

FACT SHEET*

Promoting Caller ID Authentication to Combat Illegal Robocalls
Third Further Notice of Proposed Rulemaking – WC Docket No. 17-97

Background: Illegally spoofed robocalls are a menace to the American public. Implementation of caller ID authentication technology—specifically, the framework known as STIR/SHAKEN—will reduce the effectiveness of illegal spoofing, allow law enforcement to identify bad actors more easily, and help voice service providers identify calls with illegally spoofed caller ID information before those calls reach their subscribers. The FCC required most voice service providers to implement this technology in their Internet Protocol (IP) networks by June 30, 2021. But it granted some providers additional time to do so—notably, it gave small voice service providers with 100,000 or fewer subscriber lines until June 30, 2023 to implement STIR/SHAKEN. New evidence suggests, however, that a subset of small voice service providers appears to be originating a large and increasing quantity of illegal robocalls.

What the Third Further Notice of Proposed Rulemaking Would Do:

- Propose to shorten the extension for small voice service providers most likely to originate illegal robocalls by one year, so that such providers must implement STIR/SHAKEN in the IP portions of their networks no later than June 30, 2022.
- Seek comment on how best to identify and define the subset of small voice service providers that are at a heightened risk of originating an especially large amount of illegal robocall traffic.
- Seek comment on whether to adopt additional measures, including data submissions, to facilitate oversight to ensure that small voice service providers subject to a shortened extension implement STIR/SHAKEN in a timely manner.

* This document is being released as part of a “permit-but-disclose” proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WC Docket No. 17-97, which may be accessed via the Electronic Comment Filing System (<http://www.fcc.gov/ecfs>). Before filing, participants should familiarize themselves with the Commission’s *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s Meeting. *See* 47 CFR § 1.1200 *et seq.*

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

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

THIRD FURTHER NOTICE OF PROPOSED RULEMAKING*

Adopted: []

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Comment Date: (30 days after date of publication in the Federal Register)
Reply Comment Date: (60 days after publication in the Federal Register)

By the Commission:

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I. INTRODUCTION

1. In this Third Further Notice of Proposed Rulemaking, we take further action to stem the tide of illegal robocalls by proposing to accelerate the date by which small voice providers that originate an especially large amount of call traffic must implement the STIR/SHAKEN caller ID authentication framework. STIR/SHAKEN combats illegally spoofed robocalls by allowing voice service providers to

* This document has been circulated for tentative consideration by the Commission at its May 20, 2021 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Acting Chairwoman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s ex parte rules apply and presentations are subject to “permit-but-disclose” ex parte rules. See, e.g., 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.

verify that the caller ID information transmitted with a particular call matches the caller's number. In March 2020, pursuant to Congressional direction in the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act, the Commission adopted timelines for voice service providers to implement STIR/SHAKEN.¹ In September 2020, pursuant to the TRACED Act, the Commission provided a two-year extension of the deadline for all small voice service providers to implement STIR/SHAKEN.² New evidence suggests, however, that a subset of small voice service providers appears to be originating a large and increasing quantity of illegal robocalls. To better protect Americans from illegally spoofed robocalls, we therefore propose to shorten that deadline from two years to one for the subset of small voice providers that are at a heightened risk of originating an especially large amount of robocall traffic.

II. BACKGROUND

2. In March 2020, the Commission adopted rules requiring voice service providers to implement STIR/SHAKEN in the Internet Protocol (IP) portions of their voice networks by June 30, 2021.³ The STIR/SHAKEN framework relies on public key cryptography to securely transmit the information that the originating voice service provider knows about the identity of the caller and its relationship to the phone number it is using throughout the entire length of the call path, allowing the terminating voice service provider to verify the information on the other end.⁴ To implement STIR/SHAKEN in its network, a voice service provider must update portions of its network infrastructure to enable it to authenticate and verify caller ID information consistent with the framework.

3. Widespread implementation of STIR/SHAKEN will provide numerous benefits for voice service providers, their subscribers, and entities involved in enforcement.⁵ Because STIR/SHAKEN utilizes a three-level attestation to signify what a voice service provider knows about the calling party, it provides vital information that can be used by terminating voice service providers to block or label illegal robocalls before those calls reach their subscribers.⁶ Indeed, the Commission safe harbor for voice service providers that offer opt-out call blocking requires that providers base their blocking decisions on reasonable analytics that take into consideration caller ID authentication information.⁷ STIR/SHAKEN

¹ *Call Authentication Trust Anchor; Implementation of TRACED Act Section 6(A)—Knowledge of Customers by Entities with Access to Numbering Resources*, WC Docket Nos. 17-97, 20-67, Report and Order and Further Notice of Proposed Rulemaking, FCC 20-42, 35 FCC Rcd 3241, 3252, para. 24 (2020) (*First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking*); *Call Authentication Trust Anchor*, WC Docket No. 17-97, Second Report and Order, FCC 20-136, at 4, para. 6 (2020) (*Second Caller ID Authentication Report and Order*). STIR/SHAKEN was developed by industry standards groups. A working group of the Internet Engineering Task Force (IETF) called the Secure Telephony Identity Revisited (STIR) developed several protocols for authenticating caller ID information. See *Second Caller ID Authentication Report and Order* at 4, para. 6. The Alliance for Telecommunications Industry Solutions (ATIS), in conjunction with the SIP Forum, produced the Signature-based Handling of Asserted information using toKENs (SHAKEN) specification, which standardizes how the protocols produced by STIR are implemented across the industry. See *id.* at 4-5, para. 7.

² TRACED Act § 4(b)(5)(A)(ii); *Second Caller ID Authentication Report and Order* at 19, para. 40c

³ 47 CFR § 64.6301; *First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking*, 35 FCC Rcd at 3252, para. 24.

⁴ *Second Caller ID Authentication Report and Order* at 5, para. 8.

⁵ See *First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking* at 3263-65, paras. 46-52.

⁶ See *Second Caller ID Authentication Report and Order* at 5, para. 10.

⁷ *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking, FCC 20-96, 35 FCC Rcd 7614, 7625-27, paras. 25-34 (2020) (“At a minimum, a terminating voice service provider seeking safe harbor protection must have deployed an effective caller ID authentication framework within their own network, accept caller ID

(continued....)

information also promotes enforcement by appending information about the source of a call into the metadata of the call itself, offering instantaneous traceback without the need to go through the traceback process.⁸ STIR/SHAKEN implementation further restores trust in caller ID information and makes call recipients more willing to answer the phone, reduces disruption to E911 networks, reduces providers' complaint response costs, and reduces the government-wide costs of enforcement.⁹ In total, the Commission estimated that the monetary benefit from reducing fraud and nuisance due to illegal robocalls would exceed \$13.5 billion per year.¹⁰

4. The TRACED Act created a process by which the Commission could grant extensions of the June 30, 2021, implementation deadline for voice service providers that the Commission determined face "undue hardship" in implementing STIR/SHAKEN.¹¹ After assessing the burdens and barriers faced by different classes of voice service providers, the Commission granted the following class-based extensions: (1) a two-year extension to small voice service providers;¹² (2) an extension to voice service providers that cannot obtain a "certificate" until such provider is able to obtain one;¹³ (3) a one-year extension to services scheduled for section 214 discontinuance;¹⁴ and (4) a continuing extension for the parts of a voice service provider's network that rely on technology that cannot initiate, maintain, and terminate SIP calls until a solution for such calls is readily available.¹⁵ Voice service providers seeking the benefit of one of these extensions must implement a robocall mitigation program¹⁶ and, under new rules adopted in the *Call Blocking Fourth Report and Order*, all voice service providers must comply with requirements to respond fully and in a timely manner to all traceback requests¹⁷ and adopt affirmative, effective measures to prevent new and renewing customers from using their network to

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authentication information transmitted by an upstream voice service provider, and incorporate that information into its analytics where that information is available.").

⁸ See *Second Caller ID Authentication Report and Order* at 5-6, para. 10; see also ATIS & SIP Forum, Errata on ATIS Standard on Signature-based Handling of Asserted information using toKENs (SHAKEN), ATIS-1000074-E at § 5.2.4 (2019), https://access.atis.org/apps/group_public/download.php/46536/ATIS-1000074-E.zip (describing the origination identifier).

⁹ See *First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking* at 3263-65, paras. 49-52.

¹⁰ See *First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking* at 3263, paras. 47-52.

¹¹ TRACED Act § 4(b)(5)(A)(ii).

¹² *Second Caller ID Authentication Report and Order* at 19-24, paras. 40-48; 47 CFR § 64.6304(a).

¹³ *Second Caller ID Authentication Report and Order* at 24-25, paras. 49-50; 47 CFR § 64.6304(b).

¹⁴ *Second Caller ID Authentication Report and Order* at 25-26, para. 51; 47 CFR § 64.6304(c).

¹⁵ *Second Caller ID Authentication Report and Order* at 35-38, paras. 66-70; 47 CFR § 64.6304(d). The Wireline Competition Bureau also denied two provider-specific extension requests. *Call Authentication Trust Anchor*, WC Docket No. 17-97, Order, DA 21-375 (WCB Mar. 30, 2021).

¹⁶ 47 CFR § 64.6305(a); *Second Caller ID Authentication Report and Order* at 41-44, paras. 76-80. While Commission rules reflect a non-prescriptive approach to this robocall mitigation requirement, a voice service provider's robocall mitigation plan must "include reasonable steps to avoid originating illegal robocall traffic" and "a commitment to respond fully and in a timely manner to all traceback requests." 47 CFR § 64.6305(a)(2); see also *Second Caller ID Authentication Report and Order* at 43, paras. 78-79.

