

FCC FACT SHEET*

Advanced Methods to Target and Eliminate Unlawful Robocalls

Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking –
CG Docket No. 17-59

Background: Stopping unwanted and illegal calls to consumers is the Commission’s top consumer protection priority. With the passage of the TRACED Act, Congress has provided the Commission with additional tools for this fight. This item builds on the Commission’s prior work and implements the TRACED Act by establishing safe harbors from liability for voice service providers that block unwanted calls identified by reasonable analytics or coming from the networks of “bad-actor” providers. It also establishes certain protections for legitimate callers and seeks comment on issues related to call blocking and TRACED Act implementation.

What the Third Report and Order Would Do:

- Establish a safe harbor from liability under the Communications Act and Commission rules for terminating voice service providers that block calls based on reasonable analytics designed to identify unwanted calls, so long as those take into account information from the STIR/SHAKEN call authentication framework.
- Establish a safe harbor enabling voice service providers to block traffic from bad-actor voice service providers that, either negligently or intentionally, continue to allow unwanted calls to traverse their networks.
- Require blocking providers to furnish a single point of contact to resolve unintended or inadvertent blocking, and emphasize that they should make all reasonable efforts to ensure that critical calls, such as those from Public Safety Answering Points, are not blocked and that they never block calls to 911.

What the Fourth Further Notice Would Do:

- Seek comment on how the Commission can build on the Third Report and Order’s call blocking steps and further implement the TRACED Act.
- Propose to establish an affirmative obligation for voice service providers to respond to certain traceback requests, mitigate bad traffic, and take affirmative measures to prevent customers from originating illegal calls.
- Propose to require terminating voice service providers that block calls to provide a list of blocked calls to their customers on request and at no additional charge.

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

In the Matter of)
Advanced Methods to Target and Eliminate) CG Docket No. 17-59
Unlawful Robocalls)
Alarm Industry Communications Committee)
Petition for Clarification or Reconsideration)
American Dental Association)
Petition for Clarification or Reconsideration)

THIRD REPORT AND ORDER, ORDER ON RECONSIDERATION, AND
FOURTH FURTHER NOTICE OF PROPOSED RULEMAKING*

Adopted: []

Released: []

Comment Date: 30 days after date of publication in the Federal Register

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

By the Commission:

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* This document has been circulated for tentative consideration by the Commission at its July 16, 2020 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 Chairman 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.

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I. INTRODUCTION

1. Stopping unwanted and illegal robocalls to consumers is the Commission’s top consumer protection priority. We receive hundreds of thousands of complaints about such calls each year and continue to combat this scourge on several fronts, from implementing new rules to pursuing aggressive enforcement actions.

2. With the passage of the TRACED Act, Congress has provided us with additional tools for this fight.¹ We have already taken steps to implement the TRACED Act, including establishing a process to select a traceback consortium, requiring voice service providers to implement caller ID authentication technology in their networks, establishing the Hospital Robocall Protection Group, and initiating a proceeding to address one-ring scam calls.² Today, we continue our efforts to combat illegal robocalls.

3. In the *Third Report and Order*, we adopt rules that further encourage call blocking by establishing a safe harbor from liability under the Communications Act and the Commission’s rules for the unintended or inadvertent blocking of wanted calls, so long as such action is based upon reasonable analytics indicating that such calls were unwanted and therefore should be blocked. We also enable voice service providers,³ under certain conditions, to stop upstream voice service providers that fail to take

¹ Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, Pub. L. No. 116-105, 133 Stat. 3274 (2019) (TRACED Act).

² *Call Authentication Trust Anchor, Implementation of TRACED Act Section 6(a) — Knowledge of Customers by Entities with Access to Numbering Resources*, WC Docket No. 17-97, WC Docket No. 20-67, Report and Order and Further Notice of Proposes Rulemaking, 34 FCC Rcd 3241 (2020) (*STIR/SHAKEN Order*); *Implementing Section 13(d) of the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act (TRACED Act)*, EB Docket No. 20-22, Report and Order and Further Notice of Proposed Rulemaking, 34 FCC Rcd 3113 (Mar. 27, 2020) (*Traceback Consortium Order*); *FCC Announces the Establishment of the Hospital Robocall Protection Group and Seeks Nominations for Membership*, Public Notice, DA 20-333 (Mar. 25, 2020); *Protecting Consumers from One Ring Scams*, CG Docket No. 20-93, Notice of Proposed Rulemaking, FCC 20-57 (Apr. 28, 2020) (*One Ring Scam NPRM*).

³ For purposes of this *Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking*, we define “voice service provider” to mean any entity originating, carrying, or terminating voice calls through time-division multiplexing (TDM), VoIP, or commercial mobile radio service (CMRS). We clarify that

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actions to mitigate illegal calls from using other voice service providers' networks to pass along bad traffic.⁴

4. In the *Further Notice of Proposed Rulemaking*, we propose additional steps to further protect and inform consumers about robocalls and provider blocking efforts. These include seeking comment whether to *obligate* originating and intermediate providers to better police their networks against illegal calls, as well as to require terminating providers to provide information about blocked calls to consumers. With these proposals and the rules we adopt today, we continue to advance the Commission's multi-pronged approach to stopping unwanted robocalls.

II. BACKGROUND

5. *The Robocall Problem.* Unwanted calls are our top consumer complaint. We received 150,000 such complaints in 2016, 185,000 in 2017, 232,000 in 2018, and 191,015 in 2019.⁵ Other agencies report similarly eye-popping numbers of complaints. The Federal Trade Commission (FTC), for example, received an average of 315,000 robocall complaints per month in fiscal year 2019.⁶ Non-governmental entities also track unwanted robocalls. Hiya and YouMail analyze call patterns and publish information about call volumes and trends.⁷ Hiya reports that 54.6 billion unwanted robocalls were

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VoIP includes interconnected and one-way VoIP, both of which are subject to the call completion rules. See 47 CFR §§ 64.2100 et seq. This definition is consistent with our use of this term in previous call blocking items and existing call blocking rules. We note that this definition, however, is inconsistent with the definition of "voice service" in section 4 of the TRACED Act and the *STIR/SHAKEN Order*; that definition excludes intermediate providers. TRACED Act § 4(a)(2) (codified at 47 U.S.C. § 227b(a)(2)); *STIR/SHAKEN Order*, 34 FCC Rcd at 3300-01, Appx. A. We find that adopting the definition used in the TRACED Act here would create inconsistency with our already existing rules. To the extent that we rely on section 4 of the TRACED Act for some of the rules we adopt today, we have ensured that the subset of voice service providers covered by those rules are included in the TRACED Act's definition of "voice service."

⁴ In this item we use "bad traffic" and "illegal traffic" interchangeably.

⁵ FCC, *Consumer Complaint Data Center*, <https://www.fcc.gov/consumer-help-center-data> (last visited Mar. 11, 2020). Multiple factors can affect these numbers, including outreach efforts and media coverage on how to avoid unwanted calls.

