17-97, Implementation of TRACED Act Section 6(a) — Knowledge of Customers by Entities with Access to Numbering Resources, WC Docket No. 20-67, Report and Order and Further Notice of Proposed Rulemaking, FCC 20-42 (rel. Mar. 31, 2020) (“*First Call Authentication Report and Order*”); *Call Authentication Trust Anchor*, WC Docket No. 17-97, Second Report and Order, FCC 20-136 (rel. Oct. 1, 2020) (“*Second Caller ID Authentication Report and Order*”).

<sup>5</sup> NOI, ¶ 1 (“Today, we continue our efforts to protect Americans from illegally spoofed robocalls by launching a broad inquiry on caller ID authentication for non-Internet Protocol (IP) networks.”).



RLECs have long been active participants in the IP transition.<sup>6</sup> Most relevant to the instant proceeding, NTCA member survey data indicates that more than 90 percent of the association’s members have IP switching facilities within their networks today that could be used to generate STIR/SHAKEN caller ID authentication data.<sup>7</sup> To be clear, enabling STIR/SHAKEN functionality within existing IP networks is no simple or inexpensive “plug and play” undertaking for any network operator, much less for small entities serving costly-to-serve and sparsely-populated rural areas. For example, hardware and software functionality must be obtained and installed at significant expense (which cannot be recovered directly from end-users)<sup>8</sup> to make these IP facilities STIR/SHAKEN capable.<sup>9</sup> Yet, even as RLECs must undertake these costs to protect their subscribers (and have been hard at work to meet the June 2023 deadline),<sup>10</sup> many face the prospect of being unable to leverage such investments in their modern IP networks to authenticate calls. Instead, these operators unfortunately face an

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<sup>6</sup> NTCA has long advocated, at the behest of its members, for a smart regulation approach to promoting and sustaining the ongoing IP transition. *See* NTCA Petition for Rulemaking (fil. Nov. 19, 2012) (seeking to initiate a “smart regulation” approach to the IP transition).

<sup>7</sup> NTCA member survey data that found that more than 90 percent of the association’s members have IP switching facilities in their networks that could be used to generate call authentication data. Broadband/Internet Availability Survey Report, NTCA–The Rural Broadband Association, Dec. 2021, p. 4, available at: <https://www.ntca.org/sites/default/files/documents/2021-12/2021-broadband-survey-report-final-12-15-21.pdf>

<sup>8</sup> TRACED Act § (4)(b)(6) (“The Commission shall prohibit providers of voice service from adding any additional line item charges to consumer or small business customer subscribers for the effective call authentication technology required under paragraph (1).”).

<sup>9</sup> These expenses include, but are not limited to, hardware and software expenses. They are both “one-time” expenses as well as ongoing fees paid to vendors specifically for authentication services.

<sup>10</sup> *Second Caller ID Authentication Report and Order*, ¶ 40 (adopting a June 2023 implementation deadline for “small” voice service providers, defined as those with 100,000 or fewer voice subscriber lines).

“authentication to nowhere” scenario, as STIR/SHAKEN information generated for calls originated on their IP networks will disappear when handed off to other providers’ non-IP networks that often provide the connections for voice calls between rural areas and the rest of the world.<sup>11</sup>

It is critical that the Commission recognize this “authentication to nowhere” issue as more than a “regulatory compliance problem.” In other words, this is more than the mere inability to meet a requirement set forth in the agency’s rules and something that could conceivably be resolved with waivers or extensions of deadlines. *It is, rather, a real and meaningful consumer protection problem.* The absence of authentication information in the signaling of a call originated on a RLEC network will increasingly cause such calls to be unanswered, at the very least, because they appear untrustworthy. If not, they are likely to be labeled as “spam,” outright blocked at the network level by other operators, or placed on end-users’ blacklists. This is the “reverse rural call completion” scenario about which NTCA has waved flags of concern for several years,<sup>12</sup> where millions of rural consumers could see their calls ignored at best and blocked at worst due to authentication measures for those calls failing after they leave RLEC networks. Of equal concern, the persistent presence of non-IP facilities means that calls originated and successfully authenticated outside of rural areas and destined for

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<sup>11</sup> See *NOI*, ¶ 18 (“Is the presence of non-IP network technology undermining the efficacy of STIR/SHAKEN and, if so, how significantly?”).

<sup>12</sup> Comments of NTCA–The Rural Broadband Association, WC Docket No. 17-97 (fil. May 15, 2020), pp. 13-14. A decade-long fight against rural call completion problems – in which untold numbers of calls to rural consumers simply never arrived – instructs that the reliability of the telephone network cannot be taken for granted. After a decade of RLECs working to bring this problem to the attention of policymakers and searching for solutions, a mix of enforcement efforts and new and revised rules helped to give operators proper incentives to complete calls destined for rural areas – and to punish those that failed to do so. *Rural Call Completion*, WC Docket No. 13-39, Fourth Report and Order, FCC 19-23 (rel. Mar. 15, 2019).

RLEC subscribers could arrive having lost critical STIR/SHAKEN data in transit after traversing non-IP facilities. Rural recipients of these calls will continue to be victimized by spoofing, and “trust”<sup>13</sup> in the voice network will not be restored for these rural communities. These concerns can be mitigated, if not resolved, if authentication information could be passed intact, but unfortunately this is beyond the control of individual RLECs whose investments in their own networks are only effective to their own network edges. Moreover, this is not a purely RLEC issue alone – the Commission should understand that numerous, similarly situated providers all across the nation will confront these anti-consumer scenarios as well to the extent they depend upon interconnection through TDM networks owned and operated by other larger operators.<sup>14</sup>

Turning to the NOI’s inquiry on *where*<sup>15</sup> non-IP facilities present a barrier to STIR/SHAKEN implementation, the Commission should understand that the “authentication to nowhere” scenarios referenced above are primarily (at least for RLECs) the result of tandem switching facilities owned and operated by providers upstream to RLECs through which calls route for many rural markets. As significant volumes of voice traffic from or to the rural areas that RLECs serve are routed through these upstream TDM tandem switches, any call authentication information in IP format traversing such facilities is lost.