¹⁷ 47 CFR § 64.1200(n)(1); see also *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Fourth Report and Order, FCC 20-187, 35 FCC Rcd 15221, 15227, para. 15 (2020) (*Call Blocking Fourth Report and Order*).

originate illegal calls after receiving notice from the Commission.¹⁸

5. The Commission defined small voice service providers subject to an extension as those with 100,000 or fewer voice subscriber lines.¹⁹ It determined that an extension for small voice service providers until June 30, 2023, was appropriate because of their high implementation costs compared to their revenues, the limited STIR/SHAKEN vendor offerings available to them, the likelihood that costs will decline over time, and because an extension will allow small voice service providers to spread the costs over time.²⁰ In adopting a blanket extension for small voice service providers, the Commission rejected arguments that not all voice service providers face identical hardships and that some of these providers may originate illegal robocalls.²¹ It determined that all small voice service providers, as a class, face undue hardship and thus a blanket extension for such providers is necessary to give them time to implement STIR/SHAKEN.²² The Commission also determined the extension would not unduly undermine the effectiveness of STIR/SHAKEN because small voice service providers must still implement robocall mitigation programs and small voice service providers serve only a small percentage of total voice subscribers, thus limiting potential consumer harm of an extension.²³

6. Following circulation of the *Second Caller ID Authentication Report and Order*, but before its adoption, USTelecom proposed excluding from the definition of “small voice service provider” for purposes of this extension voice service providers that “originate a disproportionate amount of traffic relative to their subscriber base, namely providers that serve enterprises and other heavy callers through their IP networks.”²⁴ USTelecom noted that some of these voice service providers serve customers that “often are responsible for illegal robocalls.”²⁵ Specifically, USTelecom suggested we exclude those small voice service providers that either (1) receive more than half their revenue from customers purchasing services that are not mass-market services or (2) originate more than 500 calls per day for any single line in the normal course of business.²⁶ USTelecom noted that “[g]iven the amount of traffic they originate, those providers should implement STIR/SHAKEN in a timely manner consistent with the goal of ubiquitous call authentication deployment” and that “providers serving these types of customers are unlikely to have the same resource constraints the Commission cited in adopting the extension.”²⁷ The Commission declined to adopt USTelecom’s proposal at the time but left open the possibility that it might reevaluate it in the future. The Commission acknowledged that it saw “value in the policy goals that underlie USTelecom’s request,” but concluded that implementing the proposal would require a “difficult-line drawing exercise” and that it was not “able to identify criteria in the limited time available [before adoption] in which we have confidence.”²⁸ The Commission stated, however, that it was “open to

¹⁸ 47 CFR § 64.1200(n)(3); see also *Call Blocking Fourth Report and Order*, 35 FCC Rcd at 15229-30, 32, paras. 22, 32.

¹⁹ See *Second Caller ID Authentication Report and Order* at 19, para. 40.

²⁰ See *Second Caller ID Authentication Report and Order* at 19-23, paras. 40-48.

²¹ See *Second Caller ID Authentication Report and Order* at 21, para. 44.

²² See *Second Caller ID Authentication Report and Order* at 21, para. 44.

²³ See *Second Caller ID Authentication Report and Order* at 22, para. 44.

²⁴ Letter from Joshua M. Bercu, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, at 5-6 (filed Sept. 18, 2020) (USTelecom Sept. 18 *Ex Parte*).

²⁵ *Id.* at 6 n.18.

²⁶ USTelecom Sept. 18 *Ex Parte* at 5-6; see also Letter from Joshua M. Bercu, Vice President, Policy & Advocacy, USTelecom, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97, at 2 n.5 (filed Sept. 23, 2020) (USTelecom Sept. 23 *Ex Parte*).

²⁷ USTelecom Sept. 18 *Ex Parte* at 6.

²⁸ *Second Caller ID Authentication Report and Order* at 24, para. 48.

revisiting this issue should we determine that the extension creates an unreasonable risk of unsigned calls from a specific subset of small voice service providers.”²⁹

III. FURTHER NOTICE OF PROPOSED RULEMAKING

7. With additional time to consider the issue and new evidence indicating that certain small voice service providers are originating a high and increasing share of illegal robocalls relative to their subscriber base, we now propose to reassess the Commission’s earlier determination that all small voice service providers should receive a two-year extension. Specifically, we propose to shorten by one year the extension for small voice service providers that originate an especially large number of calls, so that such providers must implement STIR/SHAKEN in the IP portions of their networks no later than June 30, 2022. We believe this proposal will protect Americans from illegal robocalls—and especially illegally spoofed robocalls—by ensuring that voice service providers most likely to be the source of illegal robocalls authenticate calls sooner, allowing terminating voice service providers to know if the caller ID is legitimate and take action as appropriate, including by blocking or labeling suspicious calls. We propose to take this action within the framework of the TRACED Act, which we interpret to require us to balance the hardship of compliance faced by voice service providers with the benefit to the public of implementing STIR/SHAKEN expeditiously. We also seek comment on how to define which small voice service providers should receive a shortened extension and on ways to monitor compliance.

A. Basis for Action

8. We propose concluding that a subset of small voice service providers is “often . . . responsible for illegal robocalls,”³⁰ is originating an increasingly disproportionate amount of such calls compared to larger voice service providers,³¹ and should therefore be subject to a shortened extension.

9. A March 2021 report released by Transaction Network Services, a provider of call analytics, found that the problem of robocalls originated by certain smaller voice service providers has gotten worse: by the end of 2020, “[a]lmost 95% of high risk calls originate from non-Tier-1 telephone resources, up 3% from last year.”³² We seek comment on these data and our proposed conclusion that certain small voice service providers are a disproportionate source of these calls. Are commenters able to supply additional new data that address to this issue? Transaction Network Services previously stated in its 2020 comments that its data show, through the end of 2018, “87% of problematic calls originate . . . on non-Tier 1 networks”³³ even though “the top 6 carriers represent almost 75% of . . . total calls.”³⁴ We

²⁹ *Second Caller ID Authentication Report and Order* at 24, para. 48.

³⁰ USTelecom Sept. 18, 2020 *Ex Parte* at 6 n.18.

³¹ See AT&T Comments at 14 (arguing against a blanket extension for small voice service providers “given the role of some such IP-based providers either in originating and/or serving as the domestic gateway for unauthorized calls.”); Ryan Tracey and Sarah Krouse, Small Companies Play Big Role in Robocall Scourge, but Remedies Are Elusive, *The Wall Street Journal* (Aug. 18, 2019), <https://www.wsj.com/articles/small-companies-play-big-role-in-robocall-scourge-but-remedies-are-elusive-11566120720> (“The billions of illegal robocalls inundating Americans are being facilitated largely by small telecom carriers that transmit calls over the internet, industry officials say, but authorities are at odds over what – if anything – they can do to stop them.”).

³² Transaction Network Services Inc., TNS 2021 Robocall Investigation Report at 4 (2021), <https://tnsi.com/forms/tns-2021-robocall-report/>. (TNS 2021 Robocall Report); *id.* at 8 (defining “high-risk” calls as calls that “typically cause emotional distress while the severity of harm often includes loss of money, invasion of privacy and identity theft, all hallmarks of a major crime.”).

³³ See TNS Comments at 6; see also Transaction Network Services, Inc., 2019 1H Robocall Investigation Report at 12 (2019), <https://tnsi.com/forms/tns-robocall-report-september-2019/> (TNS 2019 Robocall Report). While TNS’s report does not define “Tier 1 networks”, the Commission has defined Tier 1 carriers to include the handful of larger carriers. See, e.g., *United Telephone System Companies’ Permanent Cost Allocation Manuals for the Separation of Regulated and Nonregulated Costs*, Memorandum Opinion and Order, DA 91-1093, 6 FCC Rcd 5235, n.1 (1991) (“A

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have now had additional time to evaluate this comment and other information discussed below that predates adoption of the *Second Caller ID Authentication Report and Order* compared to the very short time period between USTelecom filing its proposal and adoption of the *Second Caller ID Authentication Report and Order*. In our preliminary view, this information supports revisiting the scope of the small voice service provider extension. We seek comment on this view and on how we should now consider relevant evidence that predates adoption of the *Second Caller ID Authentication Report and Order*.

10. With additional time to consider the issue, we now believe that evidence from Commission filings of providers subject to government-wide enforcement actions also supports a finding that a subset of small voice service providers are at heightened risk of originating a disproportionate number of illegal robocalls relative to their subscriber base. For example, in January 2020, the FTC sent letters to 19 providers regarding their possible involvement in “assisting and facilitating” unlawful robocalls.³⁵ Data submitted to the Commission reflect that most of these providers appear to fall under the Commission definition of “small voice service provider.” Of the 19 providers that received letters, five submitted FCC Form 477, and of those five, only one had more than 100,000 access lines.³⁶ Sixteen of the providers that received a January 2020 FTC letter also submitted an FCC Form 499. These forms, on average, showed end-user revenues of approximately \$3.4 million,³⁷ indicating that most of these 16 providers had fewer than 100,000 lines.³⁸ This additional information supports our proposed conclusion that a subset of small voice service providers are at heightened risk of disproportionately originating robocalls. We seek comment on the data and assumptions underlying this conclusion. Specifically, we seek comment on whether we can rely on FCC Form 477 line count data to determine whether providers fall within our 100,000 line small voice service provider definition and whether it is reasonable to conclude that FCC Form 499 revenue data is predictive of provider line counts. Are there other data we should consider?

11. We also seek comment on whether the proportion of robocall traffic originated by small voice service providers has increased since the adoption of the *Second Caller ID Authentication Report and Order* and, if so, whether it is because larger voice service providers are implementing STIR/SHAKEN in anticipation of the June 30, 2021, deadline, leading callers originating unlawful robocalls to migrate to different networks.³⁹ Several larger voice service providers have recently submitted statements that they are in the process of implementing, or have already implemented, STIR/SHAKEN in the IP portions of their networks.⁴⁰ Is the portion of robocall traffic attributable to

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Tier 1 carrier is defined as a local exchange carrier . . . that earns more than \$100 million in total company regulated annual revenues.”); TNS 2021 Robocall Report at 21 (listing AT&T, CenturyLink, Comcast, T-Mobile and Verizon as examples of “Tier 1 Carriers.”).

³⁴ TNS 2019 Robocall Report at 12.