⁶ The FTC provides Congress with a Biennial Report on the operation of the National Do Not Call Registry. FTC, *Biennial Report to Congress Under the Do Not Call Registry Fee Extension Act of 2007 at 3* (2019), <https://www.ftc.gov/system/files/documents/reports/biennial-report-congress-under-do-not-call-registry-fee-extension-act-2007-operation-national-do-not/p034305dncreport2019.pdf>. The Federal Trade Commission (FTC) also tracks consumer complaint data and makes the information available on its Do Not Call (DNC) Reported Calls Data page. FTC, *Do Not Call Reported Calls Data*, <https://www.ftc.gov/site-information/open-government/datasets/do-not-call-data> (last visited Mar. 11, 2020).

⁷ YouMail and the other companies extrapolate the data they collect from their user bases to estimate the entire volume of calls in the United States. YouMail, *January 2020 Nationwide Robocall Data*, <https://robocallindex.com/2020/january> (last visited Mar. 11, 2020); Hiya, *State of the Call*, <https://hiya.com/state-of-the-call> (last visited Mar. 11, 2020); Press Release, First Orion, *Nearly 50% of U.S. Mobile Traffic Will Be Scam Calls by 2019* (Sept. 12, 2018), <https://firstorion.com/nearly-50-of-u-s-mobile-traffic-will-be-scam-calls-by-2019/>. While these sources do not generally differentiate between legal and illegal calls, or wanted and unwanted calls in their overall numbers, they do offer some description of the calls on which they report. For example, over 30% of the calls reported by Hiya are classified as "general spam" and not fraud or other illegal activity, and approximately 20% are "telemarketing." Hiya, *State of the Call*, <https://hiya.com/state-of-the-call> (last visited Mar. 11, 2020). YouMail estimated that in November 2019, approximately 12% of robocalls were telemarketing, approximately 22% were alerts and reminders, and approximately 19% were payment reminders. YouMail, *November 2019 Nationwide Robocall Data*, <https://robocallindex.com/2019/november> (last visited Mar. 11, 2020).

placed to U.S. mobile phones in 2019.⁸ YouMail estimates robocalls at 30.5 billion in 2017, 47.8 billion in 2018, and 58.5 billion in 2019.⁹ Robocall volume appears to have dropped during the coronavirus pandemic. YouMail has reported a decline of about 40% from February to April 2020, from 4.8 billion robocalls to 2.9 billion robocalls in the United States.¹⁰ The numbers rose slightly in May 2020 to 3 billion robocalls in the United States, and YouMail speculated that the number was likely to rise further as call centers re-open.¹¹

6. Illegal robocalls are often tools for consumer fraud and identity theft. The FTC recorded 647,310 phone fraud reports for fiscal year 2018.¹² One well-known scam involves impersonation of Internal Revenue Service (IRS) telephone numbers and employees, and resulted in 14,700 victims as of March 2019 and more than \$72 million lost since October 2013.¹³ More recent examples include callers claiming to have suspended a consumer's Social Security number due to suspicious activity.¹⁴ The FTC

⁸ Hiya, *State of the Call*, <https://hiya.com/state-of-the-call> (last visited Mar. 11, 2020). It also provides data on call answer rates, indicating that consumers are most likely to answer their phones when the number calling is saved to the phone's contacts or identified as a business, and are least likely to answer calls from unidentified numbers and those marked as spam. Hiya, *State of the Call End of Year Report 2019* at 4 (2019), <https://assets.hiya.com/public/pdf/HiyaStateOfTheCall2019.pdf?v=ff6a3203004af7328a696e57bcb949dd>. Specifically, Hiya's data indicates that the average answer rate for incoming calls is 47%. This jumps to 71% for calls from numbers saved in contacts, with the rate dropping slightly to 65% for calls that are identified as a business where the number is not saved in contacts. Consumers only answer their phone 9% of the time when the call is marked as "spam" and 18% of the time when the call is not identified. *Id.* Consumers are also more likely to remain on the phone when the call is from a number in their contacts, with an average 5 minute 28 second call duration, or identified as a business, with an average 2 minute 58 second duration. In contrast, customers spend an average of 45 seconds on the line for calls marked "spam" and 30 seconds on the line for unidentified calls. *Id.* at 5.

⁹ YouMail, *Historical Robocalls By Time*, <https://robocallindex.com/history/time> (last Mar. 11, 2020). YouMail does not specifically define "robocall," but does provide categories of what they consider robocalls. These categories include telemarketing, alerts and reminders, payment reminders, and scams. YouMail, *Robocall Index*, <https://robocallindex.com/> (last visited Jan. 23, 2019).

¹⁰ PR Newswire, *2.9 Billion Robocalls in April Mark 30% Monthly Decline, Says YouMail Robocall Index* (May 6, 2020), <https://www.prnewswire.com/news-releases/2-9-billion-robocalls-in-april-mark-30-monthly-decline-says-youmail-robocall-index-301053869.html>.

¹¹ YouMail, *Don't Let Your Guard Down — Telemarketers are Still in Business* (June 19, 2020), <https://blog.youmail.com/2020/06/dont-let-your-guard-down-shady-telemarketers-are-still-in-business/>.

¹² FTC, *Consumer Sentinel Network Data Book 2018* at 12 (2019), https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2018/consumer_sentinel_network_data_book_2018_0.pdf. Only 66% of complaints indicated the means of contact. *Id.* Common scams include: imposter scams; prizes, sweepstakes, and lotteries; travel, vacations, and timeshare plans; mortgage foreclosure relief and debt management; advanced payments for credit services; grants; charitable solicitations; and tax preparation. FTC, *Consumer Sentinel Network Data Book 2017* at 9 (2018), https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2017/consumer_sentinel_data_book_2017.pdf.

¹³ See, e.g., *FCC and TIGTA Warn Consumers of IRS Impersonation Phone Scam: Scam Has Cost Victims Tens of Millions of Dollars*, DA 16-1392, Enforcement Advisory, 31 FCC Rcd 13184 (EB 2016) (warning consumers of scam callers claiming to be from the Internal Revenue Service and in which Caller ID is spoofed to display an IRS telephone number or "IRS"); Internal Revenue Service, *IRS: Be Vigilant Against Phone Scams; Annual "Dirty Dozen" List Continues* (Mar. 5, 2019), <https://www.irs.gov/newsroom/irs-be-vigilant-against-phone-scams-annual-dirty-dozen-list-continues>.

