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

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In the Matter of	)	
	)	
Call Authentication Trust Anchor	)	WC Docket No. 17-97
	)	
Implementation of TRACED Act Section	)	WC Docket No. 20-67
6(a) —Knowledge of Customers by	)	
Entities with Access to Numbering	)	
Resources	)	
	)	

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COMMENTS OF THE ALLIANCE FOR
TELECOMMUNICATIONS INDUSTRY SOLUTIONS

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The Alliance for Telecommunications Industry Solutions (ATIS) hereby submits these comments in response to the *Report and Order and Further Notice of Proposed Rulemaking* (*FNRPM*) released March 31, 2020, in the above-referenced docket. ATIS is pleased to have the opportunity to provide its input.

I. BACKGROUND

ATIS is a global standards development and technical planning organization that develops and promotes worldwide technical and operations standards for information, entertainment, and communications technologies. ATIS' diverse membership includes key stakeholders from the Information and Communications Technologies (ICT) industry – wireless, wireline, and VoIP service providers, equipment manufacturers, broadband providers, software developers, consumer electronics companies, public safety agencies, and internet service providers. ATIS is also a founding partner and the North American Organizational Partner of the Third Generation Partnership Project (3GPP), the global collaborative effort that has developed the Long Term Evolution (LTE), LTE-Advanced, and 5G wireless specifications. Nearly 600

industry subject matter experts work collaboratively in ATIS' open industry committees and

incubator solutions programs.

These comments reflect input from, and are submitted on behalf of, the ATIS Industry

Numbering Committee (INC), Next Generation Interconnection Interoperability Forum (NGIIF),

Packet Technologies and Systems Committee (PTSC), and SMS/800 Number Administration

Committee (SNAC).

- INC addresses and resolves industry-wide issues associated with planning, administration, allocation, assignment, and use of the North American Numbering Plan (NANP) numbering resources within the NANP area. INC guidelines and recommendations are used by the North American Numbering Plan Administration (NANPA), the Number Pool Administration (PA), and the Canadian Radio-Television and Telecommunications Commission (CRTC) in the management of numbering resources.[1]

- NGIIF provides an open forum to encourage the discussion and resolution of industrywide issues associated with the operational aspect of telecommunications network interconnection and interoperability, and the exchange of information concerning relevant topics, such as network architecture, management, testing and operations, and facilities.

- PTSC develops and recommends standards and technical reports related to services, architectures, and signaling. PTSC's work programs focus on issues such as Emergency Telecommunications Service (ETS), cybersecurity, IP-to-IP interconnection, lawfully authorized electronic surveillance and the evolution of the public switched telephone network (PSTN).

- SNAC identifies, develops, and implements the resolution of issues impacting existing toll free products and services and evolving technologies affecting future developments in the toll free industry. SNAC is comprised of members representing providers and users of the SMS/800 system and provides recommendations to the owner/manager of the SMS/800 system regarding design and management issues.

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[1] The Toll-Free Numbering Administrator, North American Numbering Plan Administrator and Pooling Administrator participate in ATIS; however, as the neutral administrators for numbering resources, they take no position on these comments.

II. COMMENTS

A. STIR/SHAKEN Header Information

In the *FNPRM*, the Commission proposes to require intermediate providers to pass any identity header they receive to the subsequent intermediate or voice service provider in the call path.[2] The Commission asks whether there are legitimate reasons, technical or otherwise, for an intermediate provider to alter or strip STIR/SHAKEN header information.[3] ATIS notes that there are legitimate reasons for certain intermediate providers (e.g., Government Emergency Telecommunications Service (GETS) providers) to support service processing in which STIR/SHAKEN header information is stripped and/or in which STIR/SHAKEN header information is added after their call processing. For example, the caller ID information of an incoming GETS call from an Originating Service Provider (OSP) may be replaced by an authenticating GETS provider as part of GETS processing. In this case, the incoming STIR/SHAKEN header information is stripped and new STIR/SHAKEN header information for the modified caller ID is included in the outgoing call. Stripping the STIR/SHAKEN header information also may be done where it is necessary to ensure call completion under certain temporary network conditions and for other legitimate reasons.

The Commission notes in the *FNPRM* that the TRACED Act[4] directs it to require voice service providers to take "reasonable measures" to implement an effective caller ID authentication framework in the non-IP portions of their networks no later than June 30, 2021.[5] The Commission proposes to interpret this requirement as requiring voice service providers to actively work to implement a caller ID authentication framework on those portions of its

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[2] *FNPRM* ¶62.
[3] *FNPRM* ¶63.
[4] *Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act*, Public Law 116–105, Adopted Jan. 30, 2019.
[5] *FNPRM* ¶96.

network, either by upgrading its non-IP networks to IP so that the STIR/SHAKEN authentication

framework may be implemented, or by working to develop a non-IP authentication solution.[6]

ATIS observes that there is currently no standardized approach to non-IP (i.e., TDM) call

authentication. The joint ATIS/SIP Forum IP-NNI Task Force has begun to examine this issue as

it relates to the SHAKEN framework, but this work is still in the early developmental stages.