³⁵ See Federal Trade Commission, FTC Warns 19 VoIP Service Providers That ‘Assisting and Facilitating’ Illegal Telemarketing or Robocalling Is Against the Law (Jan. 30, 2020), <https://www.ftc.gov/news-events/press-releases/2020/01/ftc-warns-19-voip-service-providers-assisting-facilitating>; Federal Trade Commission, VoIP Companies, Warning Letters Sent to VoIP Companies, <https://www.ftc.gov/about-ftc/foia/frequently-requested-records/voip-companies> (last visited Apr. 13, 2021).

³⁶ Based on confidentially filed Form 477 data.

³⁷ Based on confidentially filed Form 499 data.

³⁸ A provider with \$3.4 million in revenue would be realizing just \$2.83 in revenue per month per subscriber if it had exactly 100,000 subscribers. Because we believe \$2.83 to be unrealistically low, we think it reasonable to infer that these providers, on average, have fewer than 100,000 subscribers and a higher revenue per subscriber.

³⁹ See TNS 2021 Robocall Report at 11 (“Implementation of STIR/SHAKEN framework by AT&T, Comcast, T-Mobile and Verizon has likely resulted in the decrease of VoIP calls that are unwanted.”).

⁴⁰ See, e.g., *Wireline Competition Bureau Announces Seven Voice Service Providers Qualified for STIR/SHAKEN Exemption*, WC Docket Nos. 17-97, 20-68, Public Notice, DA 20-1533 (WCB Dec. 23, 2020) (identifying seven

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small voice service providers likely to increase further as larger voice service providers complete STIR/SHAKEN implementation?

12. Consumer complaints received by the Commission make clear that unwanted robocalls remain a vexing problem.⁴¹ We invite commenters to provide other information about trends in illegal robocalls. We also seek comment on the effect that the Commission's efforts have had on illegal robocalling in general and, specifically, on illegal robocalls originated by small voice service providers. The available evidence indicates that, at least in part due to the TRACED Act and Commission action, the percentage of STIR/SHAKEN-attested traffic has increased, with Transaction Network Services estimating that it had increased from 21 percent in January 2020 to 35 percent in December 2020.⁴² We seek comment on these data and trends in STIR/SHAKEN deployment, particularly among small voice service providers.

B. Proposed Curtailment of Extension for Small Voice Service Providers That Originate an Especially Large Amount of Traffic

13. In light of the foregoing data and additional time to consider USTelecom's submission, we propose shortening the small voice service provider extension for small voice service providers that originate an especially large amount of calls.⁴³ We seek comment on this proposal.

14. Although the Commission previously found that a two-year blanket extension for all small voice service providers was reasonable in part because they only serve a small percentage of subscribers,⁴⁴ we propose revisiting this conclusion and determining that it is not a sufficient basis for continuing to provide a two-year extension for all such providers. We seek comment on this proposal. In particular, given the evidence indicating a subset of small voice service providers are at heightened risk of originating a significant percentage of illegal robocalls,⁴⁵ in our preliminary view, a small quantity of subscribers should not alone be a sufficient basis for a two-year extension for all small voice service providers. We seek comment on this view.

15. We specifically propose shortening the extension for small voice service providers that originate an especially large amount of traffic, and we seek comment on this proposal. We believe such providers are more likely to originate unlawful robocalls because, to originate large-scale robocall

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voice service providers that submitted information the Wireline Competition Bureau found sufficient to show they met certain early implementation benchmarks).

⁴¹ In the first three months of 2021, the Commission received more than 47,000 unwanted call complaints, putting us on pace to exceed the 154,000 complaints we received in 2020. Federal Communications Commission, CGB – Consumer Complaints Data, <https://opendata.fcc.gov/Consumer/CGB-Consumer-Complaints-Data/3xyp-aqkj> (last visited Apr. 26, 2021). Youmail, a robocall prevention service, released data showing 4.9 billion robocalls in March 2021, up 6 percent from February 2021 and on pace for 54.3 billion robocalls for 2021, compared to 45.9 billion in 2020. See YouMail, Youmail Robocall Index, <https://robocallindex.com/> (last visited Apr. 26, 2021). Another robocall prevention service indicated that March 2021 saw a record number of “spam” calls, reaching 6.3 billion, greater than the previous monthly high in October 2020 of 6.1 billion and on pace to exceed 70 billion calls in 2021. See Cision, Robocall Record: 7.4 billion Spam Texts Surpass Total Robocalls by More than 1 Billion Messages in March 2021 (Apr. 1, 2021), <https://www.prnewswire.com/news-releases/robocall-record-7-4-billion-spam-texts-surpass-total-robocalls-by-more-than-1-billion-messages-in-march-2021--301260890.html>.

⁴² See 2021 TNS Report at 21.

⁴³ As discussed below, we propose only to shorten the small voice service provider extension, and not the other extensions the Commission previously granted that could also apply to certain small voice service providers. See *infra* para. 18.

⁴⁴ *Second Caller ID Authentication Report and Order* at 21-22, para. 44.

⁴⁵ See TNS 2021 Robocall Report at 21 (noting that “the cross-carrier traffic between the five largest US carriers . . . account for less than half of the calling volume”).

campaigns, it is necessary to originate a large number of calls. Further, we anticipate that rapid STIR/SHAKEN implementation by those small voice service providers that originate the most traffic is likely to be more beneficial than faster implementation by small voice service providers that originate fewer calls because providers that originate more traffic will authenticate more calls. In addition, in our preliminary view it is appropriate to tailor our alteration of the extension as narrowly as possible to those small voice service providers most likely to originate unlawful robocalls to avoid unnecessarily burdening small providers. We seek comment on this initial analysis. Are there additional reasons to curtail the extension specifically for small voice service providers that originate an especially large amount of traffic? Are there reasons that shortening the extension for this specific subset of small voice service providers would be especially harmful? Should we curtail the extension for different or additional subsets of small voice service providers?

16. To what degree would hastening STIR/SHAKEN implementation reduce unlawful robocalls, and how much would Americans benefit? When the Commission adopted the STIR/SHAKEN implementation mandate, it estimated the benefits would exceed \$13.5 billion per year and noted a host of specific benefits to consumers, providers, and the government.⁴⁶ The data above indicate that much of this benefit will not be realized if the subset of small voice service providers that are most likely to originate robocalls does not implement STIR/SHAKEN. We believe that such a significant public benefit justifies shortening the extension for this subset of small voice service providers under the TRACED Act's balancing test. We seek comment on the size of the benefit that will result from shortening the extension for such providers and our conclusion that the benefit justifies a shortened extension pursuant to the TRACED Act. We note that several third-party robocall monitoring and protection services believe there will be a substantial benefit to accelerating small voice service providers' STIR/SHAKEN implementation. For example, in its March 2021 report, Transaction Network Services argues that, given their disproportionate role originating robocalls, small voice service providers need to implement STIR/SHAKEN for the Commission's rules "to have a significant impact."⁴⁷ Similarly, Robokiller, a spam call and protection service, concluded in a February 2021 report that because "smaller carriers have exemptions lasting . . . until 2023 . . . [w]ithout a unified front from all carriers, STIR/SHAKEN cannot be completely effective."⁴⁸ We seek comment on these assertions.

17. We also seek comment on the burdens and barriers of implementing STIR/SHAKEN for the subset of small voice service providers for which we propose shortening the extension. Do these small voice service providers face less hardship to implement STIR/SHAKEN than other small voice service providers? Have implementation costs declined as more providers and vendors develop solutions to meet our June 30, 2021 deadline for larger voice service providers? Is accelerated implementation feasible? Are many small voice service providers already implementing STIR/SHAKEN even though the deadline is not until June 30, 2023? As of April 2021, 154 providers have obtained certificates from the Secure Telephone Identity Governance Authority (STI-GA), allowing them to participate in the exchange of authenticated traffic with other providers.⁴⁹ Does this number of providers with certificates suggest that some small voice service providers have begun the process of STIR/SHAKEN implementation? From 2014-2018, providers that make the initial long-distance call path choice for more than 100,000

⁴⁶ *First Caller ID Authentication Report and Order and Further Notice of Proposed Rulemaking*, 35 FCC Rcd at 3262-65, paras. 46-52.

⁴⁷ See TNS 2021 Robocall Report at 21. See also Letter of Stephen Augustino, Counsel, TNS, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97 at 2 (filed Jan. 21, 2020) ("The data suggest that while top carriers are making inroads in the fight against robocalls, VoIP providers and smaller regional carriers may need to take more aggressive action as bad actors shift focus to their networks.").

⁴⁸ See RoboKiller, *The Robocall Report: Yearly Insights for 2020* at 21 (2021), https://www.robokiller.com/robocall-insights/robocall_insights_2020.pdf.

⁴⁹ Brent Struthers, Director, STI-GA, STI-GA NANC Update at 2 (2021), <http://nanc-chair.org/docs/200415STIGANANCUpdate%20final.pptx>.

domestic retail subscriber lines were obligated to file rural call completion reports, and 55 providers filed such reports in 2017, implying that approximately 100 providers with fewer than 100,000 lines have already obtained certificates from the STI-GA.⁵⁰ To what extent did small voice service providers rely on a two-year extension in planning their network costs, and would shortening the extension unduly harm their reliance interests?⁵¹ Should we permit the full two year extension for any voice service provider in the subset who can document substantial reliance? What specific actions might qualify as reliance that should factor into our decision? We anticipate that reliance interests may be minimal because small voice service providers were put on notice that we might revisit USTelecom’s proposal at a later time, and we seek comment on this opinion.⁵² Do any identified burdens outweigh the benefits associated with requiring a subset of small voice service providers that is particularly likely to originate unlawful robocalls to implement STIR/SHAKEN more rapidly?

18. What costs would small voice service providers generally, and those specifically that originate an especially large amount of traffic, incur by accelerating their deployment to meet a deadline prior to June 30, 2023? USTelecom argues that small voice service providers that originate a “disproportionate” amount of traffic “are unlikely to have the same resource constraints the Commission cited” in adopting the two-year small voice service provider extension.⁵³ We seek comment on this assertion. For example, do small voice service providers that originate an especially large amount of traffic have equipment that is generally newer and able to handle greater traffic volumes and, therefore, will likely require fewer resources to implement STIR/SHAKEN?⁵⁴ Are their networks more streamlined and therefore do not require the time and effort to implement STIR/SHAKEN across multiple IP architectures?⁵⁵ Would such providers spread their STIR/SHAKEN implementation costs over fewer pieces of equipment per dollar of revenue?