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<sup>13</sup> The STIR/SHAKEN framework is often referred to as a “trust anchor” (hence the name of this proceeding (“Call Authentication Trust Anchor”).

<sup>14</sup> See Comments of the Competitive Carriers Association, WC Docket No. 17-97, WC Docket No. 20-67 (fil. May 15, 2020) (“CCA”), p. 4 (“ Even if a carrier has upgraded its own network to all-IP technology, if the carriers exchanges substantial traffic through legacy TDM tandems, such tandems will similarly present obstacles to STIR/SHAKEN deployment.”). CCA also notes in its comments that many of its members route traffic through other operators’ TDM tandems. CCA, p. 2.

<sup>15</sup> NOI, ¶ 17 (“As an initial matter, we seek comment on non-IP network technology generally. How prevalent is non-IP network technology across the entire voice network? Are there provider types (e.g., voice service providers vs. intermediate providers), sizes, or business models where non-IP technology is used at a greater or lesser rate?”).

Unfortunately, these tandem operators have shown no interest in upgrading these facilities, and these switches do not accommodate IP interconnection. That said, larger carriers have made no secret of their desire to move instead to a handful of points of interconnection (“POIs”) around the nation in lieu of permitting IP interconnection at existing meet points.<sup>16</sup> This model, as well as additional alternatives identified by the SIP Interconnection Working Group (*see* Section II.B.2, *infra*), would upset (if not turn on its head entirely) the current apportionment of voice interconnection costs that helps to keep rates in rural areas affordable. This will turn implementation of STIR/SHAKEN and the IP transition into an opportunity to foist all costs of interconnection upon smaller providers and the customers they serve. This is because, as a general matter, most RLECs are not financially responsible today for exchanging non-local voice traffic at points outside their “network edge,” which is typically a point on the RLEC network or a long-established mutually agreed upon point of interconnection elsewhere between RLECs and other operators with whom they exchange traffic. This long-standing apportionment of costs helps ensure that RLEC subscribers’ rates for voice services remain reasonably comparable to those enjoyed by urban consumers. *If small rural providers are required, however, to establish new routes for IP interconnection with large national providers – likely requiring multiple routes to exchange calls with each larger operator – and must bear full financial responsibility for doing so, the costs of exchanging voice traffic with other operators*

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<sup>16</sup> *See* T-Mobile, *ex parte* letter, WC Docket No 18-156 (fil. Apr. 27, 2020) (proposing to “migrate from one POI per LATA to no more than a few dozen POIs for the entire country.”). *See also* AT&T, *ex parte* letter, GN Docket No. 13-5, WC Docket No. 13-97, WC Docket No. 10-90 (fil. Jan. 24, 2014) (asserting that “IP interconnection will take place on a nationwide basis, and at a relatively small number of places”); Sprint, *ex parte* letter, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51 (fil. Oct. 3, 2011) (arguing for “the more efficient regional interconnection arrangements typically used for non-voice IP traffic”).

*will increase and will, for the first time ever, need to be recovered entirely from small rural customer bases.*

Two points warrant particular emphasis in discussing interconnection obligations. First, RLECs do not seek to “recreate the TDM network.” Rather, they seek to avoid being able to implement STIR/SHAKEN for the benefit of rural consumers *only* if they agree to take on substantial new interconnection and call routing costs (largely transferred from other providers) atop the costs of implementing STIR/SHAKEN on their own networks. Commission action to facilitate greater IP traffic exchange/IP interconnection, including a simple default rule that maintains existing financial apportionment of interconnection costs in the absence of mutual agreement to change such responsibility, could avoid this scenario. Second, even as there has been a significant decline in access revenues as a result of Commission reforms enacted over a decade ago,<sup>17</sup> the discussion herein is not about these remaining revenues – indeed, precisely because of the significant decline in these revenues, this is hardly the barrier it might once arguably have been to technology transitions. Rather, the concern here is specifically about *the assumption of new costs (in the form of increased transport costs)*. Thus, the Commission should not fall for claims that this debate is “all about access charges.” Such red herrings are an attempt to distract from the material underlying economic impact of cost-transferring from some of the largest providers in the United States to smaller providers and the rural communities they serve.

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<sup>17</sup> *Connect America Fund*, WC Docket No. 10-90, et al., Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 (rel. Nov. 18, 2011) (“*USF/ICC Transformation Order*”), ¶¶ 736-846.

It would be somewhat ironic (and certainly contrary to the concept of ensuring universal service through “reasonably comparable” rates) if the Commission were to minimize or ignore altogether the potential shifting of costs at issue here. Not only would this raise universal service implications, but it would mean as well that the “late adopters” in terms of the IP transition – those who have declined and now refuse to upgrade aging switches – would reap many of the “efficiencies” of the transition at the expense of interconnecting providers. It would be particularly galling and a perverse result indeed if smaller rural operators that have leapt into the IP transition are forced to incur new costs because other larger operators who argue vociferously about the “efficiencies” of this IP transition refuse to do so for significant portions of their network and realize such “efficiencies” only by transferring many of the costs of their own transition to other providers.

**B. Neither Commission established working groups, nor industry efforts undertaken on a voluntary basis, will enable RLECs to successfully implement caller ID authentication.**

The NOI seeks comment on industry efforts to resolve the non-IP interconnect issue, including both a NANC working group effort to address the barriers that small operators face to implementing STIR/SHAKEN, as well as an industry-led effort to facilitate greater exchange of voice traffic in IP.<sup>18</sup> Neither of these are sufficient to break through the non-IP barrier the NOI seeks to address.

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<sup>18</sup> NOI, ¶ 33.

