

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

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

REPLY COMMENTS OF TRANSNEXUS

TransNexus submits these reply comments on proposed rules for gateway providers to apply STIR/SHAKEN caller ID authentication and perform robocall mitigation on foreign-originated calls with U.S. calling numbers.<sup>1</sup>

In their comments on these proposed rules, Comcast made some statements about call authentication involving non-IP networks.<sup>2</sup> In our reply comments, we will address these statements with information from ATIS standards and our experience regarding call authentication in non-IP networks.

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<sup>1</sup> See Fifth Further Notice of Proposed Rulemaking in CG Docket No. 17-59 & Fourth Further Notice of Proposed Rulemaking in WC Docket No. 17-97, FCC 21-105, hereafter referred to as “FNPRM.”

<sup>2</sup> See COMMENTS OF COMCAST CORPORATION, December 10, 2021, at [https://ecfsapi.fcc.gov/file/121099934097/Comcast%20Comments%205th%20Robo-4th%20Auth%20FNPRM%20\(2021.12.10\).pdf](https://ecfsapi.fcc.gov/file/121099934097/Comcast%20Comments%205th%20Robo-4th%20Auth%20FNPRM%20(2021.12.10).pdf).

## STIR/SHAKEN HAS BEEN EXTENDED TO NON-IP NETWORKS

In their comments, Comcast stated that “STIR/SHAKEN protocols are reliant on IP-based standards.” In fact, the following ATIS STIR/SHAKEN standards have extended the protocols to include non-IP traffic:

- ATIS-1000095, *ATIS Standard on Extending STIR/SHAKEN over TDM*.<sup>3</sup>
- ATIS-1000096, *ATIS Standard on SHAKEN: Out-of-Band PASSporT Transmission Involving TDM Networks*.<sup>4</sup>

## THE OUT-OF-BAND FRAMEWORK STANDARD IS NOT OUT-OF-BAND STIR

In their comments, Comcast stated that “the Commission should not require STIR/SHAKEN-compliant providers to accommodate alternative approaches (such as out-of-band STIR).”

There are two potential sources of confusion or misunderstanding in this statement.

First, the ATIS-1000096 standard on *Out-of-Band PASSporT Transmission Involving TDM Networks* is not out-of-band STIR. The ATIS Non-IP Call Authentication Task Force went beyond the out-of-band STIR framework described in RFC 8816<sup>5</sup> and its successor, *Out-of-Band STIR for Service Providers*,<sup>6</sup> to create a new standard for out-of-band transmission of PASSporTs. There are important differences between the approved standard, ATIS-1000096, and these predecessors. These differences address the second potential source of confusion or misunderstanding, which involves participation requirements.

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<sup>3</sup> See ATIS-1000095, Extending STIR/SHAKEN over TDM, at

[https://access.atis.org/apps/group\\_public/download.php/60331/ATIS-1000095.pdf](https://access.atis.org/apps/group_public/download.php/60331/ATIS-1000095.pdf).

<sup>4</sup> See ATIS-1000096, Signature-based Handling of Asserted information using toKENs (SHAKEN): Out-of-Band PASSporT Transmission Involving TDM Networks, at

[https://access.atis.org/apps/group\\_public/download.php/60535/ATIS-1000096.pdf](https://access.atis.org/apps/group_public/download.php/60535/ATIS-1000096.pdf).

<sup>5</sup> See RFC 8816 Secure Telephone Identity Revisited (STIR) Out-of-Band Architecture and Use Cases, at <https://datatracker.ietf.org/doc/rfc8816/>.

<sup>6</sup> See Out-of-Band STIR for Service Providers, at <https://datatracker.ietf.org/doc/draft-ietf-stir-servprovider-oob/>.

## **PARTICIPATION**

The newly approved ATIS standards both adhere to a core principle: These solutions do not place any new requirements on SHAKEN-compliant VoIP service providers.

This means that providers that use all-IP network technology and interconnections do not have to do anything to their SHAKEN implementation to support either Out-of-Band SHAKEN (ATIS-1000096) or ISUP signaling methods for SHAKEN (ATIS-1000095). In fact, all-IP SHAKEN providers would never know if either out-of-band SHAKEN or ISUP SHAKEN signaling were used somewhere along the call path for calls that they send or receive.

For example, this principle is explained with nine call scenario examples in section 8 of the Out-of-Band SHAKEN standards document. These examples use a call path involving five providers, with various scenarios where providers somewhere along the call path use non-IP network technology and others do not. The common thread is that only the providers along the call path that use non-IP network technology or interconnections would use Out-of-Band SHAKEN. All-IP providers would not.

ATIS-1000095, the ATIS Standard on Extending STIR/SHAKEN over TDM, follows a similar approach. Only providers at either end of a TDM connection would implement this standard. All-IP providers elsewhere along the call path would not have to do anything to support this standard.

This addresses Comcast's concern that the Commission should not require STIR/SHAKEN-compliant providers to accommodate alternative approaches. Neither of the new standards for non-IP SHAKEN involve such requirements. ATIS Non-IP Call Authentication Task Force members were keen to follow this core principle in developing these standards.

## **OUT-OF-BAND SHAKEN IN REAL WORLD PRODUCTION NETWORKS**

In their comments, Comcast stated that “no end-to-end caller ID authentication solution for non-IP networks has been deployed in the real world.” In fact, TransNexus has over 50 service provider customers using out-of-band SHAKEN in their real-world production networks. As explained above, neither SHAKEN for TDM approach requires end-to-end adoption. Only providers that rely on non-IP technology would use these methods.

## **THE COMMISSION SHOULD ACT**

Many calls encounter TDM network technology somewhere along their call path. In the current SHAKEN ecosystem, the benefits of call authentication are lost to both the calling and called parties for such calls. This undermines the widespread adoption and effectiveness of SHAKEN.

We are supportive of the transition from non-IP network technology to an all-IP telephone network. However, we are also realists. We expect that non-IP technology will remain in the network for a while—longer than users of telephone services are willing to bear the burden of illegal robocalls.

The Commission should act. SHAKEN for TDM standards have been approved. Solutions using these methods are commercially available and implementable. It’s time to move forward. The Commission should phase out the non-IP SHAKEN extension.

Respectfully submitted  
/s/ Jim Dalton  
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TransNexus