¹⁴ Federal Trade Commission, *Getting Calls from the SSA?* (Mar. 6, 2019), <https://www.consumer.ftc.gov/blog/2019/03/getting-calls-ssa>.

says it received 73,000 reports on this scam with losses of \$17 million for the first half of 2019.¹⁵ Other scams include sales of fake flood insurance and auto warranties.¹⁶ In fraud cases where telephone was the contact method, the FTC reports that 8% of called consumers lost money to the scammer, with an aggregate loss of \$429 million and a median loss of \$840 per consumer.¹⁷

7. *Commission Enforcement Against Unwanted Calls.* Recognizing that there is no single solution to the robocall problem, the Commission has fought this battle on multiple fronts, including taking enforcement action against illegal callers. For example, in December 2019, the Commission proposed a nearly \$10 million fine against a telemarketer that appeared to spoof a competitor's telephone number to place prerecorded voice calls containing false accusations against a state political candidate.¹⁸ In January 2020, the Commission proposed nearly \$13 million in fines in response to a neighbor spoofing campaign that involved thousands of robocalls.¹⁹ These calls targeted specific communities in California, Florida, Georgia, Idaho, Iowa, and Virginia, and included calls apparently motivated by a desire for media notoriety to increase publicity for the caller's website and personal brand.²⁰ Most recently, in June 2020, the Commission issued a Notice of Apparent Liability proposing a forfeiture of \$225,000,000 against persons apparently responsible for making approximately one billion spoofed robocalls in the first four-and-a-half months of 2019 that included prerecorded messages falsely claiming affiliation with major health insurance providers in the United States.²¹

8. On April 3, 2020, our Enforcement Bureau, in collaboration with the FTC, warned three gateway providers that were facilitating COVID-19 related robocall scams originating overseas.²² The

¹⁵ Federal Trade Commission, *Social Security is Not Trying to Take Your Benefits* (Sept. 13, 2019), <https://www.consumer.ftc.gov/blog/2019/09/social-security-not-trying-take-your-benefits>.

¹⁶ See Federal Communications Commission, *After Storms, Watch Out for Scams* (Oct. 24, 2019), <https://www.fcc.gov/consumers/guides/after-storms-watch-out-scams>; Federal Communications Commission, *Watch Out for Auto Warranty Scams* (Nov. 1, 2019), <https://www.fcc.gov/consumers/guides/beware-auto-warranty-scams>.

¹⁷ FTC, Consumer Sentinel Network Data Book 2018 at 4 (2019), https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2018/consumer_sentinel_network_data_book_2018_0.pdf. Only 8% of complaints where the contact method was phone reported a monetary loss. Both the number of calls and the dollar amount of losses have increased since 2017. The FTC's Consumer Sentinel Network Databook for fiscal year 2017 states that out of 1,138,306 fraud reports received, 509,142 reports indicated phone as the contact method. Consumers reported a total loss of \$290 million to these frauds, with the median loss per consumer being \$720. FTC, Consumer Sentinel Network Data Book 2017 at 12 (2018), https://www.ftc.gov/system/files/documents/reports/consumer-sentinel-network-data-book-2017/consumer_sentinel_data_book_2017.pdf.

¹⁸ *Kenneth Moser dba Marketing Support Systems*, Notice of Apparent Liability for Forfeiture, FCC 19-135 (Dec. 13, 2019).

¹⁹ *Scott Rhodes a.k.a. Scott David Rhodes, Scott D. Rhodes, Scott Platek, Scott P. Platek*, Notice of Apparent Liability for Forfeiture, FCC 20-9 (Jan. 31, 2020).

²⁰ *Id.*

²¹ *John C. Spiller; Jakob A. Mears; Rising Eagle Capital Group LLC, et. al.*, Notice of Apparent Liability for Forfeiture, FCC 20-74 (Jun. 10, 2020).

²² See Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Chris Cordero & Scott Kettle, Connexum (Apr. 3, 2020) (available at <https://docs.fcc.gov/public/attachments/DOC-363522A3.pdf>) (Connexum Letter); Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Barry Augustinsky, SIPJoin Holdings Corp. (Apr. 3, 2020) (available at

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Enforcement Bureau and the FTC similarly warned three additional gateway providers on May 20, 2020.²³ Both agencies, working in conjunction with the USTelecom Industry Traceback Group, identified the scams.²⁴ The warning letters made clear that if the gateway providers continued to transmit the identified traffic after 48 hours, the Commission would authorize other US voice service providers to block all calls from the offending gateway provider.²⁵ Within 48 hours of receiving the letters, each of the gateway providers confirmed they had terminated the robocall traffic.²⁶ These claims were verified by USTelecom.²⁷

9. *Policy Action to Stop Unwanted Calls.* Beyond enforcement, the Commission, as well as Congress, have taken a variety of other steps to combat unwanted robocalls. In November 2017, the Commission expressly authorized voice service providers to block certain categories of calls that are highly likely to be illegal. These include calls purporting to originate from unassigned, unallocated, or invalid numbers and calls purporting to originate from numbers that are valid and in service, but that are not used by their subscribers to originate calls.

10. The Commission has pushed industry to quickly develop and implement caller ID authentication since our 2018 *Notice of Inquiry*, which sought comment on how to expedite caller ID authentication development and implementation.²⁸ The North American Numbering Council (NANC), in a May 2018 report, recommended that representatives from various industry stakeholders comprise a board overseeing the Governance Authority,²⁹ and that “individual companies capable of signing and

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<https://docs.fcc.gov/public/attachments/DOC-363522A4.pdf>) (SIPJoin Letter); Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Muhammad U. Khan, VoIP Terminators dba BLMarketing, (Apr. 3, 2020) (available at <https://docs.fcc.gov/public/attachments/DOC-363522A5.pdf>) (BLMarketing Letter).

²³ See Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Franklin Fawzi, CEO, Inetelepeer Cloud Communications LLC (May 20, 2020) (available at <https://docs.fcc.gov/public/attachments/DOC-364482A3.pdf>) (Intelepeer Letter); Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Craig Densen, CEO, PTGi International Carrier Services, Inc. (May 20, 2020) (available at <https://docs.fcc.gov/public/attachments/DOC-364482A4.pdf>) (PTGi Letter); Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission & Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Vitaly Potapov, CEO, RSCom LTD (May 20, 2020) (available at <https://docs.fcc.gov/public/attachments/DOC-364482A5.pdf>) (RSCom Letter).

²⁴ See Connexum Letter; SIPJoin Letter; BLMarketing Letter.

²⁵ See Connexum Letter; SIPJoin Letter; BLMarketing Letter.

²⁶ Press release, FCC, FCC, FTC Demand Robocall-enabling Service Providers Cut Off COVID-19-related International Scammers (May 20, 2020), <https://docs.fcc.gov/public/attachments/DOC-364482A1.pdf>.

²⁷ Brian Weiss, *FCC, FTC Credit Industry Traceback Group for Work to Slow COVID-19 Robocall Scams* (Apr. 3, 2020), <https://www.ustelecom.org/fcc-ftc-credit-industry-traceback-group-for-work-to-slow-covid-19-robocall-scams/>.

²⁸ See generally *Call Authentication Trust Anchor*, WC Docket No. 17-97, Notice of Inquiry, 32 FCC Rcd 5988 (2017) (*Call Authentication NOI*).