**1. The CATA Working Group confirmed that RLECs’ effective participation in the STIR/SHAKEN ecosystem turns upon Commission action to address IP interconnection.**

As it moves forward with respect to “Fill[ing] the Challenging Gap in Stir/Shaken Robocall Defenses,”<sup>19</sup> the Commission should recognize the limitations of various “solutions” identified by the CATA Working Group.<sup>20</sup> While valuable, this report only confirmed that full and effective participation in an industry-wide STIR/SHAKEN ecosystem can only be achieved if the Commission addresses IP interconnection. This is because the “solutions” highlighted are merely methods by which any carrier can implement STIR/SHAKEN *within its own network*. These are solutions in need of a problem even as they neglect the actual problem. Each of the “solutions” would only offer *alternatives* to what has already been done by RLECs and many other providers, and do nothing to address the real problem of what happens when calls are exchanged between networks. To be sure, “third-party” authentication functions offer IP transiting (*i.e.*, transport) service, or routing functionality, that bypass non-IP interconnects – but this still results yet again in the transport costs being effectively passed onto smaller providers who would be forced to procure such services because *other* providers decided not to upgrade *their* networks. In other words, whether third-party services or direct IP interconnection through new routes are used to overcome the current barriers, the economic result for the RLEC is the same. Ultimately, in either case, RLECs will absorb new transport costs that must then be

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<sup>19</sup> *FCC Seeks to Fill Challenging Gap in STIR/SHAKEN Robocall Defenses, Launches Formal Review of How to Bring Non-IP Phone Networks Into Caller ID Authentication Ecosystem to Protect Consumers*, Press Release, Federal Communications Commission (rel. Oct. 27, 2022).

<sup>20</sup> *Deployment of STIR/SHAKEN by Small Voice Service Providers*, NANC Call Authentication Trust Anchor (“CATA”) Working Group (approved by the NANC Oct. 13, 2021) (“*CATA WG Report*”), available at: [https://nanc-chair.org/docs/October\\_13\\_2021\\_CATA\\_Working\\_Group\\_Report\\_to\\_NANC.pdf](https://nanc-chair.org/docs/October_13_2021_CATA_Working_Group_Report_to_NANC.pdf).

recovered from their small customer bases – and these third-party signing services as well as the alternatives highlighted in the *CATA WG Report* place RLECs “back at square one,” unable to use their own modern IP networks to successfully authenticate calls because *other* networks were given a pass on upgrading their tandem switches to keep pace with the times.

It is critical therefore that the Commission not look to the concepts identified in the *CATA WG Report* as a panacea for the problems presented. While the report focused upon the existence of solutions for RLECs to implement STIR/SHAKEN within their own networks, lost in this discussion is that many RLECs already *are* capable of implementing these solutions or have *already implemented them* within their own networks. Performing the authentication process within an originating carrier’s network is of little to no value if the routes for delivering such traffic beyond the originating carrier’s network have not likewise been upgraded and if “alternatives” come with unrecoverable increased costs. In the end, these solutions presented by the CATA Working Group solve a problem that has already been solved in most places while neglecting to address the fundamental “authentication to nowhere” problems caused by others’ failures to invest in upgrades of antiquated switching equipment.

**2. The SIP Interconnection Working Group confirmed that, absent Commission action, RLECs cannot exchange IP voice traffic and authenticate calls without absorbing significant, new costs that would need to be passed on to small rural customer bases.**

While the *CATA WG Report* mentioned the existence of the IP interconnection barrier and the cost implications for rural operators,<sup>21</sup> and recommended as well the creation of the SIP Interconnection Working Group,<sup>22</sup> the Commission should recognize that the proposed methods

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<sup>21</sup> *Id.*, p. 5.

<sup>22</sup> *Id.* p. 15.



for IP traffic exchange identified by the latter will create significant new costs for small carriers that must be passed onto small rural customer bases. Service quality concerns exist as well and, where these can in theory be cared for, they too come with significant costs.

To be clear, NTCA and its members do not call into question the viability, technical or otherwise, of the IP voice traffic exchange/IP interconnection methods identified by the *SIP Interconnection WG Report*.<sup>23</sup> But the report confirms that, absent Commission attention to the IP interconnection issue, the current apportionment of certain costs that exist with respect to the exchange of voice traffic could be turned on its head to the detriment of rural consumers. If the Commission does not keep in place – as a default in the absence of agreement otherwise between the parties – a “network edge” concept to apportion costs of transport and interconnection between RLECs and other operators whether TDM or IP, the costs of nationwide calling scopes will be foisted onto, for the first time ever, small rural customer bases. Put another way, the *SIP Interconnection WG Report* highlights that the mere existence of *potential* options for IP voice traffic exchange does not mean that they are *effective* options. In particular, there is no assurance that the affordability or quality of voice service for rural consumers will be automatically preserved simply because IP interconnection might be in theory available.

It must be noted as well that the “bilateral” nature of the traffic exchange arrangements discussed in the *SIP Interconnection WG Report* indicate that the increased transport costs are likely not immaterial when compared to those for which RLECs are responsible today. Rather, instead of exchanging all voice traffic at a single point (the tandem) with defined logistics for routing and defined financial responsibility, RLECs will be forced to arrange for and incur

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<sup>23</sup> SIP Interconnection Working Group Report, WC Docket No. 17-97 (fil. Nov. 16, 2022) (“*SIP Interconnection WG Report*”), available at: <https://www.fcc.gov/ecfs/document/111690901497/1>

transport costs for taking traffic to multiple (if not dozens of perhaps) separate POIs around the nation, each set by the individual national or regional operators with whom they exchange traffic. Transactional costs and burdens for RLECs will increase as well, as negotiating agreements with multiple providers would seemingly become required.

While the transport costs referenced above may be avoided, to some extent, by use of the “IPVS Traffic Exchange Over the Internet” option identified in the report,<sup>24</sup> this resort to “public Internet” best efforts routing of voice traffic is likely not costless and it presents concerns from a service quality perspective. Moreover, even if service quality can in theory be cared for, this requires each provider to utilize transcoding processes to do so – even as this may be technically feasible, quality of service markers attached to voice packets in this routing scenario are not always automatically honored by both parties (as the *SIP Interconnection WG Report* acknowledges).<sup>25</sup> In addition, these transcoding measures come with a cost as well – any use of IP facilities, even if transcoding is not used, come with a cost.<sup>26</sup> Indeed, NTCA believes that most operators today typically route voice traffic over dedicated or specialized and managed connections (whether TDM or IP) precisely to ensure service quality, meaning that public Internet routing would be a clear step backward in that respect. The latter could adversely affect voice quality even while creating new costs and logistical and operational burdens.

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<sup>24</sup> *Id.*, p. 3.