19. We propose curtailing only the small voice service provider extension for entities that originate a substantial amount of traffic and not shortening or eliminating any other extensions that the Commission adopted. We seek comment on this proposal. In our preliminary view, this approach is

⁵⁰ See *Rural Call Completion*, WC Docket No. 13-39, Report, 32 FCC Rcd 4980, 4985, para. 12 (WCB 2017) (noting that approximately 55 providers filed rural call completion reports over the prior two years); 47 CFR § 64.2101 (defining “covered providers” required to file reports as any provider that “makes the initial long-distance call path choice for more than 100,000 domestic retail subscriber lines, counting the total of all business and residential fixed subscriber lines and mobile phones and aggregated over all of the providers’ affiliates”). The Commission eliminated this reporting requirement in 2018. See *Rural Call Completion*, WC Docket No. 13-39, Second Report and Order and Third Further Notice of Proposed Rulemaking, 33 FCC Rcd 4199, 4224-27, paras. 58-64 (2018).

⁵¹ See *FCC v. Fox Television Stations*, 556 U.S. 502, 515-16 (2009) (describing when an agency must take reliance interests into account).

⁵² See *Uniendo a Puerto Rico Fund and the Connect USVI Fund et al.*, WC Docket Nos. 18-143, 10-90, 14-58, Report and Order and Order on Reconsideration, 34 FCC Rcd 9109, 9156-8, para. 89 (2019) (noting that changed circumstances can attenuate reliance interests and reliance interests can be outweighed by the benefits of a revised policy).

⁵³ See USTelecom Sept. 18 *Ex Parte* at 6.

⁵⁴ See Petition of AT&T for Extension of Implementation Deadline, WC Docket No. 17-97, at 4-5 (filed Nov. 20, 2020) (AT&T Extension Request) (arguing that the “age and limited capabilities” of certain IP-capable portions of its networks will take time to upgrade to STIR/SHAKEN).

⁵⁵ Cf. Letter of Randy Clarke, Vice President, Federal Regulatory Affairs, Lumen, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-97 at 2 (filed Feb. 5, 2021) (“Lumen noted that its network is comprised of several different networks, adding to the overall complexity of implementation because the software must be tested and work properly on all networks when it is introduced.”); AT&T Extension Request at 5 (“[I]ntroducing new technology to a network as large and complex as AT&T’s can be expected to encounter technical issues and delays that are unknowable at this stage.”).

appropriate because it avoids imposing burdens on this subset of small voice service providers greater than the burdens we impose on the largest voice service providers. The TRACED Act directs that we “shall grant” an extension to a voice service provider that materially relies on a non-IP network and the extension must extend “until a call authentication protocol has been developed for calls delivered over non-internet protocol networks and is reasonably available.” Because we have not yet made such a finding, we cannot curtail the non-IP network extension.⁵⁶

C. Defining Small Voice Service Providers That Are Most Likely to be the Source of Unlawful Robocalls

20. We seek comment on how to define small voice service providers that originate an especially large amount of calls and thus are at heightened risk of being a source of unlawful robocalls. In considering possible definitions, we seek to identify one or more definitional prongs that most accurately identify, in an administrable manner, those small voice service providers most likely to originate a significant quantity of unlawful robocalls. For each possible definitional criterion for which we seek comment below, we seek comment on whether it should be the sole definition or whether it should be one of multiple prongs of a definition. If we employ multiple prongs in our definition, we seek comment on whether a small voice service provider that meets any of multiple prongs should be excluded from the full extension (i.e., we would use “or” between multiple prongs), or whether only a small voice service provider that meets all of the prongs should be excluded from the full extension (i.e., we would use “and” between multiple prongs).

21. *Originates a Significant Number of Calls Per Day for Any Single Line on Average.* We seek comment on whether we should exclude from the full extension a small voice service provider that originates an unusually high number of calls per day on a single line. For example, USTelecom proposes that we exclude from the full extension a small voice service provider that originates more than 500 calls per day for any single line in the normal course of business.⁵⁷ We seek comment on this suggestion and potential alternatives. Is a high volume of traffic originating from a single line evidence of a heightened risk that a provider is likely to be originating a high volume of unlawful robocalls? Do small voice service providers’ customers often originate lawful calls at such a high volume from a single line?

22. If we were to set a numerical threshold, we seek comment on whether the appropriate numerical call threshold is 500 calls per day or another numerical threshold. USTelecom argues that its 500 call threshold is meant to distinguish between “the number of calls that a particularly prolific subscriber could make in a given day and more automated technology” indicative of illegal robocalling.⁵⁸ Does a 500 call per day threshold accurately capture this dividing line? Would an alternative call threshold better identify those voice service providers most likely to be the source of unlawful robocalls? For example, would a 1,000 calls per day threshold ensure that small voice service providers unlikely to be the source of unlawful robocalls would continue to benefit from a two-year extension? Would a lower threshold of, for example, 250 calls ensure that we capture all small voice service providers that are likely to originate a significant number of illegal robocalls?

23. We propose that if we adopt a definition based on calls per day for a single line, we would employ the term “on average” rather than “in the normal course of business” because we preliminarily believe the former is more precise. We seek comment on this view and on the meaning of “in the normal course of business.” We seek comment on how we should measure the calls per day on average. Over what period would we require small voice service providers to calculate the average? Should the average be based on sporadic samples or a single continuous period? Should we exclude certain time periods, such as weekends or holidays? Instead of average calls per day, should we examine

⁵⁶ TRACED Act § 4(b)(5)(B).

⁵⁷ See USTelecom Sept. 23 *Ex Parte* Letter at 4 & n.5.

⁵⁸ USTelecom April 15 *Ex Parte* at 1-2.

the median number of calls each day over a particular period? What are the advantages and disadvantages of each approach?

24. Instead of examining the average number of calls over time, should we look at small voice service providers that reach a call threshold on a single line on a single day? Would this approach provide additional certainty and reduce the possibility for gaming? Rather than looking at the average number of calls on a single line, should we look at an average—or other measures—across a larger number of lines? If so, what call volume metric should we use and why? For example, could we look at the number of calls per line averaged over all lines or those lines with more originating than terminating calls? Would an approach that focuses on the number of calls averaged over multiple lines be less likely to be subject to manipulation than a test that looks at the total number of calls over a single line?

25. If we adopt a numerical threshold of calls, we seek comment on whether we should exclude calls from certain entities that have a valid business reason to make a large number of calls, so that certain calls would not count toward any numerical threshold we establish. For example, should we exempt calls from doctor's offices, schools, or businesses such as insurance companies? Would a small voice service provider be able to determine whether its customer fell within any of the categories we adopt? We also seek comment on whether we should exempt from the threshold calls that fall under an exemption pursuant to the Telephone Consumer Protection Act of 1991 (TCPA).⁵⁹ We seek comment on whether calls that meet some or all of the TCPA exemptions should not count against any numerical call threshold we adopt. Are the interests served by the TCPA exemptions the same as or similar to the interests served by exempting such calls from the call threshold?

26. *Receives More than Half Its Revenues from Customers Purchasing Non-Mass Market Services.* We seek comment on whether we should shorten the extension for small voice service providers that receive more than half their revenue from customers purchasing services that are not mass-market services, as suggested by USTelecom.⁶⁰ Do commenters agree that the proportion of revenue from non-mass market services is a good proxy for identifying small voice service providers that are likely to originate an especially large amount of traffic and, therefore, likely to originate unlawful robocalls? USTelecom argues that its proposal was “intended to be narrow and capture those providers who target enterprise and other non-consumer customers as a key part of their business.”⁶¹ This approach assumes that small voice service providers that mostly sell specialized services, and especially business

⁵⁹ The TCPA prohibits, without the prior express consent of the called party, any call using an automatic telephone dialing system or an artificial or prerecorded voice to any telephone number “assigned to a . . . cellular telephone service, . . . or any service for which the called party is charged for the call” unless a statutory exemption applies. *See* 47 U.S.C. § 227(b)(1)(A). The TCPA also prohibits initiating “any telephone call to any residential telephone line using an artificial or prerecorded voice to deliver a message without the prior express consent of the called party” unless a statutory exception applies or the call is “exempted by rule or order by the Commission under [section 227(b)(2)(B)].” *See id.* § 227(b)(1)(B). The TCPA exempts from these prohibitions calls for emergency purposes. *See id.* §§ 227(b)(1)(A), (B); *see also* 47 CFR § 64.1200(f)(4) (definition of “emergency purposes”). In December 2020, the Commission, in an Order implementing Section 8 of the TRACED Act, codified certain existing TCPA exemptions, modified others, and left several unchanged. *See* TRACED Act § 8(b); *Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991*, Report and Order, FCC 20-186, 35 FCC Rcd 15118, 15192, para 10 (2020) (codifying exemption for calls made to wireless numbers, amending exemptions for “(1) non-commercial calls to a residence; (2) commercial calls to a residence that do not include an advertisement or constitute telemarketing; (3) tax-exempt nonprofit organization calls to a residence; and (4) HIPAA-related calls to a residence,” and making no changes to existing exemptions for calls to “(1) package delivery-related calls to a wireless number; (2) financial institution calls to a wireless number; (3) healthcare-related calls to a wireless number; and (4) inmate calling service calls to a wireless number;” or cellular carrier calls to their own subscribers).

⁶⁰ USTelecom Sept. 23 *Ex Parte* at 2 n.5, 4.

⁶¹ *See* USTelecom Apr. 15 *Ex Parte* at 1.

services, are more likely to originate an especially large amount of traffic and thus are at greater risk of originating a high volume of unlawful robocalls. Do commenters agree with this assumption?