²⁹ Call Authentication Trust Anchor Working Grp., N. Am. Numbering Council, Report on Selection of Governance Authority and Timely Deployment of SHAKEN/STIR at 7 (2018), <http://nanc->

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validating VoIP calls using STIR/SHAKEN should implement the standard within a period of approximately one year after completion of the NANC Call Authentication Trust Anchor (CATA) report.”³⁰ These recommendations were accepted shortly after they were issued by the NANC.³¹ In 2019, the Commission proposed to mandate STIR/SHAKEN, a caller ID authentication technology, if major voice service providers failed to implement the standard by the end of that year.³²

11. In a June 2019 *Declaratory Ruling*, we made clear that terminating voice service providers may block calls on a consumer opt-out basis where reasonable analytics indicate the calls are unwanted, and may block all calls not from numbers on a customer’s white list on an opt-in basis.³³ In an accompanying *Further Notice of Proposed Rulemaking*, we sought comment on several other call blocking steps.³⁴ First, we sought comment on safe harbors for blocking of potentially spoofed calls.³⁵ Specifically, we proposed a safe harbor for voice service providers that blocked calls that failed authentication under the STIR/SHAKEN framework and sought comment on adopting a safe harbor for blocking unsigned calls from particular categories of originating or intermediate voice service providers.³⁶ Second, we sought comment on protections for critical calls, including establishing a critical calls list for outbound numbers of 911 call centers, government emergency outbound numbers, and calls placed to 911.³⁷ We further sought comment on how to protect callers from erroneous blocking.³⁸ Finally, we sought comment on whether to create a mechanism to provide information to consumers about the effectiveness of various robocall solutions.³⁹

12. In December 2019, Congress passed the TRACED Act, which bolsters the Commission’s multi-pronged approach to addressing unwanted robocalls.⁴⁰ The new law strengthens enforcement by mandating new forfeiture penalties for certain robocalls and directs the Commission to establish rules for

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http://nanc-chair.org/docs/mtg_docs/May_18_Call_Authentication_Trust_Anchor_NANC_Final_Report.pdf (2018 NANC Working Group Report).

³⁰ *Id.* at 17. STIR/SHAKEN is an industry-developed framework to authenticate caller ID and address unlawful spoofing on Internet Protocol (IP) networks by confirming that a call actually comes from the number indicated in the caller ID, or at least that the call entered the US network through a particular voice service provider or gateway. Secure Telephony Identify Revisited (STIR) and Signature-based Handling of Asserted information using toKENs (SHAKEN) work together to provide protocols and implementation standards. The *STIR/SHAKEN Order* provides detail about the standard.

³¹ Press Release, FCC, Chairman Pai Welcomes Call Authentication Recommendations from the North American Numbering Council (May 14, 2018), http://nanc-chair.org/docs/mtg_docs/May18_FCC_Chairman_Welcomes_CATA_Recommendations.pdf.

³² *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4898-4902, paras. 71-82.

³³ *Id.* at 4883-92, paras. 22-47.

³⁴ *Id.* at 4892-4903, paras. 48-86.

³⁵ *Id.* at 4892-96, paras. 49-62.

³⁶ *Id.* at 4893-95, paras. 51-58.

³⁷ *Id.* at 4896-97, paras. 63-69.

³⁸ *Id.* at 4897, para. 70.

³⁹ *Id.* at 4902, para 83.

⁴⁰ TRACED Act.

the registration of a single consortium that conducts private-led traceback efforts.⁴¹

13. Section 4(c) of the TRACED Act directs us to promulgate rules and a safe harbor for the blocking of calls based on “information provided by the call authentication frameworks under subsection (b)” (which include STIR/SHAKEN).⁴² First, section 4(c)(1)(A) directs us to establish “when a provider of voice service may block a voice call based, in whole or in part, on information provided by the call authentication frameworks.”⁴³ Section 4(c)(1)(B) goes a step further and directs the Commission to establish “a safe harbor for a provider of voice service from liability for unintended or inadvertent blocking of calls or for the unintended or inadvertent misidentification of the level of trust for individual calls based, in whole or in part, on information provided by the call authentication frameworks.”⁴⁴

14. Section 4(c)(2) directs the Commission, in establishing the safe harbor under section 4(c)(1)(B), to “consider limiting the liability of a provider of voice service based on the extent to which the provider of voice service” that “blocks or identifies calls based, in whole or in part, on the information provided by the call authentication,” “implemented procedures based, in whole or in part, on the information provided by the call authentication frameworks,” and “used reasonable care, including making all reasonable efforts to avoid blocking emergency public safety calls.”⁴⁵ Sections 4(c)(1)(C) and 4(c)(1)(D) direct us to establish a “process to permit a calling party adversely affected by the information provided by the call authentication frameworks . . . to verify the authenticity of the calling party’s calls” and to ensure that “calls originating from a provider of voice service in an area where the provider is subject to a delay of compliance . . . are not unreasonably blocked because the calls are not able to be authenticated.”⁴⁶

15. Section 7 of the TRACED Act directs us to “initiate a rulemaking to help protect a subscriber from receiving unwanted calls or text messages from a caller using an unauthenticated number.”⁴⁷ Section 7(b) directs us to consider five specific issues in promulgating these rules.⁴⁸ For example, it directs us to consider “the best means of ensuring that a subscriber or provider has the ability to block calls from a caller using an unauthenticated North American Numbering Plan number” and “the impact on the privacy of a subscriber from unauthenticated calls.”⁴⁹

16. Finally, section 10(b) directs us to provide “transparency and effective redress options” for both consumers and callers for opt-in or opt-out call blocking based on the *Call Blocking Declaratory Ruling and Further Notice*.⁵⁰ This section further directs us to ensure that these options are offered “with

⁴¹ *Id.* §§ 3, (codified at 47 U.S.C. § 227(b)(4)), 13(d).

⁴² *Id.* § 4(c) (codified at 47 U.S.C. § 227b(c)).

⁴³ *Id.* § 4(c)(1)(A) (codified at 47 U.S.C. § 227b(c)(1)(A)).

⁴⁴ *Id.* § 4(c)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)).

⁴⁵ *Id.* § 4(c)(2) (codified at 47 U.S.C. § 227b(c)(2)).

⁴⁶ *Id.* §§ 4(c)(1)(C) (codified at 47 U.S.C. § 227b(c)(1)(C)), 4(c)(1)(D) (codified at 47 U.S.C. § 227b(c)(1)(D)).

⁴⁷ *Id.* § 7(a).

⁴⁸ *Id.* § 7(b).

⁴⁹ *Id.* §§ 7(b)(2), (3).

⁵⁰ *Id.* § 10 (b) (codified at 47 U.S.C. § 227(j)). *See also Advanced Methods to Target and Eliminate Unlawful Robocalls, Call Authentication Trust Anchor*, CG Docket No. 17-59, WC Docket No. 17-97, Declaratory Ruling and Third Further Notice of Proposed Rulemaking, 34 FCC Rcd 4876, 4884-4891, paras. 26-46 (2019) (*Call Blocking Declaratory Ruling and Further Notice*).

no additional line item charge to consumers and no additional charge to callers for resolving complaints related to erroneously blocked calls” and to “make all reasonable efforts to avoid blocking emergency public safety calls.”⁵¹

17. In response to this legislation, in March 2020, the Commission adopted rules establishing a registration process for a consortium to conduct private-led traceback initiatives (the Traceback Consortium).⁵² Separately, in March 2020, the Commission adopted a *Report and Order and Further Notice of Proposed Rulemaking* that requires all originating and terminating voice service providers to implement the STIR/SHAKEN framework in the IP portions of their networks by June 30, 2021.⁵³ The Commission also offered proposals and sought comment on further efforts to promote caller ID authentication and implement section 4 of the TRACED Act, and on implementing section 6(a) of the TRACED Act, which concerns access to numbering resources.⁵⁴ Finally, in April 2020, we took steps to implement the TRACED Act’s directive to consider taking additional action to protect consumers from one-ring scams by adopting a *Notice of Proposed Rulemaking* on that issue.⁵⁵

III. THIRD REPORT AND ORDER

18. With this *Order*, we take specific and concrete steps to further protect consumers against unwanted calls. These steps both respond to voice service providers that seek assurance that their good-faith blocking will not result in liability if they inadvertently block wanted calls and implement the call blocking provisions of the TRACED Act. At the same time, we adopt safeguards against erroneous blocking, including measures to ensure such blocking is quickly remedied. All these steps continue our work to protect consumers from illegal and unwanted calls and complement our work on caller ID authentication implementation.