<sup>25</sup> *Id.*, p. 4.

<sup>26</sup> NTCA also observes that, if service quality can be cared for here, one has to wonder why the larger operators pushing a technical standard through the IP-NNI do not see this as an option for all voice traffic, those included. Put another way, the larger operators seem to be saying, “Public internet routing is good enough for others, but we’d rather not do it for more than a ‘small volume’ of our own traffic where we can avoid it.”

Thus, even as the options discussed in the *SIP Interconnection WG Report* may be technically feasible paths to IP voice traffic exchange, the Commission cannot overlook that they come with costs and trade-offs, and it is particularly important to highlight how those could be disproportionately foisted on RLECs and their small rural customer bases in a manner not readily apparent from the report. To be clear, the *SIP Interconnection WG Report* is a valuable addition to the *CATA WG Report*, and NTCA was pleased to be a part of each effort. But it cannot be missed that the latter confirmed the gating nature of IP interconnection for purposes of effective STIR/SHAKEN implementation, while the former confirmed that crossing through these gates could come at significant expense for rural consumers.

Thus, absent Commission attention to this issue – and Commission action as discussed further in Section III. E., *infra*, – RLECs may find they are unable to leverage their modern IP networks to deliver to their subscribers the consumer protection benefits of STIR/SHAKEN and voice services that are ultimately reasonably comparable in price and quality to those experienced by urban consumers.

**III. TO COMPLY WITH THE TRACED ACT’S UNAMBIGUOUS DIRECTIVE FOR WIDESPREAD CALLER ID AUTHENTICATION ACROSS ALL VOICE NETWORKS, THE COMMISSION MUST EITHER (1) MANDATE SERVICE PROVIDERS’ USE OF “REASONABLY AVAILABLE” NON-IP STANDARDS OR (2) FACILITATE GREATER EXCHANGE OF VOICE TRAFFIC IN IP.**

- A. The TRACED is an unambiguous directive for widespread caller ID authentication, and contemplates that those with non-IP facilities will upgrade to IP or implement a non-IP solution once one has been developed.**

The TRACED Act grants neither a permanent exemption, nor even a long-term extension, from caller ID authentication for voice service providers “materially relying on non-IP” facilities. Instead, as the Commission has already stated in interpreting the TRACED Act,

that statute requires those with non-IP facilities to make a binary choice (1) upgrade those to IP or (2) develop (and then implement once developed) a call authentication solution for those non-IP facilities.<sup>27</sup> Now that two non-IP solutions have been developed, the *Second Caller ID Authentication Report and Order* requires the Commission to mandate that providers materially relying on non-IP make this choice.

While the TRACED Act granted the Commission the authority to allow for the development of a non-IP caller ID authentication solution, the statute contemplates “full participation”<sup>28</sup> by all classes of voice service providers. More specifically, as the Commission found in the *Second Caller ID Authentication Report and Order*, with respect to non-IP providers, Section 4(b)(5)(B) of the TRACED Act directs the agency to “grant a delay of required compliance with the June 30, 2021 implementation date to the extent that...a provider or class of providers of voice services, or type of voice calls, materially relies on a non-[IP]

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<sup>27</sup> *Second Caller ID Authentication Report and Order*, ¶ 24. (stating that “we interpret the TRACED Act’s requirement that a voice service provider take ‘reasonable measures’ to implement an effective caller ID authentication framework in the non-IP portions of its network as being satisfied only if the voice service provider is actively working to implement a caller ID authentication framework on those portions of its network. A voice service provider satisfies this obligation by either (1) completely upgrading its non-IP networks to IP and implementing the STIR/SHAKEN authentication framework on its entire network, or (2) working to develop a non-IP authentication solution. We adopt rules accordingly, and find that this approach best balances our goal of promoting the IP transition while simultaneously encouraging the development of a non-IP authentication solution for the benefit of those networks that cannot be speedily or easily transitioned. By adopting rules that are not overly burdensome, we leave voice service providers free to prioritize transitioning to IP, and we strongly encourage voice service providers to take advantage of this opportunity to do so.”).

<sup>28</sup> TRACED Act § 4(b)(4)(D) (“The Commission shall take reasonable measures to address any issues in an assessment under subparagraph (A)(i) and enable as promptly as reasonable full participation of all classes of providers of voice service and types of voice calls to receive the highest level of trust. Such measures shall include, without limitation, as appropriate, limiting or terminating a delay of compliance granted to a provider under subparagraph (B) if the Commission determines in such assessment that the provider is not making reasonable efforts to develop the call authentication protocol described in such subparagraph.”).

network for the provision of such service or calls *until* a call authentication protocol has been developed for calls developed over non-[IP] networks and is reasonably available.”<sup>29</sup> Thus, the TRACED Act, while recognizing that STIR/SHAKEN for non-IP networks was not possible at the time of passage,<sup>30</sup> did not contemplate a *permanent* non-IP exemption.

In turn, the Commission interpreted the TRACED Act directive for those materially relying on non-IP facilities to take “reasonable measures” to find a solution as “time-limited” and ending when one was developed. Specifically, in interpreting Section 4(b)(1)(B) of the TRACED Act, the Commission found that:

[W]e interpret the TRACED Act’s requirement that a voice service provider take ‘reasonable measures’ to implement an effective caller ID authentication framework in the non-IP portions of its network as being satisfied only if the voice service provider is actively working to *implement* a caller ID authentication framework on those portions of its network. A voice service provider satisfies this obligation by either (1) completely upgrading its non-IP networks to IP and implementing the STIR/SHAKEN authentication framework on its entire network, or (2) working to develop a non-IP authentication solution.<sup>31</sup>

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<sup>29</sup> *Second Caller ID Authentication Report and Order*, ¶ 36. (emphasis added) (internal citations and quotations marks omitted).

<sup>30</sup> *Id.*, fn. 115 (“The TRACED Act itself implies that no viable non-IP solution existed at the time of enactment because it directs us to grant an extension for voice service providers that ‘materially rel[y] on a non-[IP] network . . . until a call authentication protocol has been developed for calls delivered over non-[IP] networks and is reasonably available.’”) (citing, TRACED Act § 4(b)(5)(B)).