27. We seek comment on how to measure revenue. Should we measure only revenue attributable to voice service, revenue from all telecommunications and information services, including wholesale services, or some other combination? If only revenue attributable to voice service, should we measure certain sub-categories of voice service such as interstate, international, or toll? Are robocalls likely to originate out of state and, if so, should we exclude intrastate revenue if such revenue is unlikely to be associated with illegal robocalling?

28. We seek comment on whether half of revenue is an appropriate dividing line. For example, should we adopt a 75 percent non-mass market revenue threshold? Would such a threshold better balance the interest in shortening the extension for those voice service providers most likely to initiate unlawful robocalls with the harm of shortening the extension for those providers least likely to do so? Would a lower enterprise revenue threshold such as 25 percent ensure we capture all small voice service providers likely to originate a large number of illegal robocalls while placing a limited burden on other small voice service providers?

29. In determining a voice service provider's share of non-mass market revenue, we seek comment on whether it would be more appropriate to measure revenue from non-mass market customers, non-mass market services, or a combination of the two. For example, should we only measure revenue from non-mass market services attributable to non-mass-market customers or attributable to all customers? The *Second Caller ID Authentication Report and Order* barred voice service providers from imposing line item charges for STIR/SHAKEN implementation on "consumer subscribers" (defined as "residential mass-market subscribers") and "small business customer subscribers."⁶² In doing so, it defined mass market services as "services marketed and sold on a standardized basis to residential customers, small businesses and other end-user customers."⁶³ Should we adopt these definitions to measure mass market revenue so that if a small voice service provider's mass-market revenue was less than 50 percent of total revenue, it would meet our proposed revenue criterion?⁶⁴ Should we instead adopt a slightly different definition of mass-market customer or service from proceedings where we examined voice product markets?⁶⁵ Would another definition be appropriate?

30. *Other Alternative or Additional Criteria.* We also seek comment on adopting criteria other than, or in addition to, calls per line and/or revenue to determine when a small voice service provider is particularly likely to be the source of unlawful robocalls. Should we shorten the extension for those small voice service providers that offer certain service features to customers commonly used for unlawful robocalls, such as the ability to display any number in the called party's caller ID,⁶⁶ or to upload

⁶² *Second Caller ID Authentication Report and Order* at 62, 63-64, paras. 126, 129; 47 CFR § 64.6307(a)-(b).

⁶³ *Second Caller ID Authentication Report and Order* at 64, para. 129 n.451 (quoting *Restoring Internet Freedom*, WC Docket No. 17-108, Declaratory Ruling, Report and Order, and Order, 33 FCC Rcd 311, 318, para. 20 n.58 (2018)).

⁶⁴ See *USTelecom April 15 Ex Parte* at 1 n.4 ("The Commission could use the definition of mass market already in the *Second Report & Order* should it adopt this exception, which would include small business but not larger, higher-volume business customers.").

⁶⁵ See, e.g., *SBC Communications Inc. and AT&T Corp. Applications for Approval of Transfer of Control*, WC Docket No. 05-65, Memorandum Opinion and Order, FCC 05-183, 20 FCC Rcd 18290, 18336, para. 82 n.243 (2005) (identifying "mass market" customers as "residential and small business customers that purchase standardized offerings of communications services"); *Petition for Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket No. 09-135, Memorandum Opinion and Order, FCC 10-113, 25 FCC Rcd 8622, 8649, para. 51 (2010).

⁶⁶ See 2021 TNS Report at 10. Spoofing caller ID information is not illegal on its own, and is only illegal if done "with the intent to defraud, cause harm, or wrongfully obtain anything of value." 47 USC § 227(e)(1).

and broadcast a prerecorded message?⁶⁷ Should we shorten the extension for small voice service providers that offer specific implementations of customized caller ID display, such as area code or neighborhood spoofing (i.e., spoofing the area code or NXX of the called party)?⁶⁸ Should we curtail the extension for those small voice service providers that offer customers autodialing functionality or whose call durations are very short? If so, what should that duration be?⁶⁹

31. Is the relative proportion of originating to terminating traffic, and not just the absolute level of originating traffic, relevant to whether a voice service provider is likely to be originating unlawful robocalls? If so, should we shorten the extension for small voice service providers that have a certain ratio of originating to terminating traffic? If so, what should that ratio be?⁷⁰

32. Are “all-IP” small voice service providers more likely to be the source of unwanted robocalls? If so, should we curtail the extension for all-IP small voice service providers, particularly if their STIR/SHAKEN implementation costs are lower?⁷¹ How would we define “all-IP” under this approach? How should we prevent voice service providers from gaming such a definition by retaining a small TDM network or a TDM network element?

33. Should we shorten the extension for possible or actual violations of our rules or the law? How would we implement such a standard during the pendency of the extension period? Should we curtail the extension for any small voice service providers on the red-light list, which lists entities that are delinquent in debts owed to the Commission?⁷² Should we curtail the extension for small voice service providers subject to a federal agency action or letter related to the origination or transmission of unlawful

⁶⁷ See USTelecom April 15 *Ex Parte* at 2.

⁶⁸ See 2021 TNS Report at 4 (“Use of same area code and prefix saw a decrease of 43% on a per subscriber basis from 2019 to 2020, while use of the same metropolitan area codes to call a subscriber . . . has increased 17% in the same period.”).

⁶⁹ For example, ZipDX argues that if originating call duration is less than 120 seconds on average, 15 percent of calls are less than 30 seconds and 50 percent of calls are less than 60 seconds, it is likely that such traffic is coming from an autodialer, and asserts that “[t]he legitimate situations where auto-dialed calls would come from foreign sources using USA telephone numbers” are limited. Letter from David Frankel, ZipDX, WC Docket No. 17-97, at 0, 4 (rec. Mar. 11, 2021); see also Complaint, *United States v. Nicholas Palumbo, et al.*, Civ. Action No. CV20-473, at 12, para. 28 (E.D.N.Y. Jan. 28, 2020) (“Defendants regularly transmit massive volumes of short duration calls. For example, over 23 days in May and June of 2019, TollFreeDeals transmitted more than 720 million calls. Of those calls, more than 425 million, or 59% of the total calls, lasted less than one second . . .”).

⁷⁰ Cf. 47 CFR § 61.3(bbb) (defining a carrier engaged in access stimulation as a carrier that has “interstate terminating-to-originating traffic ratio of at least 3:1 in a calendar month.”).

⁷¹ See, e.g., Alaska Communications Services Reply Comments, WC Docket Nos. 17-97, 20-67, at 6 (rec. May 29, 2020) (arguing that its STIR/SHAKEN compliance costs are high because “Alaska Communications serves only a few thousand VoIP customers today.”). We acknowledge that hybrid voice service providers have separate compliance duties with respect to the TDM portions of their networks and are subject to rules regarding extensions and exemptions from that duty. See 47 CFR §§ 64.6303 (Caller ID authentication in non-IP networks); 64.6304(d) (extension for non-IP networks); 64.6306(b) (exemption for non-IP networks). Here, we are seeking comment on whether hybrid voice service providers have a higher STIR/SHAKEN compliance burden with respect to the IP portions of their networks compared to all-IP voice service providers.

⁷² See *Metropolitan Nashville Public Schools Nashville, TN, Schools and Libraries Universal Support Mechanism*, Order, DA 18-1283, 33 FCC Rcd 12334, 34, para 4 (WCB 2018) (“The Commission’s red light rule, implementing the Debt Collection Improvement Act of 1996 (DCIA), requires that action be withheld on any application or other request for benefits made by an entity that is delinquent in debts owed to the Commission and dismissal of such applications or requests if the delinquent debt is not resolved.” (internal citations omitted)); see also *Amendment of Parts 0 and 1 of the Commission’s Rules/Implementation of the Debt Collection Improvement Act of 1996 and Adoption of Rules Governing Applications or Requests for Benefits by Delinquent Debtors*, Report and Order, 19 FCC Rcd 6540 (2004) (adopting red light rule); 47 CFR § 1.190(b)(2).

calls?⁷³ For example, should we authorize the Enforcement Bureau to curtail the extension for small voice service providers it notifies of illegal traffic under our rules?⁷⁴ The two-year extension relates to the duties of voice service providers as the originators of traffic, but a number of providers have been subject to inquiries and enforcement actions in their role as gateway or intermediate providers.⁷⁵ We seek comment on whether these kinds of inquiries and enforcement actions should bear on a small voice service provider's extension length, and whether that should extend to enforcement associated with traffic the provider merely transmitted and did not originate.⁷⁶ Should we shorten the extension for those small voice service providers that the Commission, in consultation with the Industry Traceback Group, has determined are "uncooperative" or subject to a certain threshold number of traceback requests?⁷⁷ How would we implement such an approach? For example, should the Industry Traceback Group provide the Commission with a list of providers that meet this criterion by a date certain?

34. Are voice service providers with a higher revenue per customer more likely to be the source of unlawful robocalls? If so, should we adopt a definition, or a prong of a definition, based on revenue per customer? If so, what should the threshold be? Should we examine small voice service providers with relatively high percentages of revenue in certain categories on their FCC Form 499 or similar submissions to the Commission? Are high levels of interstate, international, or toll revenue compared to total revenues indicative of small voice service providers likely to be the source of unlawful robocalls?

35. We seek comment generally on whether small voice service providers track the information for the definitional criteria that we may adopt. For example, do voice service providers retain and track revenue and calls-per-line data? Can the Commission rely on data voice service providers track and submit for other purposes? Could we rely on revenue data from FCC Form 499 and line count information from FCC Form 477 to measure revenue or line-count-related criteria by market segment?⁷⁸ If voice service providers do not track data necessary to determine whether they fall within the criteria we

⁷³ See, e.g., Letter from Rosemary C. Harold, Chief, Enforcement Bureau, FCC, and Lois C. Greisman, Associate Director, Division of Marketing Practices, FTC, to Chris Cordero and Scott Kettle, Connexum (Apr. 3, 2020) (Connexum Letter); Federal Trade Commission, *Warning Letters Sent to VoIP Companies*, <https://www.ftc.gov/about-ftc/foia/frequently-requested-records/voip-companies> (last visited Apr. 13, 2021); Complaint, *United States v. Nicholas Palumbo, et al.*, Civ. Action No. CV20-473 (E.D.N.Y. Jan. 28, 2020).

