Charter
COMMUNICATIONS

Thomas M. Rutledge
Chairman and Chief Executive Officer

VIA Electronic Delivery & ECFS

The Honorable Ajit V. Pai
Chairman
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
Ajit.Pai@fcc.gov

RE: *Call Authentication Anchor*, WC Docket No. 17-97

Thank you for your letter regarding Charter's plans to implement a robust call authentication framework to combat illegal robocalls.

We are committed to combatting illegal robocalls for our customers, and we appreciate that you have made this critical consumer protection issue a priority. Charter has a long history of protecting consumers against bad actors, and we are already deploying solutions to address spoofed calls and illegal robocalls.

We agree that industry plays an important role in protecting consumers from illegal robocalls, and Charter is eager to contribute towards work on the industry solution. We are actively participating in the industry-led effort to enable voice providers to authenticate phone numbers of calling parties before they reach called parties. This approach is based on the "Signature-based Handling of Asserted Information using toKENs" ("SHAKEN") protocols and procedures, which leverage the Internet Engineering Task Force's Secure Telephone Identity Revisited ("STIR") protocol (collectively, the "SHAKEN/STIR Framework").

As we have explained in conversations with the Commission and in recent written comments, Charter is working collaboratively with other stakeholders to implement the SHAKEN/STIR Framework throughout our footprint and supports the adoption of rules that would permit providers to block calls that fail authentication where both the calling and terminating provider have implemented the SHAKEN/STIR Framework.[1]

Signing

We are working diligently to develop a signing solution and expect to begin signing calls on our network in 2019, provided that adequate third-party software solutions are available and scalable. The following steps remain:

- The industry must finish addressing and refining technical aspects of the SHAKEN/STIR framework; for example, the Alliance for Telecommunications Industry Solutions ("ATIS") is currently in the process of developing standards regarding the issues that arise with forwarded calls.

- Several vendors must define and modify their SHAKEN/STIR implementations, as most are currently in the process of doing. Because we rely on external vendor solutions, these steps are

[1] *See* Comments of Charter Communications, Inc., CG Docket No. 17-59, at 3-4 (Sept. 24, 2018).

preconditions to further progress by Charter. We expect to receive initial candidate code versions before year-end (*i.e.*, in December 2018).

- Once Charter receives the software from our vendors, we will need to engage in thorough testing to verify its reliability and scalability. This is necessary to ensure that our customer's voice service isn't unnecessarily disrupted.

- Charter will also need to modify or replace certain hardware and software in Charter's network to implement SHAKEN/STIR. Charter began deployment activities in 2018, and plans to continue testing of new applications and deployment of network upgrades throughout 2019; however, unknown short-term and long-term costs still need to be clarified.

- The Governance Authority's continuing work toward selecting the Policy Administrator is necessary to facilitate implementation of call signing. The Administrator will serve as the primary trust anchor of the system, and will ensure that certificates used to authenticate and verify tokens are available only to authorized participants.

- Following the establishment of a Policy Administrator, certification authorities also will need to be chosen to provide the certificates that will allow originating providers to authenticate calls as legitimate.

Deployment Tests

Charter expects to receive preliminary code—which will provide us with an initial view into SHAKEN/STIR functionality—from vendors by year-end 2018, and will begin testing the code for functionality and interoperability upon receipt. Once the code has been verified for basic capabilities, we will begin testing for reliability, scalability, and deployment.

Collaboration with Vendors

Charter has been working directly with key vendors to evaluate their roadmaps in conjunction with our own plans for SHAKEN/STIR deployment.

We have also actively supported the SHAKEN standards. For example, Charter serves as a participant on the North American Number Council ("NANC") Call Authentication Trust Anchor Working Group, and we worked closely with that group to establish the SHAKEN/STIR Governance Authority framework. Charter represents NCTA as a Board Member for the Governance Authority and supports the Working Group's approach to standing up the Governance Authority ecosystem. We also have actively participated in the ATIS Internet Protocol Network-to-Network Interface ("IP-NNI") Task Force, which is seeking to identify the baseline set of features that should be common to all IP-NNI implementations for voice service.

In addition, we have partnered with Nomorobo to reduce robocalls on inbound voice traffic for our residential voice customers. The Robocall Strike Force, on which we participated, recognized that consumer choice is critical to effectively managing illegal robocalls. Charter agrees. Nomorobo automatically blocks calls using a list of known unwanted phone numbers, including those on the "Do Not Call Registry," while also maintaining an extensive "whitelist" of emergency services, such as hospitals, to avoid false positives.

Hundreds of thousands of our users have signed up for Nomorobo service, and the vast majority are active users.

Intermediate Provider

Charter is not an intermediate provider.

Combatting Illegally Spoofed Calls

With respect to authentication of calls under the SHAKEN/STIR framework, we have dedicated engineers to focus on design and strategy issues until the framework is fully implemented. More generally, we have partnered with Nomorobo to empower our residential voice consumers and to reduce the impact of robocalls on inbound voice traffic. Charter also has dedicated a team to prevent outbound voice traffic fraud and to protect our network and our customers.

With respect to our enterprise customers, Charter offers a Custom Caller ID feature, which enables a customer to define the telephone number that appears to call recipients using Caller ID. Per the terms of service, Charter requires that the telephone number chosen must be active and assigned to the enterprise customer. We also require that the customer ensure 911 and other emergency calls are routed to an appropriate public safety answering point or other responding agency, based on the caller's location, in a manner consistent with applicable law. Telemarketers using this feature must comply with federal and state law, including obligations requiring identification of the telemarketer or the party on whose behalf the telemarketing call is being made and the calling party's number, automatic number identification, or the customer service number of the party on whose behalf the telemarketing call is being made. The use of substitute or fictitious information is prohibited.

Authorizing the Blocking of All Unsigned or Improperly Signed Calls

Charter anticipates working with ATIS to develop best practices and criteria for blocking calls that are highly likely to be unlawful, while simultaneously ensuring legitimate calls are completed. Industry standards-setting bodies are best equipped to efficiently adapt and implement effective solutions to combat fraudulent and abusive practices. Moreover, ATIS involves broad participation and utilizes transparent, consensus-based approval processes, ensuring that its work will prioritize industry and consumers alike, and result in output that is easily reviewable.

*****

We view the SHAKEN/STIR Framework as a priority and hope that our responses will help the Commission and industry move forward toward its implementation. We stand ready to support you and the Commission as you move aggressively to tackle the scourge of illegal robocalls.

Sincerely,

Thomas M. Rutledge

CC: Deborah Salons (Deborah.Salons@fcc.gov)