19. More specifically, we adopt a safe harbor from liability under the Communications Act and our rules for terminating voice service providers that block calls based on reasonable analytics designed to identify unwanted calls, so long as those take into account information provided by STIR/SHAKEN (or, for non-IP based calls, any other effective call authentication framework that satisfies the TRACED Act) when such information is available for a particular call.⁵⁶ And we establish a second safe harbor enabling voice service providers to block traffic from bad-actor upstream voice service providers that, either negligently or intentionally, continue to allow unwanted calls to traverse their

⁵¹ TRACED Act § 10 (b) (codified at 47 U.S.C. § 227(j)).

⁵² *Traceback Consortium Order*.

⁵³ *STIR/SHAKEN Order* 34 FCC Rcd at 3252-68, paras. 24-56.

⁵⁴ *Id.* at 3268-96, paras. 57-130.

⁵⁵ *One Ring Scam NPRM* at 1, paras. 1-2.

⁵⁶ We note that the TRACED Act § 4(c)(1) refers to blocking based “in whole or in part” on caller ID authentication information. TRACED Act § 4(c)(1). This safe harbor focuses solely on blocking based “in part” on caller ID authentication information. Though we decline to adopt a safe harbor for blocking based “in whole” on such information at this time, we reserve the right to do so at a later date, should such blocking be appropriate. The TRACED Act does not provide additional authority for blocking that is not based “in part” on caller ID authentication information. To the extent this safe harbor covers such blocking, we instead rely on our existing statutory authority, including sections 201(b), 202(a), and 251(e) of the Communications Act as well as the Truth in Caller ID Act. The TRACED Act discusses alternative caller ID authentication technologies in section 4(b)(2)(B)(i). TRACED Act § 4(b)(2)(B)(i).

networks.⁵⁷ Finally, we require that blocking providers furnish a single point of contact to resolve unintended or inadvertent blocking, and emphasize that, when blocking, they should make all reasonable efforts to ensure that critical calls, such as those from Public Safety Answering Points (PSAPs), are not blocked and that they should never block calls to 911.

A. Safe Harbors

20. The TRACED Act directs the Commission to adopt rules “establishing when a provider of voice service may block a voice call based, in whole or in part, on information provided by the call authentication frameworks . . . with no additional line item charge”⁵⁸ as well as to establish “a safe harbor for a provider of voice service from liability for unintended or inadvertent blocking of calls or for the unintended or inadvertent misidentification of the level of trust for individual calls based, in whole or in part, on information provided by the call authentication frameworks.”⁵⁹ And, prior to the new law’s passage, we sought comment on safe harbors for blocking of calls in certain situations by terminating voice service providers.⁶⁰

21. Consistent with the TRACED Act and in light of the record garnered in response to our *Call Blocking Declaratory Ruling and Further Notice*, we adopt two safe harbors from liability under the Communications Act and the Commission’s rules for certain call blocking by voice service providers.⁶¹ The first is a call-by-call safe harbor based on reasonable analytics including caller ID authentication information. This safe harbor is critical to terminating providers who have told us that “absent a broad safe harbor, voice providers face a real risk of liability for taking action to protect consumers from illegal and unwanted calls.”⁶² The second safe harbor targets bad-actor upstream voice service providers who, whether through negligence or intent, do not police their networks to minimize bad traffic. Taken together, these safe harbors will incentivize all voice service providers to stop not just the individual calls consumers detest, but also the bad-actor upstream voice service providers that have failed to police their networks when provided with reliable information about the likely use of those networks for illegal

⁵⁷ For purposes of this safe harbor, we use the term “bad actor” when discussing an originating or terminating provider that fails to take appropriate steps to prevent their network from being used to originate or transmit illegal calls.

⁵⁸ *Id.* § 4(c)(1)(A) (codified at 47 U.S.C. § 227b(c)(1)(A)).

⁵⁹ *Id.* § 4(c)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)).

⁶⁰ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4892-95, paras. 49-62.

⁶¹ Terminating voice service providers fit the TRACED Act definition of “voice service.” TRACED Act § 4(a)(1).

⁶² Letter from Patrick Halley, Senior Vice President Policy & Advocacy, USTelecom – The Broadband Association, Matthew Gerst, Vice President Regulatory Affairs, CTIA, Steve Morris, Vice President and Deputy General Counsel, NCTA – the Internet and Television Association, to Marlene Dortch, Secretary, FCC, CG Docket No. 17-59, at 2 (filed Jan. 31, 2020) (USTelecom et al. Ex Parte).; *see also*, AT&T July 24, 2019 Comments at 2-4, 9-10, 14; CTIA July 24, 2019 Comments at 3, 6-8, 11; CTIA Aug. 23, 2019 Reply Comments at 2-4; ITTA – The Voice of America’s Broadband Providers Aug. 23, 2019 Reply Comments at 4, 10 (ITTA); NCTA – The Internet and Television Association Aug. 23, 2019 Reply Comments at 3-4 (NCTA); Neustar Aug. 23, 2019 Reply Comments at 4; Numeracle July 24, 2019 Comments at 3; Sprint July 24, 2019 Comments at 2; T-Mobile USA Aug. 23, 2019 Reply Comments at 3 (T-Mobile); Transaction Network Services July 24, 2019 Comments at 7-10 (TNS); USTelecom Aug. 23, 2019 Reply Comments at 3-6; Verizon July 24, 2019 Comments at 11; Verizon Aug. 23, 2019 Reply Comments at 2.

calls.⁶³

22. *Scope of Safe Harbor Protection.* The safe harbors we establish here will protect blocking providers from liability arising from any obligations related to completing the call under the Communications Act and the Commission's rules. A voice service provider that blocks in accordance with these safe harbors will not, for example, be deemed to be in violation of rural call completion obligations. Similarly, call blocking that complies with the safe harbor requirements is presumptively a just and reasonable practice under section 201(b) of the Act. We also make clear that voice service providers that share certain information to combat robocalls do not violate customer proprietary network information (CPNI) obligations under the Act and our rules.⁶⁴

23. *Need for Safe Harbors.* These new safe harbors will encourage voice service providers to block calls in certain defined situations. Robocalls remain a significant consumer problem even after our *Call Blocking Declaratory Ruling and Further Notice*.⁶⁵ By removing regulatory uncertainty, we encourage voice service providers to better protect their customers from unwanted calls. Based on the record of voice service providers stating they will not block without such a safe harbor, we agree with commenters who argue it is necessary to protect consumers.⁶⁶ Though at least one voice service provider has begun the blocking we permitted in June 2019, many have not.⁶⁷ Industry groups have informed us that "absent a broad safe harbor, voice providers face a real risk of liability for taking action to protect consumers from illegal and unwanted calls."⁶⁸

24. The continued problems these calls pose for consumers indicates additional steps are necessary to encourage blocking; Congress confirmed this by passing the TRACED Act. We expect that these safe harbors will better protect consumers from harassing, fraudulent, or otherwise unwanted calls.