⁷⁴ See USTelecom April 15 *Ex Parte* at 2 (suggesting that the Commission go as far as to eliminate the extension for small voice service providers notified by the Enforcement Bureau of illegal traffic pursuant to 47 CFR § 64.1200(n)(2)).

⁷⁵ See, e.g., Connexum Letter at 1 ("We have determined that Connexum is apparently routing and transmitting Novel Coronavirus Disease (COVID-19) scam robocall traffic originating from VoIPMax.").

⁷⁶ *Second Caller ID Authentication Report and Order* at 12, para. 23 (defining "providers of voice service" on a call-by-call, not entity-by-entity basis).

⁷⁷ See USTelecom April 15 *Ex Parte* at 2 (arguing that "providers that have showed up as responsible for illegal calls through traceback and other investigations should no longer enjoy the extension."). The Commission recently required all voice service providers, not just those that are required to implement a robocall mitigation program, to cooperate with traceback requests from the Commission, civil and criminal law enforcement, and the Industry Traceback Consortium. See *Call Blocking Fourth Report and Order*, 35 FCC Rcd at 15227, para. 15. The Industry Traceback Consortium also has the authority to designate certain providers as "uncooperative." See *Implementing Section 13(d) of the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act (TRACED Act)*, Report and Order, 35 FCC Rcd 7886, 7897, para. 28 (EB 2020) (determining that "it is reasonable to characterize as 'non-cooperative' a voice service provider that refuses to identify the source of unlawful traffic.").

⁷⁸ For example, providers are required to submit line count data on FCC Form 477 separated out by (1) consumer and (2) business/government. See FCC, FCC Form 477 Instructions at 23 (2020), <https://us-fcc.app.box.com/v/Form477Instructions>.

adopt, would it be overly burdensome for them to begin to track this data solely for the purpose of determining whether they qualify for a one or two-year extension?

36. *Examination Period.* We propose that any criteria we adopt would apply to small voice service provider operations prior to the effective date of our Order released pursuant to this Further Notice. For example, if we adopted a criterion based on the number of calls per line, the relevant time period to determine if the call threshold is met would be the number of calls per line during a period prior to the effective date of such Order. We seek comment on this general approach and what the relevant period should be. For example, should we look at voice service provider operations in the 120 days prior to the date the Order is adopted? Would such an approach give small voice service providers sufficient time to gather the necessary information and ensure that a sufficiently representative sample of these providers' operations are examined? Would another time period be more appropriate? Would tying the relevant time period to the effective date of a later Order permit small voice service providers to game the rule by modifying their behavior after release of this Further Notice? Would such gaming be undesirable if it had the effect that a voice service provider ceased meeting criteria showing it was likely to be the source of illegal robocalls?

37. In addition, we propose that small voice service providers that did not meet the criteria during the examination period would not be subject to a shortened extension if they meet the criteria at a later date. We propose this approach given the limited time between any Order we release subsequent to this notice and the June 30, 2023, end date of the original two-year extension. We seek comment on this proposal.

D. Length of Time: One-Year Reduction

38. We propose to shorten the extension for those small voice service providers that originate an especially large amount of traffic from two years to one year, with a new compliance deadline of June 30, 2022. We seek comment on this proposal. We seek specific comment on whether a one-year extension is a "reasonable period of time" for this subset of small voice service providers to implement STIR/SHAKEN given the "burdens and barriers to implementation" that they face and the likelihood they are the source of illegal robocalls. We anticipate that a one-year extension balances the public interest in reducing unlawful calls while allowing affected providers sufficient time to implement STIR/SHAKEN. For example, we note above that affected providers may have a lower burden to implement STIR/SHAKEN than other small voice service providers. If so, do such providers face less hardship than other small voice service providers? Even if they do not have a lower burden, do the significant benefits of requiring those small voice service providers most likely to be responsible for illegal robocalls to comply with STIR/SHAKEN mean that a one-year extension for those providers is nevertheless a "reasonable period of time"?

39. Should we reduce the extension by more or less than our proposal? Would a shorter reduction in the extension (e.g., January 1, 2023) still provide a material benefit in the form of reduced illegal robocalls compared to the current two-year extension? Would a greater reduction in the extension (e.g., a compliance deadline of January 1, 2022) be practical, given the timing of any subsequent Order? Would it unduly impact affected providers' reliance interests? Does the fact that affected providers could seek a waiver if they meet the Commission's waiver standard ameliorate any identified concerns about whatever implementation deadline we adopt?⁷⁹ Should we direct the Wireline Competition Bureau to rule on any waiver request within 90 days of submission to address these concerns and any potential reliance interests?

⁷⁹ The Commission may exercise its discretion to waive a rule where the particular facts at issue make strict compliance inconsistent with the public interest. *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990). In considering whether to grant a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

40. We also seek comment on alternative approaches to altering the extension period. For example, instead of measuring the reduction against the June 30, 2021, compliance deadline, should we set the new compliance deadline to a certain interval following the effective date of any Order released pursuant to this notice? Under this approach, affected small voice service providers would be required to implement STIR/SHAKEN in the IP portions of their networks a certain number of days following the Order's effective date. If we adopt this approach, what should the appropriate interval be? Are there other approaches we should consider? For example, should we set the end of the extension for affected providers to the later of (1) a specific date (e.g., June 30, 2022) or (2) a certain number of days following the effective date of the Order released pursuant to this notice? How relevant is the timing of the Order to the approach we choose?

E. Ensuring Compliance

41. We seek comment on how to monitor and evaluate compliance by the small voice service providers that are subject to the proposed curtailed extension. In particular, we seek comment on small voice service providers' duty to notify the Commission of their updated extension status and whether they should submit data demonstrating that status.

42. *Notification of Extension Status.* First, we propose relying on the current rule requiring voice service providers to update the Commission on the term and type of their extension and when they have implemented STIR/SHAKEN.⁸⁰ This rule, by its terms, would require small voice service providers subject to any shortened extension we adopt to: (1) within ten business days of the effective date of any Order we adopt, update their certifications and associated filings indicating that they are subject to a shortened extension; and (2) further update their certifications and associated filings within ten business days of completion of STIR/SHAKEN implementation in the IP portions of their networks. Those small voice service providers not subject to a shortened extension would not have to update their certifications and associated filings. We seek comment on this proposal and whether any clarifications to our rules are necessary. We also seek comment on whether and how we should modify the existing rule. For example, should we provide more than ten days following the effective date of any Order we adopt for small voice service providers subject to a shortened extension to update their certifications? Should we adopt a mechanism to notify the public of the results of the certification process? If so, what should that mechanism be?⁸¹ Are there any steps that we should take to reduce the reporting burden for small voice service providers?

43. *Additional Data.* We seek comment on whether we should require some or all small voice service providers to submit data demonstrating whether they meet the criteria we adopt. For example, should we require voice service providers to submit data on the average number of calls per day or non-mass market revenue if we adopt one or both of these criteria? If we adopt qualitative criteria such

⁸⁰ *Second Caller ID Authentication Report and Order* at 45, para. 83; 47 CFR § 64.6305(b)(2)(i). By June 30, 2021, voice service providers that have not implemented STIR/SHAKEN must certify whether they are subject to an extension and state the "type" of extension (e.g., small voice service provider extension). Voice service providers must also update their certifications and filings in the FCC's Robocall Mitigation Database portal within ten business days of any change, including whether an extension no longer applies. *Second Caller ID Authentication Report and Order*, at 49, para. 93; 47 CFR § 64.6305(b)(5).

⁸¹ For example, the Wireline Competition Bureau routinely publishes lists of carriers that accept offers of high cost support. See, e.g., *Wireline Competition Bureau Authorizes 186 Rate-of-Return Companies To Receive an Additional \$65.7 Million Annually In Alternative Connect America Cost Model Support to Expand Rural Broadband*, Public Notice, WC Docket No. 10-90, 34 FCC Rcd 2780 at 1 (WCB 2019) (noting that a spreadsheet list of carriers that accepted the offer is available on the Commission website); see also *Public Safety and Homeland Security Bureau Announces Publication of The List of Equipment and Services Covered by Section 2 of the Secure Networks Act*, Public Notice, WC Docket No. 18-89, DA 21-309 at 1 (PSHSB Mar. 12, 2021) (publishing a list of communications equipment and services that are "deemed to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons").

as curtailing the extension for those voice service providers that offer customers the ability to modify the outgoing caller ID information, what sort of information should we require voice service providers to submit? We seek comment generally on the benefits and burdens of data submission. We are cognizant of the importance of minimizing burdens on small voice service providers where possible. Should we therefore avoid requiring voice service providers to submit data by relying on data already in our possession to monitor compliance? For example, should we rely on existing line and revenue data, e.g., from FCC Forms 477 and 499 for those providers? If we rely on already submitted data, should we publicly release a list of small voice service providers that we believe are subject to a shortened extension, and provide an opportunity for such parties to file objections? If we rely on already submitted data for at least some voice service providers, should these providers not be required to submit the certification updates described above?

F. Legal Authority

44. We believe the Commission has authority for curtailing the extension for a subset of small voice service providers under section 4(b)(5)(A)(ii) of the TRACED Act. That section gives us authority to grant extensions of the caller ID authentication implementation deadline “for a reasonable period of time” upon a finding of undue hardship.⁸² Under that section, we granted the current two-year small voice service provider extension that we now propose to modify.⁸³ We believe that, in considering whether a hardship is “undue” under the TRACED Act, as well as whether an extension is for a “reasonable period of time,” it is appropriate to balance the hardship of compliance due to the “the burdens and barriers to implementation” faced by a voice service provider or class of voice service providers with the benefit to the public of implementing STIR/SHAKEN expeditiously; and that, consequently, we have the authority to grant a shorter extension for voice service providers that present a higher risk of originating illegal robocalls or that may also face a lesser hardship than other small voice service providers. We seek comment on this interpretation as well as any alternatives.

