

gaps in the current STIR/SHAKEN framework³ and because of the lack of a consensus, non-IP caller ID authentication solution. As the agency considers how to extend the effectiveness of caller ID authentication, INCOMPAS submits that the Commission, consumers and industry would be best served by promoting the IP transition and encouraging IP traffic exchange.

Rather than requiring industry to dedicate time and limited resources to a complementary caller ID authentication solution for non-IP networks as considered in the *Notice*, the Commission should instead promote the implementation of solutions that further the transition to fully IP networks. In the current environment, INCOMPAS members originate and terminate millions of calls that are exchanged through TDM networks that arrive at their intended destination without the metadata necessary to effectively authenticate a call. This is primarily because metadata contained in a SIP header can be lost (or must be stripped out) as calls transfer between IP and TDM networks. These calls lack the necessary information and metrics used by voice service providers and their analytics engines to ensure that the calls receive the appropriate attestation or label.⁴ Flooding the ecosystem with calls with an incorrect attestation may, as a result, have a significant adverse impact on call completion rates and could increase the probability that a valid call is blocked by another downstream or terminating provider.

<https://docs.fcc.gov/public/attachments/DOC-390474A1.pdf> (“*FCC Triennial STIR/SHAKEN Report*”).

³ See Comments of INCOMPAS, CG Docket No. 17-59, WC Docket No. 17-97, 4 (filed Aug. 17, 2022) (addressing “the wholesale gap” in the current regulatory framework and how the Commission’s current caller ID authentication and robocall mitigation rules do not take into account the use cases of providers serving enterprise and business customers).

⁴ See Comments of Transnexus, WC Docket No. 17-97, 6 (filed Dec. 12, 2022) (indicating that providers that do not have to exchange traffic outside the non-IP barrier have a 3-to-1 advantage in signed calls—a significant competitive advantage over providers that must engage in TDM traffic exchange).

Furthermore, imposing alternative, non-IP solutions that are likely temporary in nature undermines the value proposition that STIR/SHAKEN is intended to provide. As noted in the record, this traffic exchange between TDM and IP is not simply a result of smaller providers that have not upgraded their networks, but is, in some cases, a business decision by some of the nation’s largest incumbent local exchange carriers (“LECs”) not to exchange traffic in IP.⁵ Major voice service providers presumably have the resources to expedite the IP transition on their networks and should be encouraged to do so. At the same time, requiring smaller providers operating TDM networks to adopt a non-IP caller ID authentication solution would discourage these providers from transitioning to IP and divert resources that could be used to upgrade their networks.

While the full transition to IP networks and IP exchange will provide benefits beyond the robocall context, a fully deployed STIR/SHAKEN framework could offer significant consumer protections benefits, increase the efficiency of the traceback process, and enhance industry’s efforts to identify and mitigate spoofed robocalls. These benefits provide compelling support that the transition to IP traffic exchange is the best and most effective alternative for caller ID authentication. Indeed, in its recent report to Congress on the efficacy of the framework, the Commission concludes that the effectiveness of caller ID authentication “will increase as STIR/SHAKEN implementation becomes more widespread” and that the “framework has significant support among stakeholders.”⁶ Moreover, the Commission continues to extend

⁵ See Comments of NCTA—The Internet & Television Association, WC Docket No. 17-97, 2 (filed Dec. 12, 2022) (indicating that the refusal of major incumbent LECs’—Verizon, AT&T, Frontier, and Lumen—to exchange traffic in IP is a “major contributing factor” to the problem).

⁶ *FCC Triennial STIR/SHAKEN Report* at 11.

STIR/SHAKEN obligations to voice service providers at all stages of the call stream, including originating, terminating, and gateway providers.⁷

As an IP-based solution, the STIR/SHAKEN framework is one of the most prominent and widely-supported examples of the need for the IP transition. There have been other attempts to encourage the IP transition in areas such as nationwide number portability (“NNP”)—including the use of IP Location Routing Numbers to assist in routing NNP calls⁸—but the seriousness of the threat of illegal robocalls to consumers and the resulting loss of confidence in voice service should encourage the Commission and industry to renew the commitment to the IP transition and IP interconnection. And while STIR/SHAKEN is still being refined by industry to address various use cases and regulatory gaps, as a caller ID authentication solution, it has a significant head start over the non-IP standards being proposed for implementation. In fact, the Commission and several stakeholders have identified significant administrative and operational hurdles in ATIS-1000096 (specifically, the need to develop a governance structure) and ATIS-1000095 (perceived limitations on the information that can be shared) that would need to be addressed before these solutions are considered for implementation by voice service providers.

Finally, the Commission seeks comment on actions it can take to encourage the IP transition. As noted by multiple stakeholders in response to the *Notice*, one of the greatest

⁷ The Commission also has an open proceeding in which it proposes to extend the STIR/SHAKEN implementation requirement to intermediate providers. *See Advanced Methods to Target and Eliminate Unlawful Robocalls, Call Authentication Trust Anchor*, CG Docket No. 17-59, WC Docket No. 17-97, Sixth Report and Order in CG Docket No. 17-59, Fifth Report and Order in WC Docket No. 17-97, Seventh Further Notice of Proposed Rulemaking in CG Docket No. 17-59, and Fifth Further Notice of Proposed Rulemaking in WC Docket No. 17-97, para. 160 *et seq.* (rel. May 20, 2022).

⁸ *See* FCC, NORTH AMERICAN NUMBERING COUNCIL, NATIONWIDE NUMBER PORTABILITY WORKING GROUP, REPORT ON NATIONWIDE NUMBER PORTABILITY, 5 (2020), *available at* <https://nanc-chair.org/docs/documents23-2020.html>.

challenges to implementing the STIR/SHAKEN framework across the nation’s voice service networks is the lack of IP interconnection.⁹ Additionally, many competitive voice service providers continue to face obstacles in reaching IP interconnection agreements with industry partners. To that end, the Commission should monitor industry’s progress on achieving interconnection following the release of an industry report that offers various technical solutions for IP interconnection and sets expectations that voice service providers will engage in good faith IP interconnection negotiations for the purpose of achieving end-to-end caller ID authentication.

Working from a recommendation to the North American Numbering Council,¹⁰ 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.”¹¹ In an effort to encourage and advance STIR/SHAKEN deployment by all voice service providers, the SIP Interconnection

⁹ See, e.g., Comments of the Voice on the Net Coalition, WC Docket No. 17-97, 2-6 (filed Dec. 12, 2022) (arguing that the unavailability of IP interconnection could be an impediment to end-to-end STIR/SHAKEN); Comments of NCTA—The Internet & Television Association, WC Docket No. 17-97, 1 (filed Oct. 3, 2022) (indicating that the adoption of STIR/SHAKEN has been hindered by carriers that have not transitioned to IP); Ex Parte Notice of NTCA—The Rural Broadband Association, WC Docket No. 17-97, 1 (filed Oct. 3, 2022) (highlighting the “interplay between IP interconnection, a broader transition to IP technologies, and call authentication objectives”).

¹⁰ 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.)

¹¹ Letter of SIP Interconnection Working Group Co-Chairs to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97 (filed Nov. 16, 2022) (“SIP Interconnection Working Group Report”).

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. This agreement represents an important step in addressing this long-standing IP interconnection hurdle in order to maximize the effectiveness of the STIR/SHAKEN framework. As the Commission plans the IP transition, it should continue to monitor the current state of IP interconnection and insist that the SIP Interconnection Working Group facilitate interconnection agreements in accordance with the solutions and expectations included in the Report.

Respectfully submitted,

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