Instead of focusing on developing a TDM call authentication solution, ATIS believes that the

Commission should facilitate the industry's transition to IP. Continuing to require the industry

to expend resources to modify and/or enhance TDM networks would frustrate industry efforts to

transition to IP and could delay this needed transition.

Recognizing that the TRACED Act directs the Commission to consider the availability of

non-IP call authentication technology,[7] ATIS has established a task force to examine potential

non-IP call authentication technologies. While much of the industry's focus has appropriately

been on IP-to-IP call authentication, there are unique challenges facing non-IP networks. This

task force, which will be resident in ATIS' PTSC, will examine these challenges, investigate the

viability of non-IP call authentication frameworks and examine the potential for voluntary best

practices for non-IP networks to address the deployment of relevant IP-NNI Task Force

specifications (e.g., OOB SHAKEN or Extending STIR/SHAKEN over TDM Interconnects) or

interworking of non-IP networks with SHAKEN. The task force will help participants

understand how non-IP networks will be impacted by the SHAKEN framework and if/how non-

IP networks can adapt and address SHAKEN.[8] The Commission should allow this work to

conclude before it adopts rules regarding non-IP call authentication, and ATIS stands ready to

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[6] *FNPRM ¶96.*

[7] See Section 4 of the TRACED Act, *FNPRM ¶88.*

[8] For more information on this effort, please see https://www.atis.org/initiatives/non-ip-taskforce/. Membership in ATIS is not required for participation.

provide an opportunity to address the inherent challenges in the non-IP networks with this task force.

The Commission proposes in the *FNPRM* that, when an intermediate provider receives an unauthenticated call that it will exchange with another intermediate or voice service provider as a SIP call, the provider must authenticate such a call with a "gateway" or "C" attestation.[9] ATIS supports implementation of this proposal on an optional basis, as future development using "C" attestation may be useful to call analytics and/or traceback efforts.[10] ATIS notes that at present this attestation does not directly facilitate identification of caller ID spoofing. Moreover, the mandate would impose substantial unnecessary costs on service providers to establish new workstreams to implement STIR/SHAKEN at gateway switches, diverting attention and resources away from important activities needed to sign and validate traffic in order to restore consumer trust and caller ID.

The Commission seeks comment in the *FNPRM* on issues related to call labeling.[11] ATIS observes that there are no industry standards on the display of call authentication information and therefore supports the Commission's decision not to mandate specifications that voice service providers must use if they choose to display STIR/SHAKEN verification results.[12] While the industry initially considered developing a standardized approach to call labeling, the industry now believes that this issue is best addressed individually by OEMs and providers outside of the standards process. A non-standardized approach will allow the industry the flexibility to innovate to meet customer needs and address evolving attack vectors. ATIS also notes that its NGIIF is in the process of updating the Intercarrier Call Completion/Call

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[9] *FNPRM ¶64.*
[10] *See Signature-Based Handling of Asserted Information Using toKENs (SHAKEN)* (ATIS-1000074-E).
[11] *FNPRM ¶121.*
[12] *FNPRM ¶121.*

Termination Handbook.[13] This update will assist in the resolution of "false positives" or other mislabeling of voice calls under STIR/SHAKEN authentication (or lack thereof), including the use of metadata within the application of call analytics and the labeling of voice calls.

B. Access to Numbering Resources

In the *FNPRM*, the Commission seeks comment on whether it should modify its policies regarding access to toll free and non-toll free numbering resources to help reduce illegal robocallers' access to numbering resources.[14] As a way to accomplish this goal, the Commission asks whether it should require applicants for numbering resources to provide a certification that they "know their customers" through some sort of customer identity verification.[15]

While ATIS strongly supports the Commission's efforts to impede the capabilities of illegal robocallers, it believes that the *FNPRM's* focus on access to numbering resources is not the appropriate means to accomplish this goal.[16] Service providers are allowed to maintain up to a six-month inventory of geographic telephone numbers in each rate center or service area in which it provides telecommunications service.[17] When service providers submit applications for geographic numbering resources to the numbering administrators to build or maintain that six-month inventory, they do not necessarily know to which customer or end user a particular number will be assigned. Service providers are not therefore in a position to "know their customers" until the number has been assigned to the customer.[18] Moreover, some segments of the industry, including telecommunications resellers and toll free providers, may not know the

