Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Call Authentication Trust Anchor	)	WC Docket No. 17-97
	)	

JOINT COMMENTS OF INCOMPAS AND
THE CLOUD COMMUNICATIONS ALLIANCE

The Cloud Communications Alliance ("Alliance") and INCOMPAS submit these joint comments in response to the Federal Communications Commission's ("FCC" or "Commission") *Notice of Proposed Rulemaking ("Notice")* proposing to address the caller ID authentication gap resulting from non-Internet Protocol ("IP") networks.[1] The *Notice* provides an opportunity to further the Commission's various efforts to accelerate the technology transition. The TRACED Act provides clear authority to mandate conversion of TDM networks to IP to ensure the universal application of STIR/SHAKEN.[2] In these comments, the Alliance ("Alliance") and INCOMPAS urge the Commission to mandate that TDM-in-the-middle networks upgrade to IP within a date certain.[3]

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[1] *Call Authentication Trust Anchor,* WC Docket No. 17-97, Notice of Proposed Rulemaking, FCC 25-25 (rel. Apr. 29, 2025) ("*NPRM*" or *Notice"*).

[2] TRACED Act Section 4(b)(1)(B). *See also* 47 C.F.R. § 64.6303 (requiring non-IP networks to upgrade to IP as one alternative).

[3] INCOMPAS and the Alliance are not recommending mandating TDM-based *originating* networks upgrade to IP within a date certain. The Commission is already taking substantial steps to foster the transition of last mile networks by reducing reporting and disclosure obligations. *See Reducing Barriers to Network Improvements and Service Changes*, *Accelerating Networks Modernization*, WC Dockets No. 25-209, 25-208, Notice of Proposed Rulemaking, FCC CIRC2507-01.

I. THE COMMISSION SHOULD MANDATE UPGRADING TDM-IN-THE-MIDDLE NETWORKS TO IP

The primary issue faced by Alliance and INCOMPAS members' effective use of STIR/SHAKEN is the removal of STIR/SHAKEN information by TDM-in-the-middle networks that have refused to upgrade to IP. As we have previously informed the Commission, our member companies have expended substantial resources to implement STIR/SHAKEN on their IP networks. They are signing calls using STIR/SHAKEN and, given their relationship with end user customers, typically assign an A-level attestation. This attestation should enhance the likelihood that the call will not be blocked or mislabeled.[4] Our member companies' efforts are, however, effectively being squandered because TDM-in-the-middle networks that fail to undertake the work necessary to upgrade to IP.

Major providers that operate TDM-based networks echoed the Commission's own assessment[5] that upgrading networks to IP is the most effective and efficient way way to ensure end-to-end transmission of STIR/SHAKEN information.[6] In particular, as noted by Verizon, upgrading TDM-in-the-middle networks "creates efficiencies because it avoids the 'double conversion' that both providers must today undertake to exchange traffic (from IP to

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[4] Alliance Reply Comments at 2. Unless otherwise noted, all citations to comments refer to comments filed in response to the Commission's 2022 Notice of Inquiry, *Call Authentication Trust Anchor*, WC Docket No. 17-97, Notice of Inquiry, 37 FCC Rcd 13451 (2022) (*Notice of Inquiry*).

[5] *Notice* at para. 4 ("A complete IP transition remains the best solution to achieving ubiquitous caller ID authentication, as it will enable providers to implement STIR/SHAKEN without additional regulatory requirements.").

[6] *See, e.g.,* Verizon Comments at 1; USTelecom Comments at 1. *See also*, CTIA Reply Comments at 7; NTCA Comments at 22 (prioritizing the IP transition is the optimal path forward); Verizon Reply Comments at 1; WTA Comments at 4.

TDM on the originating side and then from TDM to IP after the traffic exchange on the terminating side)."[7]

At the same time, however, these providers urged the Commission not to mandate such upgrades.[8] They claimed that emergent solutions identified by the SIP Interconnection Working Group to address TDM-in-the-middle (described further below) were right around the corner and that industry should be given time to implement them.[9] And rather than mandate IP upgrades, providers urged the Commission to focus on facilitating the technology transition by reforming the section 214 discontinuance requirements applicable to such transitions.[10]

These comments were made almost three years ago. In the interim there has been little noticeable progress made in upgrading TDM-in-the-middle networks. The SIP Working Group's voluntary recommendations have been bogged down in intractable negotiations or flat-out refusals to exchange traffic in IP. In the meantime, the Commission has moved aggressively on requests to streamline section 214 obligations for technology-related discontinuances. The Commission has granted broad waivers and is poised to issue a further notice on permanent reforms. In short, the Commission has cleared the obstacles previously raised by providers to upgrading TDM-in-the-middle networks and the time for a mandate is ripe.

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[7] Verizon Reply Comments at 7.

[8] *See, e.g.,* USTelecom Reply at 12.

[9] Verizon Comments at 4 (stating an IP to IP solution will be available in 2023); USTelecom Reply Comments at 8-9, 11 ("The roll-out is ongoing, with some providers already offering the technology in the marketplace and others preparing for implementation with several providers already negotiating commercial agreements to exchange traffic over the Internet.").

[10] USTelecom Reply Comments at 13.

