

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Advanced Methods to Target and Eliminate Unlawful Robocalls)	CG Docket No. 17-59
)	
Call Authentication Trust Anchor)	WC Docket No. 17-97

**Comments of
WTA – Advocates for Rural Broadband**

WTA – Advocates for Rural Broadband (“WTA”) files these Comments in response to the Declaratory Ruling and Third Notice of Proposed Rulemaking (“Third Notice”) adopted by the Commission on June 6, 2019.¹ In its Third Notice, the Commission seeks comment on its proposal to create a safe harbor for voice providers that block unauthenticated calls pursuant to the SHAKEN/STIR authentication framework (“framework”), its proposal to require major voice service providers to implement the framework in the event that they fail to do so by the end of 2019, and its proposal to safeguard critical calls.²

WTA represents more than 340 small rural local exchange carriers (“RLECs”) that offer local voice, broadband, and video-related services to customers in some of the hardest to serve areas in our country and are providers of last resort in their communities. In order to offer reliable, affordable voice service and high-speed broadband, WTA members are recipients of Universal Service funding via the High Cost Fund, which allows them to offer services in areas where there would otherwise not be a business case to do so.

¹ *Declaratory Ruling and Third Further Notice of Proposed Rulemaking, Advanced Methods to Target and Eliminate Unlawful Robocalls, CG Docket No. 17-59, Call Authentication Trust Anchor, WC Docket No. 17-97, adopted on June 6, 2019.*

² *Id.* at ¶ 48.

The typical WTA member has only a few thousand customers and a limited budget. Unlike larger providers, the typical WTA member is unable to spread large network upgrade costs in a reasonable and affordable manner over its smaller customer-base. Also, the typical WTA member has between 10-15 employees and, as a result, tends not to have the research and innovation staff that larger providers have and is therefore reliant on the vendor community to provide new solutions and improved service to customers.

Stopping unwanted robocalls must be a priority of the Commission and industry in order for voice telephony to remain valuable for consumers. WTA members go to great lengths to ensure their networks are reliable and secure and have the utmost desire to make unwanted and disruptive robocalls a thing of the past.

However, WTA advises the Commission that any SHAKEN/STIR adoption delays by RLECs are due to legitimate barriers, not undue holdups. Some RLECs are already using IP solutions to transfer calls within their own service territories, but others are unable to afford the costly upgrade to become all-IP enabled. Further, nearly all RLECs are unable to adopt the framework until larger providers also make necessary upgrades. For example, many RLECs are reliant on interconnection arrangements with larger carriers that force them to transmit their voice traffic in legacy Time-Division Multiplexing (“TDM”) format rather than Session Initiation Protocol (“SIP”). Therefore, until large providers make the necessary upgrades and the market develops affordable and technically feasible call authentication solutions for small providers, WTA urges the Commission to put appropriate safeguards in place to ensure that calls made by rural Americans to their more urban counterparts are properly completed. The Commission is well-aware of the struggles that rural Americans faced regarding call completion

– which in some instances is still a problem – and it must be mindful that it does not create a new reverse call completion problem.

THERE ARE BARRIERS PREVENTING RLECs FROM TRANSITIONING TO AN ALL IP NETWORK THAT WILL ENABLE THEM TO ADOPT THE SHAKEN/STIR FRAMEWORK

The Third Notice correctly notes that “small voice providers lack the financial ability and in-house professional expertise necessary to quickly implement the SHAKEN/STIR framework” and also properly suggests adopting a staggered timetable for small providers to adopt the framework.³ Indeed, WTA members have limited staffs that are focused on building a network using widely adopted technologies, maintaining that network, and ensuring that it remains robust to meet customers’ needs. Virtually no RLECs have the resources to engage in product development and are instead reliant on third party vendors who assist them in the adoption of new technologies and upgrades. WTA members are at various stages of transitioning to IP. Many utilize softswitches that are capable of transmitting IP voice traffic. Others have gone further by deploying new infrastructure, such as SIP trunks, that interconnect with the rest of the national voice network. Others still need to make substantial upgrades to have an all-IP network and eventually adopt the SHAKEN/STIR framework.

However, it should be noted that most if not all RLECs that have deployed IP capable infrastructure still send traffic in TDM format because they must interconnect with a legacy TDM tandem switch operated by a Regional Bell Operating Company (“RBOC”) or another large price cap carrier. Therefore, the largest deterrent to many RLECs transitioning to IP and adopting the framework is the status of their interconnection arrangements with large carriers -

³ Id. at ¶ 78.

something that is entirely out of their control. Until larger providers widely adopt voice-over-IP and update their legacy equipment that connects to rural providers, rural providers will have no practicable reason to begin investing in new equipment to makes their networks fully IP enabled. Once such a transition by large providers occurs, WTA expects vendors will have a much greater incentive to develop feasible and affordable IP solutions designed for RLECs and other small providers.

It must be noted that upgrading to an all-IP voice network is an expensive proposition for RLECs. One WTA member that is considering a conversion of its transport to IP stated that it would need to install two new session board controllers at an approximate cost of \$50,000 each for the two exchanges it operates. On top of the deployment costs, the company would also pay a \$25,000 annual software license for each exchange. This puts the cost of upgrading well into six figures and, as a result, is considered a long-term project (4-5 years) for the company.