1. Safe Harbor Based on Reasonable Analytics

25. First, we adopt a safe harbor from liability under the Communications Act and the Commission's rules for the unintended or inadvertent blocking of wanted calls where terminating voice service providers block based on reasonable analytics that include caller ID authentication information

⁶³ As we made clear in the *STIR/SHAKEN Order*, a broad set of tools is necessary to address the problem of illegal calls. *STIR SHAKEN Order* 34 FCC Rcd at 3256, 3263, paras. 30, 47. Call blocking, and the related safe harbors we adopt today, is one of these tools, and works alongside other tools, such as caller ID authentication.

⁶⁴ Information shared consistent with the safe harbors we adopt today includes, but is not necessarily limited to, information necessary for traceback and information regarding traffic that has been identified as illegal.

⁶⁵ The Commission received over 90,000 complaints between July 1, 2019, and December 31, 2019, indicating that consumers continued to receive unwanted and illegal calls even after the positive measures described in the *Call Blocking Declaratory Ruling and Further Notice* became available as tools for addressing such calls. See FCC, *Consumer Complaint Data Center*, <https://www.fcc.gov/consumer-help-center-data> (last visited March 11, 2020).

⁶⁶ See, e.g., AT&T July 24, 2019 Comments at 2-4, 9-10; Competitive Carriers July 24, 2019 Comments at 2; CTIA July 24, 2019 Comments at 3, 6-7; First Orion July 24, 2019 Comments at 14; ITTA Aug. 23, 2019 Reply Comments at 4; NCTA Aug. 23, 2019 Reply Comments at 3-4; Neustar Aug. 23, 2019 Reply Comments at 4; Numeracle July 24, 2019 Comments at 3; Sprint July 24, 2019 Comments at 2; T-Mobile Aug. 23, 2019 Reply Comments at 3; TNS July 24, 2019 Comments at 7-10; USTelecom Aug. 23, 2019 Reply Comments at 4-6; Verizon Aug 23, 2019 Reply Comments at 2.

⁶⁷ AT&T, *AT&T Call Protect Expands Service* (July 9, 2019), https://about.att.com/story/2019/att_call_protect.html.

⁶⁸ USTelecom et al. Ex Parte at 2.

and the consumer is given the opportunity to opt out.⁶⁹ Consistent with the Commission's statement in the *Call Blocking Declaratory Ruling and Further Notice* and Congress' guidance in the TRACED Act, we require terminating voice service providers that take advantage of this safe harbor to offer these services without a line-item charge to consumers.⁷⁰

26. *Scope of the Safe Harbor.* We find that the safe harbor should be carefully tailored to block only calls reasonably thought to be unwanted or unlawful based on reasonable analytics that include caller ID authentication information, consistent with the TRACED Act. We thus adopt a safe harbor for terminating voice service providers that block calls based on reasonable analytics and caller ID authentication information as described in the *Call Blocking Declaratory Ruling and Further Notice*.⁷¹ We agree with the numerous comments supporting a safe harbor for blocking based on reasonable analytics.⁷² For purposes of this safe harbor, reasonable analytics may include, but are not limited to, the factors we listed in the *Call Blocking Declaratory Ruling*.⁷³ For example, among other factors, terminating voice service providers may consider: large bursts of calls in a short timeframe; low average call duration; a large volume of complaints related to a suspect line; and neighbor spoofing patterns.⁷⁴

27. *Caller ID Authentication Requirement.* To avail themselves of the safe harbor, terminating voice service providers must incorporate caller ID authentication information into their reasonable analytics programs. At this time, only the STIR/SHAKEN caller ID authentication framework satisfies this requirement. As we explain below, however, should we later identify other effective caller ID authentication methods that would satisfy the TRACED Act, including non-IP methods, those methods would also satisfy our requirements here.

28. 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 authentication information transmitted by an upstream voice service provider, and incorporate that information into its analytics where that information is available. The terminating voice service provider may also rely on this safe harbor even when blocking calls where caller ID authentication information is not available, so long as it incorporates caller ID authentication information into its analytics wherever possible.

29. As many commenters note, authentication is not yet either an ubiquitous or a

⁶⁹ In the *Call Blocking Declaratory Ruling and Further Notice*, we made clear that terminating voice service providers may offer opt-out blocking programs based on any reasonable analytics designed to identify unwanted calls. *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4887, para. 34. Reasonable analytics includes caller ID authentication information. As a result, the blocking covered by this safe harbor is consistent with the *Call Blocking Declaratory Ruling and Further Notice* as it simply covers a subset of the blocking permitted there.

⁷⁰ *Id.* at 4890, para. 42; TRACED Act § 4(c)(1)(A) (codified at 47 U.S.C. § 227b(c)(1)(A)).

⁷¹ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4884-90, paras. 26-42; *see also* TRACED Act § 4(c)(1)(A) (codified at 47 U.S.C. § 227b(c)(1)(A)).

⁷² *See, e.g.*, AT&T July 24, 2019 Comments at 2-4, 9-10, 14; CTIA July 24, 2019 Comments at 3, 6-8, 11; CTIA Aug. 23, 2019 Reply Comments at 2-4; ITTA Aug. 23, 2019 Reply Comments at 4, 10; NCTA Aug. 23, 2019 Reply Comments at 3-4; Neustar Aug. 23, 2019 Reply Comments at 4; Numeracle July 24, 2019 Comments at 3; Sprint July 24, 2019 Comments at 2; T-Mobile Aug. 23, 2019 Reply Comments at 3; TNS July 24, 2019 Comments at 7-10; USTelecom Aug. 23, 2019 Reply Comments at 3-6; Verizon July 24, 2019 Comments at 11; Verizon Aug. 23, 2019 Reply Comments at 2.

⁷³ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4888, para. 35.

⁷⁴ *Id.*

comprehensive indicator of whether a consumer should answer a call.⁷⁵ These commenters note that the STIR/SHAKEN standards were not designed to distinguish wanted and unwanted calls and that there may be errors in early stages of deployment.⁷⁶ Originating and terminating voice service providers, however, are now required to implement caller ID authentication into their IP-based networks by June 30, 2021, and we have sought comment on extending this requirement to intermediate voice service providers.⁷⁷ In recognition of these concerns, and of the need to adapt to evolving threats, we give terminating voice service providers flexibility in how to incorporate authentication into their analytics.