45. Finally, we acknowledge that the Commission has a duty under the Administrative Procedures Act (APA) when it changes direction, as we propose to do here, to explain the reasons for that change. Specifically, while we do not need to demonstrate why the reasons for a shortened extension for a subset of small voice service providers are “better than the reasons” for a two year extension for all small voice service providers, we must show that there are “good reasons” for our change, and that the change is permissible under the relevant statute; in this case, the TRACED Act.⁸⁴ As explained above, we propose to rely both on information that postdates the *Second Caller ID Authentication Report and Order* and on our reevaluation of preexisting information that the Commission had very limited time to consider in the short period between USTelecom’s proposal and adoption of the *Second Caller ID Authentication Report and Order*. The evidence thus far indicates that a subset of small voice service providers is originating a large and increasing quantity of illegal robocalls; and in our preliminary view a shortened extension for a subset of such providers is justified under our proposed interpretation of the TRACED

⁸² See TRACED Act § (4)(b)(5)(A)(ii).

⁸³ *Second Caller ID Authentication Report and Order*, at 22-23, para. 45 (setting the extension for “no more [time] than necessary” in order to “combat the scourge of illegal caller ID spoofing as quickly as possible.”); *see also id.*, at 23, para. 46 (“In the interest of promoting ubiquitous STIR/SHAKEN implementation, we decline at this time to grant a longer extension for small voice service providers . . . We find that a longer extension would discourage the swift deployment of effective vendor solutions and slow the deployment of STIR/SHAKEN to the detriment of consumers.”).

⁸⁴ See *Protecting and Promoting the Open Internet*, Report and Order on Remand, Declaratory Ruling and Order, GN Docket No. 14-28, 30 FCC Rcd 5601, 5745, para. 335 (2015) (quoting *Fox*, 556 U.S. at 515). We note that the APA imposes other requirements on Commission action, such as the requirement to base its decisions on “substantial evidence,” but we do not seek comment on that or other well-grounded obligations here. See *FiberTower Spectrum Holdings, LLC v. FCC*, 782 F.3d 692, 700 (D.C. Cir. 2015) (quoting *Ctr. For Auto Safety v. Fed. Highway Admin.*, 956 F.2d 309, 314 (D.C. Cir 1992) (citing the substantial evidence standard).

Act. We seek comment on this analysis given the evidence already in the record and in light of any additional evidence that parties may file.

IV. PROCEDURAL MATTERS

46. *Initial Regulatory Flexibility Analysis.* As required by the RFA, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in the *Third Further Notice of Proposed Rulemaking (Further Notice)*. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. Comments must be filed by the deadlines for comments on the *Further Notice* indicated on the first page of this document and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this Call Authentication Further Notice of Proposed Rulemaking to the IRFA, to the Chief Counsel for Advocacy of the SBA.⁸⁵

47. *Paperwork Reduction Act.* The *Further Notice* contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

48. *Ex Parte Presentations—Permit-But-Disclose.* The proceeding this *Further Notice* initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission's *ex parte* rules.⁸⁶ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with section 1.1206(b) of the Commission's rules. In proceedings governed by section 1.49(f) of the Commission's rules or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.⁸⁷

49. *Comment Filing Procedures.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

⁸⁵ *See* 5 U.S.C. § 603(a).

⁸⁶ 47 CFR §§ 1.1200 *et seq.*

⁸⁷ 47 CFR § 1.49(f).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing ECFS: <https://www.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE, Washington, DC 20554

50. Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020). <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

51. Pursuant to section 1.49 of the Commission's rules, 47 CFR § 1.49, parties to this proceeding must file any documents in this proceeding using the Commission's Electronic Comment Filing System (ECFS): <http://apps.fcc.gov/ecfs/>.

52. *People with Disabilities.* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

53. *Contact Person.* For further information about the *Further Notice*, contact Alexander Hobbs, Attorney Advisor, Competition Policy Division, Wireline Competition Bureau, at (202) 418-7433 or Alexander.Hobbs@fcc.gov.

V. ORDERING CLAUSES

54. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 4(j), and 227b of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), and 227b, that this *Third Further Notice of Proposed Rulemaking* IS ADOPTED.

55. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference information Center, SHALL SEND a copy of this *Third Further Notice of Proposed Rulemaking*, including the Initial Regulatory Flexibility Analysis (IRFA), to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities by the policies and rules proposed in this *Third Further Notice of Proposed Rulemaking (Further Notice)*. The Commission requests written public comments on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments provided on the first page of the *Further Notice*. The Commission will send a copy of the *Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

A. Need for, and Objectives of, the Proposed Rules

2. In order to continue the Commission's work combating illegal robocalls, the *Third Further Notice of Proposed Rulemaking (Further Notice)* proposes to accelerate the date by which small voice service providers that originate an especially large amount of call traffic, and thus are at particular risk of originating unlawful robocalls, must implement STIR/SHAKEN. The *Further Notice* proposes finding that shortening the extension is necessary because a subset of small voice service providers originate a disproportionate amount of robocalls and seeks comment on how to define this scope of entities.⁴ The *Further Notice* proposes shortening the STIR/SHAKEN implementation extension from two years to one year for such entities.⁵ The *Further Notice* seeks comment on these proposals, and whether we should modify existing rules or adopt new rules to monitor compliance.⁶

B. Legal Basis

3. The *Further Notice* proposes to find authority for the proposed rules under section 4(b)(5)(A)(ii) of the TRACED Act.⁷ Section 4(b)(5)(A)(ii) gives us authority to grant extensions of the caller ID authentication implementation deadline "for a reasonable period of time" upon a finding of undue hardship.⁸ Under that section, we granted the small provider extension we now propose to curtail, but did not explicitly interpret the meaning of the term "reasonable" in the context of that extension.⁹ The *Further Notice* proposes concluding that, under the TRACED Act, "reasonable" means that in determining the length of any extension, we must balance the hardship faced by a provider or class of providers with the benefit of implementing STIR/SHAKEN expeditiously; and that, consequently, we

¹ See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² See 5 U.S.C. § 603(a).

³ See 5 U.S.C. § 603(a).

⁴ *Supra*, paras. 7-10.

⁵ *Supra*, para. 6.

⁶ *Supra*, paras. 39-41.

⁷ *Supra*, para. 42.

⁸ TRACED Act § (4)(b)(5)(A)(ii).

⁹ *Second Caller ID Authentication Report and Order*, at 22-23, para. 45 (setting the extension for "no more [time] than necessary" in order to "combat the scourge of illegal caller ID spoofing as quickly as possible."); see also *id.*, at 23, para. 46 ("In the interest of promoting ubiquitous STIR/SHAKEN implementation, we decline at this time to grant a longer extension for small voice service providers . . . We find that a longer extension would discourage the swift deployment of effective vendor solutions and slow the deployment of STIR/SHAKEN to the detriment of consumers.").

have the authority to grant a shorter extension for providers that we believe present a higher risk of originating illegal robocalls, and seeks comment on this interpretation.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

4. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules and by the rule revisions on which the Notice seeks comment, if adopted.¹⁰ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹¹ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.¹² A “small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.¹³

1. Wireline Carriers

5. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”¹⁴ The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.¹⁵ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.¹⁶ Of this total, 3,083 operated with fewer than 1,000 employees.¹⁷ Thus, under this size standard, the majority of firms in this industry can be considered small.

6. *Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to local exchange services. The closest

¹⁰ See 5 U.S.C. § 603(b)(3).

¹¹ See 5 U.S.C. § 601(6).

¹² 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

¹³ See 15 U.S.C. § 632.

¹⁴ See U.S. Census Bureau, *2017 NAICS Definition, “517311 Wired Telecommunications Carriers”*, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

¹⁵ See 13 CFR § 120.201, NAICS Code 517311 (previously 517110).

¹⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012*. NAICS Code 517110. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

¹⁷ *Id.* The largest category provided by the census data is “1000 employees or more” and a more precise estimate for firms with fewer than 1,500 employees is not provided.

applicable NAICS Code category is Wired Telecommunications Carriers.¹⁸ Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.¹⁹ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated for the entire year.²⁰ Of that total, 3,083 operated with fewer than 1,000 employees.²¹ Thus under this category and the associated size standard, the Commission estimates that the majority of local exchange carriers are small entities.

7. *Incumbent LECs.* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers.²² Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.²³ U.S. Census Bureau data for 2012 indicate that 3,117 firms operated the entire year.²⁴ Of this total, 3,083 operated with fewer than 1,000 employees.²⁵ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our actions. According to Commission data, one thousand three hundred and seven (1,307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.²⁶ Of this total, an estimated 1,006 have 1,500 or fewer employees.²⁷ Thus, using the SBA's size standard the majority of incumbent LECs can be considered small entities.

8. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers²⁸ and under that size standard, such a business is small if it has 1,500 or fewer employees.²⁹ U.S. Census Bureau data for 2012 indicate that 3,117 firms operated during that year.³⁰ Of that number, 3,083 operated with fewer than 1,000

¹⁸ See U.S. Census Bureau, *2017 NAICS Definition, NAICS Code 517311 "Wired Telecommunications Carriers,"* , <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

¹⁹ See 13 CFR § 120.201, NAICS Code 517311 (previously 517110).

²⁰ See U.S. Census Bureau, *2012 Economic Census of the United States, Table No. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* NAICS Code 517110. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

²¹ *Id.* The largest category provided by the census data is "1000 employees or more" and a more precise estimate for firms with fewer than 1,500 employees is not provided.

²² See, U.S. Census Bureau, *2017 NAICS Definition, NAICS Code 517311 "Wired Telecommunications Carriers,"* , <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

²³ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

²⁴ See U.S. Census Bureau, *2012 Economic Census of the United States, Table No. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

²⁵ *Id.*

²⁶ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

²⁷ *Id.*

²⁸ See U.S. Census Bureau, *2017 NAICS Definition, NAICS Code 517311 "Wired Telecommunications Carriers,"* , <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

²⁹ See 13 CFR § 120.201, NAICS Code 517311 (previously 517110).