<sup>31</sup> *Second Caller ID Authentication Report and Order*, ¶ 24. *See also*, 47 C.F.R. § 64.6303 (stating that a voice service provider “shall either: (a) upgrade its entire network to allow for the initiation, maintenance, and termination of SIP calls and fully implement the STIR/SHAKEN framework as required in 47 CFR 64.6301 throughout its network; or (b) maintain and be ready to provide the Commission on request with documented proof that it is participating, either on its own or through a representative, including third party representatives, as a member of a working group, industry standards group, or consortium that is working to develop a non Internet Protocol caller identification authentication solution, or actively testing such a solution.”).

At the time the Commission issued this interpretation of the TRACED Act, there existed only one *draft* standard for STIR/SHAKEN over non-IP facilities.<sup>32</sup> The Commission thus enabled those materially relying on non-IP facilities to fulfill the “reasonable measures” to *implement* non-IP solutions (a requirement necessary to *keep* their *extension* in place) by “provid[ing] the Commission, upon request, with documented proof that it is participating, either on its own, in concert with a vendor, or through a representative, as a member of a working group, industry standards group, consortium, or trade association that is *working to develop a non-IP solution*, or actively testing such a solution.”<sup>33</sup> Of course, those operators were also given the option of “completely upgrading [their] non-IP networks to IP and implementing the STIR/SHAKEN authentication framework on [their] entire network.”<sup>34</sup>

Thus, more than two years ago, the Commission made clear that it expected the industry to undertake efforts to find a solution for non-IP facilities or ultimately to move to IP. One would be hard pressed to argue that the Commission used the words “delay” and “until” but actually meant to grant an exemption or even long-term extension. Rather, this language can only be read to require non-IP providers to work towards a solution and *implement* it, and that the “delay” in implementation was to last “until” one was developed and met the “reasonably available” test. Put another way, the Commission could not have intended this language to mean that the industry would develop a non-IP standard but never implement it. With *two* such

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<sup>32</sup> *Second Caller ID Authentication Report and Order*, ¶ 31.

<sup>33</sup> *Id.*, ¶ 70.

<sup>34</sup> *Id.*, ¶ 24.

standards now “reasonably available,” the Commission should, as it committed to doing so two years ago, revisit the non-IP extension.

**B. Published non-IP technical standards can enable widespread availability of caller ID authentication.**

With this clear directive for caller ID authentication across IP and non-IP networks alike, the Commission directed voice service providers that materially rely on the latter to participate in standards body efforts to develop a method to authenticate calls that traverse these facilities.<sup>35</sup> The Commission further stated that it would revisit the non-IP extension at a point when a solution meets the test of being “reasonably available,”<sup>36</sup> further defined as having been “fully developed and finalized by industry standards” and when “the underlying equipment and software necessary to implement such protocol is available on the commercial market.”<sup>37</sup> It is worth noting that this test was set forth in the *Second Caller ID Authentication Report and Order* in a paragraph entitled “Duration of Extension,” thus inarguably tying the extension for non-IP facilities only to a point at which a technical solution meets the “reasonably available” test.

As noted in the NOI, the NIPCA was formed under the auspices of ATIS<sup>38</sup> to consider a non-IP authentication standard. (NTCA has served as a member of that working group since its inception, and the group’s membership is comprised of a representative cross-section of the

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<sup>35</sup> *Id.*, ¶ 70.

<sup>36</sup> *Id.*, ¶ 68.

<sup>37</sup> *Id.* See also, *Id.*, ¶ 32 (stating that “we will consider a non-IP caller ID authentication framework to be effective only if it is: (1) fully developed and finalized by industry standards; and (2) reasonably available such that the underlying equipment and software necessary to implement such protocol is available on the commercial market. If and when we identify an effective framework, we expect to revisit our ‘reasonable measures’ requirement and **shift it from focusing on development to focusing on implementation.**”) (emphasis added).

<sup>38</sup> ATIS Launches New Non-IP Call Authentication Task Force, Press Release (May 13, 2020).

overall voice service provider and vendor community.) After more than two years of deliberations, that standards body has completed its work and published two technical standards that allow for the use of STIR/SHAKEN caller ID authentication protocols over non-IP facilities, thus meeting the “fully developed and finalized” test.<sup>39</sup> Moreover, at least one is vendor supported,<sup>40</sup> thus meeting the meeting the second prong of the “reasonably available” test.

Against this backdrop, the Commission should be skeptical of those arguing for further delay or continued work on these non-IP standards. At present, NIPCA is working on a second technical report on these two standards. Any assertions that this means additional work is needed before the Commission reconsiders the non-IP exemption are misplaced – if standards were viewed as incomplete merely because of *revisions*, this would mean that ATIS 1000074,<sup>41</sup> the very technical standard for STIR/SHAKEN authentication protocols over IP networks – the precise IP-based standard that the Commission mandated voice service providers implement over two years ago – would likewise be deemed incomplete and unavailable. To the contrary, revision and review of existing standards are entirely consistent with standards body work; such standards are frequently updated from when they are first published to when they are put into

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<sup>39</sup> See Press Release, Alliance for Telecommunications Industry Solutions (ATIS), ATIS Addresses Non-IP Call Authentication (Aug. 12, 2021), <https://www.atis.org/press-releases/atis-addresses-non-ip-call-authentication/>; See also ATIS-1000096, Out-of-Band PASSporT Transmission Involving TDM Networks (Jul. 2021); ATIS-1000095, Extending STIR/SHAKEN over TDM (Jun. 2021).

<sup>40</sup> See Out-of-Band SHAKEN with a private Call Placement Service, TransNexus (Oct. 6, 2021), available at: <https://transnexus.com/blog/2021/national-and-private-cps-for-out-of-band-shaken/>

<sup>41</sup> ATIS & SIP Forum, Joint ATIS/SIP Forum Standard—Signature-Based Handling of Asserted Information Using toKENs (SHAKEN), ATIS-1000074 (2017), [https://access.atis.org/apps/group\\_public/download.php/46770/ATIS-1000074-E.zip](https://access.atis.org/apps/group_public/download.php/46770/ATIS-1000074-E.zip) (ATIS-1000074); ATIS & SIP Forum, Errata on ATIS Standard on Signature-based Handling of Asserted information using toKENs (SHAKEN), ATIS-1000074-E (2019), [https://access.atis.org/apps/group\\_public/download.php/46536/ATIS-1000074-E.zip](https://access.atis.org/apps/group_public/download.php/46536/ATIS-1000074-E.zip) (ATIS-1000074-E).



place by operators and on an ongoing basis thereafter. The Commission should not allow “stalling” tactics to keep caller ID authentication out of the reach of millions of consumers trapped on the other end of non-IP facilities. Any assertions in the record that the published non-IP standards are not viable should therefore be viewed with skepticism.