A large provider would have the ability to spread that upgrade cost over far more customers, but an RLEC, with its small customer base, is greatly limited in the ways it can spread and recover that cost. For starters, while transitioning to IP and adopting SHAKEN/STIR may prevent robocalls, it is unfortunately not something that can be marketed and sold like other network investments can be (e.g., increased broadband speeds). In fact, the typical customer is not as likely to notice a decrease in robocalls received after his or her carrier transitions to IP and adopts the framework in the same manner that he or she would notice an increase in voice quality or broadband speed. Further, many WTA members have accepted or will soon accept a set amount of Universal Service funding over ten years through the Alterative Connect America Model that did not consider or include any recovery for the substantial costs of the all-IP voice network upgrades necessary to accommodate the framework.

In connection with IP upgrades, the Commission must adopt rules that enable RLECs to connect efficiently and affordably to the Internet. Rules governing interconnection will be critical to ensuring that rural customers get to and from Internet exchange points and backbone routes in an efficient and affordable manner. RLEC struggles with interconnection are a result of uneven bargaining power where larger providers often disregard the wishes of the RLEC and force it to accept undesirable facilities, meet points, and rates. For example, some WTA members have been refused ethernet middle mile services and have been forced to use slower services. Others have been threatened by one large provider with having to exchange all of their Internet traffic with it at a single location in a distant large city. This will lead to increased prices and decreased service quality for RLEC customers. Therefore, the Commission should adopt clear rules that regulate the negotiation and terms of interconnection agreements and make it possible for small carriers to connect with larger providers at nearby locations and reasonable rates. Fair and reasonable interconnection agreements will be critical for RLECs transitioning to an IP voice network and adopting the SHAKEN/STIR framework.⁴

WTA members will continue to upgrade their networks to be all-IP enabled, but barriers out of their control remain that prevent them from doing so. As a result, WTA cannot speculate on how long an all-IP transition will take for RLECs. WTA thus agrees with the Third Notice's proposal to adopt a staggered timetable for small provider adoption.⁵ Once large providers have successfully transitioned, WTA proposes that the Wireline Bureau release a public notice seeking comment on the feasibility of completely transitioning to IP for small providers and what that timeline may look like. WTA believes that a much more accurate timeline can be established

⁴ See Comments of WTA – Advocates for Rural Broadband, WC Docket No. 17-108, filed on July 17, 2017.

⁵ Third Notice at ¶ 78.

at a later date after larger providers have made the necessary upgrades and RLECs have a complete picture of what remains to be done with their own networks.

**THE COMMISSION MUST ENSURE LEGITIMATE
CALLS FROM RURAL CARRIERS ARE NOT BLOCKED**

As noted previously, there are barriers outside the control of RLECs that are preventing them from transitioning to voice-over-IP and adopting the SHAKEN/STIR framework. Specifically, their inability to transmit traffic in SIP format to large provider tandems forces them to submit their traffic in TDM format. Therefore, until the time when RLECs have adopted the framework, a framework participant should not block a call solely on the basis that it failed Caller ID authentication. Expanding the safe harbor any further would be a threat to Universal Service and create a new threat of reverse call completion where rural callers are unable to make calls to their urban counterparts.

The Third Notice requests comment on its proposal to create a safe harbor for voice providers that choose to block calls that fail Caller ID authentication under the SHAKEN/STIR framework. The Third Notice cites the example that a call would be blocked if the originating attestation header had been maliciously altered or inserted.⁶ WTA supports the idea of a safe harbor as it gives providers the chance to confirm in real life testing that the framework is a solution for blocking unwanted robocalls and it gives providers further opportunity to improve upon the framework. However, WTA believes that the safe harbor must be narrow. It should only allow for the blocking of a call between two framework participants. It should not allow for the blocking of a call solely on the basis that it lacks Caller ID authentication under the framework. This ensures that providers who do not participate in the framework because they are

⁶ Id. at ¶ 51.

either currently upgrading their network, or as in the instance of many RLECs, they are technically incapable of participating due to technical issues beyond their control, will be able to successfully place calls.

Further, for calls that are blocked under the safe harbor, the Commission should require the blocking provider to send a message to both the blocked carrier and the customer notifying him or her that the call was blocked.⁷ This notice is critical for the blocked carrier so that it is able to contact the blocking provider in order to fix any problems resulting in the blocking of legitimate calls that are not the targeted robocalls. It also gives the blocked caller notice that his or her call was not placed and that the intended call recipient does not know that someone tried to contact him or her. The Commission should require each carrier to designate a point of contact that blocked callers can use to ensure their calls are properly placed in the future. This process must be expedited, as many calls are time-sensitive and should not be unnecessarily delayed.

CONCLUSION

WTA supports the Commission's efforts to stop unwanted robocalls and advises the Commission that it must be cognizant of the barriers RLECs face in adopting the SHAKEN/STIR framework. Namely, most RLECs will be unable to adopt the framework until the tandems they interconnect with are updated to receive traffic in SIP format. Until that upgrade occurs, RLECs cannot transition to an all-IP voice network and will continue to submit their voice traffic in TDM format, despite many RLECs using SIP in parts of their own network. The Commission must also recognize the important role that interconnection has played in achieving universal voice access and must modernize it to translate that success into an all-IP

⁷ Id. at ¶ 58.

world. Finally, WTA supports a narrow safe harbor that should only allow for calls to be blocked when they are between two SHAKEN/STIR framework participants and the call fails authentication. Calls placed by non-participants should not be blocked solely on the basis that they fail Caller ID authentication.

Respectfully submitted,

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