³⁰ See U.S. Census Bureau, *2012 Economic Census of the United States, Table No. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012*, NAICS Code 517110. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

employees.³¹ Based on these data, the Commission concludes that the majority of Competitive LECS, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers, are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.³² Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees.³³ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.³⁴ Also, 72 carriers have reported that they are Other Local Service Providers.³⁵ Of this total, 70 have 1,500 or fewer employees.³⁶ Consequently, based on internally researched FCC data, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities.

9. We have included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small-business size standard (e.g., a telephone communications business having 1,500 or fewer employees) and “is not dominant in its field of operation.”³⁷ The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope.³⁸ We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

10. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for Interexchange Carriers. The closest applicable NAICS Code category is Wired Telecommunications Carriers.³⁹ The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁴⁰ U.S. Census Bureau data for 2012 indicate that 3,117 firms operated for the entire year.⁴¹ Of that number, 3,083 operated with fewer than 1,000 employees.⁴² According to internally developed Commission data, 359 companies reported that their

³¹ *Id.* The largest category provided by the census data is “1000 employees or more” and a more precise estimate for firms with fewer than 1,500 employees is not provided.

³² See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ 5 U.S.C. § 601(3).

³⁸ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (filed May 27, 1999). The Small Business Act contains a definition of “small business concern,” which the RFA incorporates into its own definition of “small business.” 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret “small business concern” to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

³⁹ See U.S. Census Bureau, *2017 NAICS Definition, NAICS Code 517311 “Wired Telecommunications Carriers,”* <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017>.

⁴⁰ See 13 CFR § 120.201, NAICS Code 517311 (previously 517110).

⁴¹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 NAICS Code 517110*, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

⁴² *Id.* The largest category provided by the census data is “1000 employees or more” and a more precise estimate for firms with fewer than 1,500 employees is not provided.

primary telecommunications service activity was the provision of interexchange services.⁴³ Of this total, an estimated 317 have 1,500 or fewer employees.⁴⁴ Consequently, the Commission estimates that the majority of interexchange service providers are small entities.

11. *Cable System Operators (Telecom Act Standard)*. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”⁴⁵ As of 2018, there were approximately 50,504,624 cable video subscribers in the United States.⁴⁶ Accordingly, an operator serving fewer than 505,046 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.⁴⁷ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million.⁴⁸ Therefore we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under *the* definition in the Communications Act.

2. Wireless Carriers

12. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.⁴⁹ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁵⁰ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁵¹ Of this total, 955 firms employed fewer than 1,000 employees and 12 firms employed 1000 employees or more.⁵² Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

⁴³ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*). https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁴⁴ *Id.*

⁴⁵ 47 U.S.C. § 543(m)(2); see 47 CFR § 76.901(f) & n.1–3.

⁴⁶ S&P Global Market Intelligence, *U.S. Cable Subscriber Highlights, Basic Subscribers(actual) 2018, U.S. Cable MSO Industry Total*, <https://platform.marketintelligence.spglobal.com/>.

⁴⁷ 47 CFR § 76.901(f) and n. ff. 1, 2, and 3.

⁴⁸ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority’s finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission’s rules. See 47 CFR § 76.909(b).

⁴⁹ U.S. Census Bureau, *2017 NAICS Definitions, “517312 Wireless Telecommunications Carriers (Except Satellite)”* <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

⁵⁰ 13 CFR § 121.201, NAICS Code 517312 (previously 517210).

⁵¹ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210. https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

⁵² *Id.* Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

13. The Commission's own data—available in its Universal Licensing System—indicate that, as of August 31, 2018 there are 265 Cellular licensees that will be affected by our actions.⁵³ The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁵⁴ Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁵⁵ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

14. *Satellite Telecommunications.* This category comprises firms “primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.”⁵⁶ Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of \$35 million or less in average annual receipts, under SBA rules.⁵⁷ For this category, U.S. Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.⁵⁸ Of this total, 299 firms had annual receipts of less than \$25 million.⁵⁹ Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

3. Resellers

15. *Local Resellers.* The SBA has not developed a small business size standard specifically for Local Resellers. The SBA category of Telecommunications Resellers is the closest NAICS code category for local resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.⁶⁰ Under the SBA's size standard, such a business is small if it has 1,500 or fewer employees.⁶¹

⁵³ See <http://wireless.fcc.gov/uls>. For the purposes of this IRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

⁵⁴ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁵⁵ See *id.*

⁵⁶ U.S. Census Bureau, 2017 NAICS Definitions, “517410 Satellite Telecommunications”; <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517410&search=2017+NAICS+Search&search=2017>.

⁵⁷ 13 CFR § 121.201, NAICS code 517410.

⁵⁸ U.S. Census Bureau, 2012 Economic Census of the United States, Table EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012*, NAICS Code 517410, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4/naics~517410.

⁵⁹ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of \$35 million or less.

⁶⁰ U.S. Census Bureau, 2017 NAICS Definition, “517911 Telecommunications Resellers”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517911&search=2017%20NAICS%20Search>.

⁶¹ 13 CFR § 121.201, NAICS code 517911.

U.S. Census Bureau data from 2012 show that 1,341 firms provided resale services during that year.⁶² Of that number, all operated with fewer than 1,000 employees.⁶³ Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.⁶⁴ Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.⁶⁵ Consequently, the Commission estimates that the majority of local resellers are small entities.

16. *Toll Resellers.* The Commission has not developed a definition for Toll Resellers. The closest NAICS Code Category is Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. MVNOs are included in this industry.⁶⁶ The SBA has developed a small business size standard for the category of Telecommunications Resellers.⁶⁷ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁸ 2012 Census Bureau data show that 1,341 firms provided resale services during that year.⁶⁹ Of that number, 1,341 operated with fewer than 1,000 employees.⁷⁰ Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁷¹ Of this total, an estimated 857 have 1,500 or fewer employees.⁷² Consequently, the Commission estimates that the majority of toll resellers are small entities.

17. *Prepaid Calling Card Providers.* Neither the Commission nor the SBA has developed a small business definition specifically for prepaid calling card providers. The most appropriate NAICS code-based category for defining prepaid calling card providers is Telecommunications Resellers.⁷³ This

⁶² See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 NAICS Code 517911*, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517911.

⁶³ *Id.* Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

⁶⁴ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁶⁵ See *id.*

⁶⁶ U.S. Census Bureau, 2017 NAICS Definition, 517911 Telecommunications Resellers, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517911&search=2017%20NAICS%20Search>.

⁶⁷ 13 CFR § 121.201, NAICS code 517911.

⁶⁸ *Id.*

⁶⁹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 NAICS Code 517911*, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517911.

⁷⁰ *Id.* Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

⁷¹ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁷² See *id.*

⁷³ U.S. Census Bureau, *2017 NAICS Definition*, “517911 Telecommunications Resellers”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517911&search=2017%20NAICS%20Search>.

industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual networks operators (MVNOs) are included in this industry.⁷⁴ Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.⁷⁵ U.S. Census Bureau data for 2012 show that 1,341 firms provided resale services during that year.⁷⁶ Of that number, 1,341 operated with fewer than 1,000 employees.⁷⁷ Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities. According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.⁷⁸ All 193 carriers have 1,500 or fewer employees.⁷⁹ Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities that may be affected by these rules..

4. Other Entities

18. *All Other Telecommunications.* The “All Other Telecommunications” category is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.⁸⁰ This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems.⁸¹ Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.⁸² The SBA has developed a small business size standard for “All Other Telecommunications”, which consists of all such firms with annual receipts of \$35 million or less.⁸³ For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year.⁸⁴ Of those firms, a total of 1,400 had annual receipts less than \$25 million and 15 firms had annual receipts of \$25 million to \$49,999,999.⁸⁵ Thus, the Commission estimates that the majority of “All Other Telecommunications” firms potentially affected by our action can be considered small.

⁷⁴ *Id.*

⁷⁵ 13 CFR § 121.201, NAICS Code 517911.

⁷⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* NAICS Code 517911, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517911.

⁷⁷ *Id.* Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees. The largest category provided is for firms with “1000 employees or more.”

⁷⁸ See *Trends in Telephone Service*, at tbl. 5.3.

⁷⁹ *Id.*

⁸⁰ See U.S. Census Bureau, *2017 NAICS Definitions*, “517919 All Other Telecommunications”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517919&search=2017+NAICS+Search&search=2017>.

⁸¹ *Id.*

⁸² *Id.*

⁸³ See 13 CFR § 121.201, NAICS Code 517919.

⁸⁴ U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012*, NAICS Code 517919, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~517919.

⁸⁵ *Id.*

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

19. The *Further Notice* proposes shortening the extension for small voice service providers that originate an especially large amount of traffic from two years to one year, which would result in a new compliance deadline for small providers to implement STIR/SHAKEN by June 1, 2022.⁸⁶ The *Further Notice* also proposes to rely on the Commission's existing rule⁸⁷ that would require small voice service providers subject to a shortened extension to (1) within ten business days of the effective date of any Order we adopt, update their certifications and associated filings indicating that they are subject to a shortened extension; and (2) further update their certifications and associated filings within ten business days of completion of STIR/SHAKEN implementation in the IP portions of their networks.⁸⁸ We seek comment on these proposals and whether we should adopt alternate requirements to monitor compliance.⁸⁹

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

20. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rules for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.⁹⁰

21. We seek comment on our proposal in the *Further Notice* to shorten the extension for small voice service providers that originate an especially large amount of call traffic and whether our proposed rules would impact such voice service providers; and on proposals to lessen that impact, including by modifying the terms of this curtailed compliance.⁹¹ The *Further Notice* further seeks comment on ways to ease compliance with monitoring requirements, including by relying on existing rules and data collection requirements.⁹² We expect to take into account the economic impact on small entities, as identified in comments filed in response to the *Further Notice* and this IRFA, in reaching our final conclusions and promulgating rules in this proceeding.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

22. None.

⁸⁶ *Supra*, para. 36; 47 CFR § 63.6301.

⁸⁷ 47 CFR § 64.6305(b)(2)(i).

⁸⁸ *Supra*, paras. 40.

⁸⁹ *Supra*, paras. 39-41.

⁹⁰ 5 U.S.C. § 603(c)(1)-(4).

⁹¹ *Supra*, paras. 11-17.

⁹² *Supra*, para. 39.