**C. The TRACED Act compels the Commission to make a choice between caller ID authentication via non-IP standards or greater IP traffic exchange.**

While the NOI seeks comment on its legal authority with respect to mandating the adoption of non-IP caller ID authentication standards,<sup>42</sup> the Commission need only look to its existing interpretation of the TRACED Act as found in the *Second Caller ID Authentication Report and Order*. Specifically, that Order stated that those materially relying on non-IP facilities were required to undertake “reasonable measures” to authenticate calls on those networks. That obligation could be fulfilled by “actively working to ***implement*** a caller ID authentication framework” for non-IP networks. With only a draft standard in existence at the time, this obligation to *implement* a solution could be fulfilled via upgrades to IP or working to develop a non-IP solution. Now that the “development” phase is completed and two standards are published, those materially relying on non-IP can no longer invoke “working on a solution” as fulfilling their duty to “actively work[] to ***implement*** a caller ID authentication framework”<sup>43</sup> in those portions of their networks. Rather, it should be confirmed that voice service providers

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<sup>42</sup> NOI, ¶¶ 34-36. While the discussion herein has focused on “voice service providers” as defined by the *Second Caller ID Authentication Report and Order*, the Commission also has the authority to apply the non-IP mandate to intermediate providers. As the NOI correctly notes, has already invoked several sources of legal authority to apply call authentication obligations on intermediate as well as gateway providers. NOI, ¶ 35.

<sup>43</sup> *Second Caller ID Authentication Report and Order*, ¶ 24.

now have a Commission imposed duty either to upgrade their non-IP facilities or ***implement*** the non-IP call authentication standards. Any other interpretation of paragraph 24 of the *Second Caller ID Authentication Report and Order* would render the term “implement” (if not that entire paragraph) meaningless, would ignore a congressional directive for authentication across all networks, would render standards bodies somewhat pointless and, worst of all, would deny the benefits of authentication to potentially millions of consumers.

With these standards developed and ready for implementation, the Commission has a choice – one it set the table for in the *Second Caller ID Authentication Report and Order*. In short, it must require voice service providers materially relying on non-IP facilities ***either*** to “completely upgrad[e] [their] non-IP networks to IP and implement[] the STIR/SHAKEN authentication framework on [their] entire network”<sup>44</sup> ***or*** implement a non-IP solution to ensure widespread availability of this consumer protection measure.

At the time the *Second Caller ID Authentication Report and Order* was adopted, a “non-prescriptive” approach made sense because it was consistent with the TRACED Act language that recognized that a non-IP solution was not available as of the time the statute was enacted.<sup>45</sup> This approach to widespread caller ID authentication also rightly allowed the expert technical standards bodies to develop a workable protocol for non-IP networks. Indeed, the Commission has, thus far and approximately three years after its 2019 enactment, implemented the TRACED Act in a thoughtful, measured, and incremental manner, as specifically called for by the statute. For example, the *Second Caller ID Authentication Report and Order*’s provision granting

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<sup>44</sup> *Id.*

<sup>45</sup> *See*, TRACED Act 4(b)(1)(B).

smaller operators facing “undue” hardship additional time for compliance,<sup>46</sup> the requirements to adopt robocall “mitigation” plans,<sup>47</sup> and authentication for non-IP facilities were each authorized by the statute, and each account for the realities of various classes of providers, the immense expense necessary to implement STIR/SHAKEN, and the limitations of authentication standards originally developed for IP networks. The requirement to work to develop a non-IP solution was particularly measured – rather than a mandate with a strict deadline set in the hope that a standard would emerge in time, in the absence of then-available technical solutions, the Commission chose a path that allowed standards bodies sufficient time to do their important work. This work is now complete, however, and there is no rational basis to treat the “development” process as unending in nature.

**D. Prioritization of the IP transition – via steps to facilitate greater IP traffic exchange – is the optimal path forward here.**

The Commission should be skeptical of any assertions that implementation of non-IP standards will “slow down the IP transition.” If anything, it could be argued that the adoption of non-IP standards will *promote* the IP transition, by prompting those desiring, at nearly all costs, to avoid investing in their non-IP facilities to seek out a reasonable path to upgrade to IP networks instead of implementing non-IP authentication solutions. In the end, moving forward as recommended herein does not mandate such implementation, but rather provides operators with a choice – to upgrade their networks and interconnect on reasonable terms and conditions in IP or to implement non-IP solutions where they choose not to invest in such upgrades or to provide reasonable IP-based interconnection.

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<sup>46</sup> *Second Caller ID Authentication Report and Order*, ¶ 40.

<sup>47</sup> *Id.*, ¶¶ 74-94.

The Commission has taken a thoughtful and measured approach to TRACED Act implementation throughout this proceeding, noting that a framework requiring either upgrades to IP facilities or work on finding a non-IP solution:

best balances our goal of promoting the IP transition while simultaneously encouraging the development of a non-IP authentication solution for the benefit of those networks that cannot be speedily or easily transitioned. By adopting rules that are not overly burdensome, *we leave voice service providers free to prioritize transitioning to IP, and we strongly encourage voice service providers to take advantage of this opportunity to do so.*<sup>48</sup>

This prioritization of the IP transition is the optimal path toward widespread caller ID authentication, recognizing that consumers plagued by unwanted and/or spoofed calls deserve better than to wait for the IP transition. NTCA, for its part urges the Commission to take the path that prioritizes the IP transition by facilitating a move away from non-IP interconnects – this should include not only adoption of the “network edge” rule proposed herein and in prior NTCA filings (and as discussed more specifically below), but also a targeted effort to set aside, amend, and streamline Commission rules that discourage any upgrade of non-IP facilities. Indeed, as this proceeding continues, the Commission should insist that those claiming implementation of the non-IP standards will slow down the IP transition identify how the agency can encourage (rather than discourage) that transition.