Along with mandating upgrading TDM-in-the-middle networks to IP, the Commission should confirm that the costs of those upgrades must be borne by the TDM network providers. Additionally, the upgrades should not result in interconnecting IP networks incurring additional costs as a result of the upgrade undertaken by the TDM network providers. The TRACED Act makes it incumbent on TDM network providers to provide a mechanism to enable end-to-end transmission of STIR/SHAKEN information.[11] The directive is not an invitation to shift costs to already established IP networks.

There is no technical or reasonable economic argument to prevent TDM-in-the-middle providers from upgrading to IP. As demonstrated by Aureon, a centralized access provider to many rural LECs in Iowa, upgrading to IP is both technically and economically feasible. Aureon reported that it had upgraded its TDM voice switch to handle IP traffic and would be capable of transmitting STIR/SHAKEN information once connecting IXCs deploy SIP trunking, which Aureon urged the Commission to require.[12]

II. THE COMMISSION SHOULD REPEAL THE CONTINUING EXTENSION FROM CALLER ID AUTHENTICATION REQUIREMENTS

We concur with the Commission's proposal to repeal the continuing extension from the STIR/SHAKEN obligations for non-IP networks, at least for TDM-in-the-middle providers.[13] While the Commission proposes to repeal the extension due to a proposed finding that ATIS-developed workarounds are available and effective, we urge the Commission to predicate the

[11] *See* TRACED Act, section 4(b)(1)(B).

[12] Iowa Network Services, Inc., D/B/A Aureon Network Services (Aureon) Comments at 3-4 (describing upgrade of Aureon's TDM tandem switch).

[13] *See Notice* para. 43.

repeal on the ready availability of IP-based solutions to replace TDM tandems or other TDM-in-the-middle networks.

As noted above, these IP-based solutions to replace TDM tandems have been known to the Commission since 2022. Working from a recommendation to the North American Numbering Council,[14] INCOMPAS joined an effort with other leading trade associations (collectively, the SIP Interconnection Working Group) to identify "options that all voice service providers can use to exchange voice traffic in IP, the cost and security considerations of each, as well as expectations for voice providers as they negotiate interconnection agreements."[15] In an effort to encourage and advance STIR/SHAKEN deployment by all voice service providers, the SIP Interconnection Working Group submitted that providers interested in exchanging [Internet Protocol Voice Service] ("IPVS") traffic in a manner consistent with the STIR/SHAKEN framework could exchange traffic: (1) via dedicated connection, (2) over the Internet, or (3) via third party transport provider, depending upon factors such as volumes of traffic and geographic location of interconnection equipment. Additionally, the Working Group agreed to a series of market-based expectations for IPVS providers, including that all providers should be expected to negotiate the terms and conditions of an IP interconnection agreement in good faith, while retaining discretion not to negotiate with providers actively engaged in illegal behavior.

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[14] *See* CALL AUTHENTICATION TRUST ANCHOR WORKING GROUP, NORTH AMERICAN NUMBERING COUNCIL, FCC, DEPLOYMENT OF STIR/SHAKEN BY SMALL VOICE SERVICE PROVIDERS (2021), *available at* https://nancchair.org/docs/October_13_2021_CATA_Working_Group_Report_to_NANC.pdf (recommending that the Commission permit industry to develop and propose a solution to the SIP interconnection problem within 6-12 months of the date of the report).)

[15] Letter of SIP Interconnection Working Group Co-Chairs to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97 (filed Nov. 16, 2022).

Unfortunately, expectations that all providers negotiate agreements in good faith have not materialized. This agreement and expectation was an important step in addressing this long-standing IP interconnection hurdle in order to maximize the effectiveness of the STIR/SHAKEN framework. Consequently, in many situations, the problem of TDM-in-the-middle persists today. As the Commission considers non-IP call authentication solutions and plans the IP transition, it should closely monitor the current state of IP interconnection and insist that all providers negotiate interconnection agreements in accordance with the solutions and expectations included in the Report. Furthermore, TDM-in-the-middle providers should be encouraged to adopt one of these solutions to facilitate the transmission of STIR/SHAKEN data rather than a non-IP call authentication framework which will be obsolete once the technology transition is completed.

III. THE COMMISSION SHOULD REVISE ITS DEFINTION OF AN "EFFECTIVE" NON-IP CALLER ID AUTHENTICATION FRAMEWORK

Whether the Commission mandates upgrading to IP along with adoption of one of the ATIS-based solutions, the Commission should modify its proposed definition of "effective." The Commission proposes to define an effective solution as one that "operate[s] to produce the intended result of authenticating calls as described in the applicable standard."[16] The proposed definition appears to focus only on the authentication of calls in the first instance, not on whether an authenticated call can be transmitted end-to-end with STIR/SHAKEN information intact. The Commission should thus modify its proposed definition to ensure that, for a solution to be effective, it must ensure that STIR/SHAKEN information embedded in a call can be transmitted end-to-end. Moreover, the Commission should confirm that, to be effective, the solution enables the transmission of all STIR/SHAKEN information inserted by the originating provider.

[16] *Notice* at para. 38.

IV. CONCLUSION

For the reasons stated herein, INCOMPAS and the Alliance urge the Commission to consider the recommendations in its comments as it examines the issues raised in the *Notice*.

Respectfully submitted,

INCOMPAS

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