30. They may, for example, take into account the level of attestation, including looking at what level of attestation has historically been present where such data is available. Attestation under the SHAKEN framework can take three basic forms. “A” attestation requires that the signing voice service provider: 1) is responsible for the origination of the call onto the network; 2) “[h]as a direct authenticated relationship with the customer and can identify the customer”; and 3) “[h]as established a verified association with the telephone number used for the call.” By contrast, “B” attestation only requires that the first two requirements be met. Finally, “C” attestation is the most limited form of attestation, requiring only that the signing voice service provider both be “the entry point of the call into its VoIP network” and have “no relationship with the initiator of the call (e.g., international gateways).”⁷⁸

31. As a further example, if terminating voice service providers normally see calls from a particular number coming in with “A” attestation, but calls from that number abruptly change to a different attestation level or no attestation and analytics indicate that the calls are likely to be unwanted, a terminating voice service provider may choose to only block the calls without “A” attestation and allow the “A” attested calls from that number to complete for as long as the trend continues. If the terminating voice service provider has identified that calls with “A” attestation previously originating from that number are nevertheless illegal or unwanted based on reasonable analytics, they may block those calls despite the attestation level. Terminating providers may also consider when a call fails the verification process. These are merely examples; the safe harbor is contingent upon incorporating caller ID authentication information into reasonable analytics, but is not contingent on doing so in particular, pre-defined ways.

32. Beyond adhering to the TRACED Act’s directive, we believe that the inclusion of caller ID authentication information will improve the accuracy of call blocking programs and therefore benefit consumers.⁷⁹ Authentication’s inclusion in a broader blocking program will improve blocking decisions. At the same time, we reiterate that voice service providers must apply analytics reasonably in a non-

⁷⁵ See, e.g., CTIA July 24, 2019 Comments at 12-13; Cloud Communications Alliance Aug. 23, 2019 Reply Comments at 4 (CCA); ITTA Aug. 23, 2019 Reply Comments at 4-5; SpoofCard Aug. 22, 2019 Reply Comments at 3; Sprint July 24, 2019 Comments at 2; T-Mobile Aug. 23, 2019 Reply Comments at 3-4; TNS July 24, 2019 Comments at 3-7.

⁷⁶ See, e.g., CTIA July 24, 2019 Comments at 12-13; Cloud Communications Alliance Aug. 23, 2019 Reply Comments at 4; ITTA Aug. 23, 2019 Reply Comments at 4-5; SpoofCard Aug. 22, 2019 Reply Comments at 3; Sprint July 24, 2019 Comments at 2; T-Mobile Aug. 23, 2019 Reply Comments at 3-4; TNS July 24, 2019 Comments at 3-7.

⁷⁷ *STIR/SHAKEN Order* 34 FCC Rcd at 3252-57, 3270-75, paras. 25-31, 61-74.

⁷⁸ ATIS & SIP Forum, Joint ATIS/SIP Forum Standard—Signature-Based Handling of Asserted Information Using toKENs (SHAKEN) at 8 (2017), <https://www.atis.org/sti-ga/resources/docs/ATIS-1000074.pdf> (*SHAKEN Report*). Voice service providers that have implemented STIR/SHAKEN may be able to provide gateway attestation to calls that enter their network from a non-IP network.

⁷⁹ See, e.g., Neustar Aug. 23, 2019 Reply Comments at 4; TNS July 24, 2019 Comments at 7-8.

discriminatory, competitively neutral manner.⁸⁰

33. The TRACED Act acknowledges that voice service providers' ability to deploy STIR/SHAKEN varies because, in part, it is not designed to work on non-IP networks. For this reason, the law allows for alternatives and extensions for voice service providers that may not be able to deploy within 18 months of enactment.⁸¹ As a result, this requirement means that terminating voice service providers with exclusively non-IP based networks will not be able to avail themselves of the safe harbor immediately. We note, however, that the TRACED Act contemplates other potential caller ID authentication technologies when it directs the Commission to take steps to require voice service providers to "take reasonable measures to implement an effective call authentication framework in the non-IP networks of the provider of voice service."⁸²

34. In March of this year, we proposed implementing the TRACED Act's directive to require voice service providers to take "reasonable measures" to implement an effective caller ID authentication framework in the non-IP portions of their networks.⁸³ Should industry develop alternative caller ID authentication technologies that we later determine satisfy this requirement under the TRACED Act, those technologies would also be sufficient to claim the safe harbor.⁸⁴ Further, we recognize that all terminating voice service providers are likely to receive calls from upstream voice service providers with non-IP networks. If a portion of the calls received by the terminating voice service provider are authenticated and the terminating voice service provider is verifying those calls and incorporating that information into a program of reasonable analytics, the safe harbor would still be available for the blocking of calls from non-IP networks. Limiting the safe harbor to authenticated calls could encourage bad actors to ensure that their calls originate or transit on non-IP networks, undermining the value of the safe harbor. Additionally, we note that terminating voice service providers that cannot deploy caller ID authentication rapidly may still take steps pursuant to the *Call Blocking Declaratory Ruling and Further Notice* to protect their customers.

2. Safe Harbor for Blocking of Bad-Actor Providers

35. In our *Call Blocking Declaratory Ruling and Further Notice*, we sought comment on a safe harbor that would "target those voice service providers that are most likely to facilitate unlawful robocallers."⁸⁵ We mentioned a number of potential criteria for this safe harbor, including voice service providers that "do not appropriately sign calls *and* do not participate in the Industry Traceback Group," and "those that do not appropriately sign calls and send hundreds, thousands, or millions of apparently unwanted calls to American consumers."⁸⁶

36. We clarify that voice service providers may block calls from certain bad-actor upstream

⁸⁰ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4887-89, paras. 34, 38.

⁸¹ TRACED Act § 4(b)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)).

⁸² *Id.*

⁸³ *STIR/SHAKEN Order* 34 FCC Rcd at 3283-84, paras. 96-101; *see also* TRACED Act § 4(b)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)).

⁸⁴ We sought comment on one potential technology, out-of-band STIR, in our March Order and NPRM but noted that it did not appear to be sufficiently developed to form the basis of a specific implementation requirement at that time. *STIR/SHAKEN Order*, 34 FCC Rcd at 3283-84, paras. 97-99. To be clear, at this time, only STIR/SHAKEN caller ID authentication information is sufficient to qualify for the safe harbor.

⁸⁵ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4894, para. 55.

⁸⁶ *Id.*

voice service providers and we establish a safe harbor from liability related to call completion obligations arising under the Communications Act and the Commission's rules for this blocking. Unlike the reasonable analytics safe harbor, we focus here on criteria that clearly indicate a particular upstream voice service provider is facilitating, or at a minimum shielding, parties originating illegal calls.⁸⁷ We believe this second, provider-based safe harbor complements the first safe harbor by incentivizing upstream voice service providers to better police their networks by raising the cost of passing along bad traffic.