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[13] *Intercarrier Call Completion/Call Termination Handbook* (ATIS-0300106 (2019-11)). This document is available at no charge from https://access.atis.org/apps/group_public/download.php/49918/ATIS-0300106(2019-11).pdf.
[14] *FNPRM*, ¶127.
[15] *FNPRM*, ¶127.
[16] ATIS recognizes that the Commission was directed to investigate this matter by the TRACED Act.
[17] 47 CFR §52.15 (g)(4)(iii)
[18] In some cases, such as wireless prepaid services, service providers may still not know all the necessary "know your customer" details even after the number is assigned.

end user/customer but may only know their subscriber. Finally, adding a certification to existing number allocation procedures could complicate current processes, requiring changes to automated systems and to industry standards.

ATIS supports a more tailored application of a "know your customer" requirement, as proposed by the State Attorneys General and voice service providers as part of their Anti-Robocall Principles. As part of these principles, the voice service provider signatories agreed to incorporate, or continue incorporating, into their business practices a practice to "[c]onfirm the identity of new commercial VoIP customers by collecting information such as physical business location, contact person(s), state or country of incorporation, federal tax ID, and the nature of the customer's business."[19] ATIS believes that focusing this requirement on commercial VoIP customers is appropriate because residential customers are not generally the source of illegal robocalls. Moreover, voice service providers already collect significant information about residential customers that would exceed what is proposed as part of the "know your customer" practice envisioned under the Anti-Robocall Principles. There is therefore no need to impose new requirements beyond commercial VoIP customers and international gateways. Instead, ATIS recommends that the Commission encourage broad voluntary adoption of the State Attorneys General Anti-Robocall Principles by all service providers.

If the Commission nonetheless imposes a mandate to impose "know your customer" certification requirements, ATIS notes that there should be exemptions for those segments of the industry that may be unable to collect or obtain useful end user "know your customer" details to identify originating sources of illegal calls, such as service providers serving resellers, wireless prepaid or toll free customers, and carriers who provide wholesale service to direct inward dial

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[19] Anti-Robocall Principles for Voice Service Providers, Principle #5.

(DID) numbers for DID providers.[20] ATIS also recommends that the Commission clarify the definition of "customer." *ATIS' Industry Guidelines for Toll Free Number Administration* (ATIS-0417001-003), for example, distinguishes between the Toll Free Subscriber, which is the entity which subscribes to Toll Free Service from the Toll Free Service Provider and that defines and manages all final termination points, and takes ultimate financial responsibility for usage charges, and the "customer," which is the entity that purchases services from a Resp Org, a Toll Free Subscriber, a Toll Free Service Provider, or an Agent of any of these entities. ATIS urges the Commission to provide clear information about the scope of its proposed "know your customer" requirement and its application to specific segments like terminating toll free services and services provided to potential sources of illegal calls.

The Commission seeks input on whether it should modify its Numbering Resource Utilization/Forecast (NRUF) reporting requirements for carriers that assign numbering resources to intermediate providers.[21] The NRUF reporting requirements for intermediate numbers and intermediate providers has been long established,[22] for nearly twenty years now. Thus, ATIS opposes changing the NRUF reporting requirements. Such changes are unnecessary, as many service providers have or are in the process of implementing business practices to verify the identity of commercial VoIP providers. Additionally, there would be significant cost if service providers are required to modify and update automated systems. Given ATIS' concerns about the value of such changes, it believes that it is unnecessary to impose these costs on the industry.

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[20] ATIS is aware that DID numbers have been misused in the past to perpetrate fraud. However, ATIS believes that there are more effective ways to address this issue than through additional restrictions on access to numbers.
[21] *FNPRM*, ¶127.
[22] See 47 CFR §52.15 (f)(1)(v). See also ATIS INC's NRUF Reporting Guidelines (https://access.atis.org/apps/group_public/download.php/49758/ATIS-0300068(2019-10).zip), NANPA's instructions for completing the geographic NRUF Form 502 (https://www.nationalnanpa.com/pdf/NRUF/Geographic_NRUF_Instructions.pdf), and NANPA's NRUF Geographic Job Aid (https://www.nationalnanpa.com/pdf/NRUF/Geographic_NRUF_Instructions.pdf). See also clarifications on intermediate numbers in FCC 15-70 ¶30-32.

III.   CONCLUSION

ATIS appreciates the opportunity to provide its input to the *FNPRM* and urges the

Commission to consider the recommendations above.

Respectfully submitted,

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