**E. A non-IP mandate could be unnecessary if the Commissioner were to facilitate a transition away from non-IP interconnection arrangements.**

While the Commission has a binary choice with respect to fulfilling its duty under the TRACED Act, it can take the better path in promoting the IP transition by driving a reasonable and well-bounded transition away from non-IP interconnection points.

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<sup>48</sup> *Id.*, ¶ 24.

1. **The Commission should enact a “network edge” rule that preserves, as a default in the absence of an agreement otherwise, the current apportionment of costs for the exchange of voice traffic between RLECs and other operators.**

NTCA urges the Commission to enact a “regulatory backstop” that will enable RLECs to enter into IP interconnection agreements on terms and conditions that retain the “status quo” specifically with respect to the current apportionment of costs between interconnecting providers. This would enable RLECs (and likely many other similarly situated operators) to participate in the IP-based STIR/SHAKEN framework and, for RLECs, in a manner that does not result in the assumption of significant new and unrecoverable costs.

- a. **A “network edge” rule would simply preserve the status quo with respect to cost apportionment for interconnection – it would not in anyway undermine the efficiencies that will come with the IP transition.**

As noted in Section II.A., *supra*, the current model of voice interconnection apportions costs for transport and traffic exchange between RLECs and other operators in a manner that helps to promote reasonable comparability of price and quality in the offering of voice services to urban and rural users alike. This long-standing and equitable apportionment could be turned on its head, however, if IP interconnection can only be implemented at a few POIs scattered in urban areas across the country that are distant from more rural markets. Absent Commission attention to this economic dynamic, smaller rural operators would in all likelihood be forced to pay for “voice transit” (i.e., transport) to reach these distant POIs. While other parties commenting on the NOI, as well as the *SIP Interconnection WG Report*<sup>49</sup> will undoubtedly claim that the overall costs of routing calls may be reduced by the migration to IP routing technology,

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<sup>49</sup> The NOI seeks comment in this in paragraph 33.

even if true, this does not tell the full story. What is too often left out is that this transition, if not subject to at least some reasonable “rules of the road,” will unquestionably increase RLECs’ *share* of those transit and transport costs. (Put another way, if the costs of routing calls in IP are in fact less, it is unclear why any larger operator would object to the default interconnection rule that NTCA proposes because it should simply ensure that *both* parties realize their respective shares of this efficiency gain.) If RLECs are compelled to establish transport to multiple distant points of interconnection with multiple operators, they would then be forced to recover those increased costs from a small rural customer base in defiance of universal service objectives.

To implement a “network edge” rule, the FCC should establish a simple “default” apportionment of costs among operators. While calls may route through a variety of IP-enabled interconnects (or to multiple points) to reach their destination, the FCC should declare that any RLEC will not be financially responsible as a matter of *cost* for more than it bears today in routing such calls through existing TDM-based interconnections with other voice service providers. To operationalize this, as a default, any party exchanging traffic with a RLEC would be financially responsible to interconnect with a RLEC in IP at the RLEC’s existing network or established interconnection point – or, the parties may mutually agree to meet and bear relative financial responsibility to interconnect via IP at a different meet point. For example, to the extent the RLEC already has IP-enabled facilities interconnected at another meet point, the RLEC might be interested in leveraging those facilities – although the other party would not be compelled to do so unless *it too* finds that to be an efficient arrangement.

Such a framework, in addition to protecting rural consumers, would have several benefits that should hasten the widespread adoption of STIR/SHAKEN as well as the availability of IP interconnection for voice traffic. For one, all underlying networks – the very real physical assets

that are necessary to take data or traffic in whatever format from one location to another – would continue to be subject to the same well-known and well-understood responsibilities to meet at the same places for the exchange of voice calls as they have in the past (again, in the absence of mutual agreement to change them). This preservation of existing well-known and well-defined constructs should in fact expedite the implementation of IP voice interconnection and the ensuing implementation of STIR/SHAKEN across all networks because all parties’ relative responsibilities would be clearly defined in advance as a default. In fact, those operators with whom RLECs exchange traffic at tandems today would perhaps take the regulatory certainty this provision would produce and, knowing the “basic rules of the road,” would be more likely to offer IP interconnection where they have not before.

Other parties will push back on this proposal under the guise of “preserving the efficiencies of the Internet” or “not replicating the TDM network’s inefficiencies” by having to peer at more than a few select points that are beneficial for nationwide networks. What NTCA suggests herein, however, would not in any way undermine any efficiencies that may accrue from an “all-IP” voice network. Such interconnects could still be put into place – the question presented here is merely one of relative financial responsibilities for reaching such POIs. What NTCA and its members want is to *ensure those efficiencies are shared equitably rather than accruing only to the nation’s largest operators*. Put another way, if all IP voice traffic exchange is truly more efficient, than should not the cost of exchanging voice traffic decrease for each party involved? This will not be the case if one party can dictate all terms of such interconnection and change them to its benefit from existing arrangements. To this end, assuming such concerns are raised, the Commission should ask those assailing a network edge or similar rule why it is appropriate that the costs at issue here should shift entirely from one group

of small entities to another class of larger operators, and how the Commission can ensure that the continued affordability of voice service is not undermined for any particular group of customers as a result of any such shifts.

**b. The Commission has clear legal authority to address IP interconnection as a means of protecting consumers through better authentication and removing a barrier to RLECs' adoption of the critical STIR/SHAKEN standard.**

Clear legal authority – as well as precedent and the public policy imperative of ensuring that rural consumers are not saddled with “second-class” voice networks – provide ample support to adopt default IP voice interconnection rules as proposed herein.

As an initial matter, Section 4(b)(5)(D) of the TRACED Act requires the Commission to “take reasonable measures to address any issues in an assessment under subparagraph (A)(i) and enable as promptly as reasonable full participation of all classes of providers of voice service and types of voice calls to receive the highest level of trust.”<sup>50</sup> As noted above, the persistent presence of non-IP interconnection stands as a primary barrier to the “full participation” of the RLEC “class of providers” in the STIR/SHAKEN framework (similarly situated providers confront this as well). One cannot doubt that Congress had resolution of this kind of barrier in mind when drafting that provision. For one, the reference to “all classes of providers” indicates that Congress, despite understanding that non-IP in a call path renders STIR/SHAKEN technically infeasible, sought to empower the Commission to find and take “reasonable measures” to assist providers that cannot adopt the standard due to certain circumstances. And because the TRACED Act as a whole is based upon the end-to-end all-IP nature of STIR/SHAKEN, the Commission set forth a choice for providers that “materially rely” on “non-

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<sup>50</sup> TRACED Act, § 4(b)(5)(D).



IP” networks, upgrade to IP or implement a non-IP solution. Moreover, as noted herein and as the Commission has already found, the TRACED Act did not contemplate non-IP facilities getting in the way – rather, Congress sought authentication across all networks, and a network edge rule would be a materially productive step in that direction. While the Commission fortunately has two “reasonable measures” it can pursue here (non-IP standards or IP traffic exchange), NTCA urges it in the first instance to take the one that move the IP transition forward.

Beyond the specific direction provided to the Commission by the TRACED Act, the agency has additional, strong public policy reasons for acting here – specifically the need to protect the reliability of the voice network for rural consumers. The “reverse rural call completion” scenario highlighted herein, where calls from rural consumers appear unauthenticated and thus untrustworthy, risks relegating these consumers to “second-class” voice networks. Ultimately, the inability to implement SHAKEN/STIR because of a lack of clarity with respect to IP interconnection rights and responsibilities could leave millions of rural consumers with getting more spoofed calls or calls that get blocked far too often in trying to reach the rest of the world. Certainly, Congress would not countenance such a result when two routes around non-IP facilities sit waiting for Commission action.

With respect to the “rules of the road” for IP voice interconnection proposed by NTCA, there is specific on-point precedent for just such a provision. In 2011, the Commission adopted a “rural transport rule” applicable to the exchange of voice traffic in certain circumstances.<sup>51</sup> That provision was enacted under circumstances similar to that which exist here: at that time, the

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<sup>51</sup> *USF/ICC Transformation Order*, ¶¶ 998-999.

Commission recognized that policy changes being enacted to address broader systemic issues (at that time, intercarrier compensation reforms) risked shifting transport charges directly onto rural carriers and the customers they serve. Similarly several years later, the Commission tackled 8YY access charge rates and acknowledged that “a carrier has no legal obligation to agree to unilateral attempts to change network interconnection points.”<sup>52</sup> There, the Commission reminded the industry that “on several occasions the Commission has found that unilateral attempts by a carrier to change its interconnection point with another carrier that results in increased costs or inefficient routing of traffic is unjust and unreasonable under section 201(b) of the Act.”<sup>53</sup> In each of these scenarios, the Commission was concerned that its attempt to achieve a broader policy goal could have harmed a certain class of consumers, and in each it took a rather narrow step necessary to ensure that this policy could move forward without unnecessary harm to rural consumers. Here, the impetus to promote rapid implementation of STIR/ SHAKEN both to protect rural consumers from spoofing and from having their unauthenticated calls blocked in error can, *if proper care is not taken*, harm rural consumers in much the same way by foisting upon them transport costs that have never been thrown atop them before. Yet, as was the case with the rural transport rule and preservation of network edges, a simple default rule can ensure that the Commission’s larger policy goal (widespread STIR/SHAKEN adoption) can be accomplished in short order while also protecting rural consumers from having to face the prospect of relief from spoofers but at the expense of quality or affordable voice service.

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<sup>52</sup> *8YY Access Charge Reform*, WC Docket No. 18-156, Report and Order, FCC 20-143 (rel. Oct. 9, 2020), ¶ 71.

<sup>53</sup> *Id.*

**2. The Commission should also ease the regulatory burdens of transitioning away from non-IP facilities that may serve as a barrier to the IP transition and greater IP traffic exchange.**

The NOI seeks comment on the IP transition, in particular the “nexus between non-IP caller ID authentication and the IP transition generally.”<sup>54</sup> More specifically, the NOI asks whether, “[i]n lieu of pursuing a non-IP authentication solution, should we instead further encourage or require providers using non-IP technology in their networks to upgrade to IP.”<sup>55</sup> As noted above, NTCA views this as the optimal approach. It also one that is consistent with Commission precedent, as the NOI notes in stating that, “[t]he Commission, for the last decade, has been taking regulatory action to encourage the transition to an all IP-network and promote new and innovative product offerings to customers.”<sup>56</sup> The Commission can continue with this pro-IP transition approach and ensure that it has a direct and tangible consumer protection benefit in the form of STIR/SHAKEN technology across all voice networks.

As just one example, to the extent that the Commission’s rules implementing Section 214 of the Communications Act of 1934, as amended,<sup>57</sup> preclude or even discourage any party from retiring its non-IP facilities and migrating to an IP-enabled network instead, the Commission should enact targeted relief to address this concern. To be clear, this must also be pro-consumer – in particular, this must not be done in a way that enables the foisting of new transport and transit costs onto smaller providers.

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<sup>54</sup> NOI, ¶ 37.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*, ¶ 36.

<sup>57</sup> 47 U.S.C. § 214.

Ultimately, every consumer, urban and rural, deserve access to STIR/SHAKEN and its ability to reduce spoofing and enable enforcement against bad actors that flout the Commission’s rules. The Commission has a statutory duty to take steps to encourage and facilitate the IP transition and protect consumers. If those pushing back against the use of non-IP standards are at the same time unwilling to accept some basic default “rules of the road” to move the IP transition forward (and obtain the TRACED Act call for full nationwide based STIR/SHAKEN), their motivations are telling and their complaints should be dismissed.

#### IV. CONCLUSION

For all of the reasons discussed herein, as the next step in its implementation of the TRACED Act, the Commission should promote STIR/SHAKEN across all voice networks (and by extension further the IP transition as well) by facilitating IP interconnection arrangements.

Respectfully submitted,



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