37. *Permitting Provider-Based Blocking.* Until very recently, we have only authorized call blocking for particular calls, not based on the provider. In April of this year, the Commission's Enforcement Bureau and the FTC jointly issued letters making clear that, in some instances, provider-based blocking is appropriate.⁸⁸ Today, we clarify that voice service providers are permitted to block calls from "bad-actor" upstream voice service providers. Specifically, we make clear that a voice service provider may block calls from an upstream voice service provider that, when notified that it is carrying bad traffic by the Commission, fails to effectively mitigate such traffic or fails to implement effective measures to prevent new and renewing customers from using its network to originate illegal calls. The notification from the Commission will be based on information obtained through traceback, likely in coordination with the Traceback Consortium. Failure of the bad-actor provider to sign calls may be an additional factor in this notification. The safe harbor thus provides protection to a voice service provider that blocks all calls from a bad-actor voice service provider.

38. We thus agree with commenters that support blocking against a particular source of bad traffic and not just call-by-call blocking.⁸⁹ AARP, for example, supports a safe harbor for blocking of voice service providers that do not appropriately sign calls and do not participate in traceback, calling it "low hanging fruit."⁹⁰ And AT&T encourages us to extend any safe harbor beyond simply blocking against voice service providers that do not "appropriately sign" calls, instead urging us to enable industry stakeholders to identify and take action against the most egregious actors.⁹¹ Because specific providers can pass large volumes of bad traffic, we believe a robust blocking scheme includes both blocking of traffic coming from the networks of bad actor providers along with blocking of individual calls.

39. *Notification and Effective Mitigation Measures.* If the Commission identifies illegal traffic on the network, it may notify the voice service provider that it is passing identified bad traffic and that specific calls are illegal. Upon receipt of this notification, the voice service provider should promptly investigate and, if necessary, prevent the illegal caller from continuing to use the network to place illegal calls. If the upstream voice service provider fails to take effective mitigation measures within 48 hours, a voice service provider may then, after notifying the Commission as discussed below, block calls from this bad-actor provider. Similarly, if the upstream voice service provider fails to implement effective measures to prevent new and renewing customers from using its network to originate illegal calls, a voice service provider may also block calls from this bad-actor provider.

40. Recent experience with COVID-19-related scam calls has shown that voice service providers are able to satisfy this criterion. In April and May of this year, the Commission's Enforcement Bureau and the FTC wrote a total of six gateway providers that were facilitating COVID-19-related scam

⁸⁷ We note that, by necessity, a terminating voice service provider can only block calls on these grounds from an upstream voice service provider from which they directly receive traffic.

⁸⁸ See BLMarketing Letter; Connexum Letter; SIPJoin Letter.

⁸⁹ See, e.g., AARP July 24, 2019 Comments at 10-11; AT&T July 24, 2019 Comments at 19-21.

⁹⁰ AARP July 24, 2019 Comments at 10-11.

⁹¹ AT&T July 24, 2019 Comments at 19-21.

robocalls, according to the USTelecom Industry Traceback Group, a consortium of phone companies that help officials track down the originator of suspect calls.⁹² The letters warned these companies that if they did not stop such traffic, the Commission would authorize other U.S. voice service providers to block all calls entering the U.S. via these gateway providers. The Commission also wrote to USTelecom to ask its members to begin blocking calls from these providers if the flood of such scam robocalls was not cut off within 48 hours.⁹³ All companies receiving the April letters responded, informing the Commission that each of them had cut off the call traffic from the malicious actors generating COVID-19-related scam robocalls.⁹⁴ These claims were verified by USTelecom and demonstrate that this criterion is achievable for voice service providers.⁹⁵

41. We note that a voice service provider must take at least two discrete actions to resolve a notification request. First, it must “effectively mitigate” the identified bad traffic—that means determining the source of the traffic and preventing that source from continuing to originate such traffic. This criterion recognizes that illegal calls can occur on any network, and we recognize that a voice service provider may not be immediately aware that particular calls are illegal prior to receiving notice. Second, it must implement effective safeguards to prevent new and renewing customers from using their network as a platform to originate illegal calls. Voice service providers generally know who their customers are, particularly those seeking to make high volumes of calls. And so a notified voice service provider must refuse to establish new or renewed contracts that would allow bad actors to originate a high volume of illegal calls.⁹⁶ Failure by a notified voice service provider to effectively mitigate identified bad traffic or take effective safeguards to prevent new and renewing customers from using their network satisfies this safe harbor.⁹⁷

42. A notified voice service provider should inform the Commission and the Traceback

⁹² See FCC, FTC Demand Gateway Providers Cut Off Robocallers Perpetrating Coronavirus-Related Scams from United States Telephone Network, Press Release, Apr. 3, 2020, <https://www.fcc.gov/document/fcc-ftc-demand-gateway-providers-cut-covid-19-robocall-scammers>; see also BLMarketing Letter; Connexum Letter; Intelepeer Letter; PTGi Letter; RSCom Letter.

⁹³ See Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission, Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Jonathan Spalter, President & CEO, USTelecom (Apr. 3, 2020) at 2, (available at <https://www.fcc.gov/document/fcc-ftc-demand-gateway-providers-cut-covid-19-robocall-scammers>); Letter from Rosemary C. Harold, Chief, Enforcement Bureau, Federal Communications Commission, Lois C. Greisman, Associate Director, Division of Marketing Practices, Federal Trade Commission, to Jonathan Spalter, President & CEO, USTelecom (May 20, 2020) at 2 (available at <https://docs.fcc.gov/public/attachments/DOC-364482A2.pdf>).

⁹⁴ Press release, FCC, FCC, FTC Demand Robocall-enabling Service Providers Cut Off COVID-19-related International Scammers (May 20, 2020), <https://docs.fcc.gov/public/attachments/DOC-364482A1.pdf>.

⁹⁵ Brian Weiss, *FCC, FTC Credit Industry Traceback Group for Work to Slow COVID-19 Robocall Scams* (Apr. 3, 2020), <https://www.ustelecom.org/fcc-ftc-credit-industry-traceback-group-for-work-to-slow-covid-19-robocall-scams/>.

⁹⁶ Certain effective measures, such as limiting access to high-volume origination services, may require contractual changes. For this reason, we believe it is best to limit this to new contracts and renewals.

⁹⁷ To be clear, we recognize that it may be impossible for a voice service provider to completely prevent origination of illegal calls. Effective measures instead are intended to reduce the risk of illegal calls by ensuring that high-volume origination services are not made readily available to customers that do not have a legitimate need for those services.

Consortium within 48 hours of steps it has taken to mitigate the illegal traffic.⁹⁸ A voice service provider that is aware of the notice provided to an upstream voice service provider must consider whether the steps taken were sufficient to effectively mitigate the identified bad traffic. We decline to mandate specific metrics to make this determination, but expect that they will generally involve a significant reduction in the traffic stemming from a particular illegal calling campaign or regarding calls from the particular upstream voice service provider.⁹⁹ The voice service provider may meet this criterion if it determines, in good faith and upon a rational basis, that the upstream voice service provider has failed to effectively mitigate the illegal traffic. We expect the voice service provider to inform the upstream voice service provider of that determination in order to give the upstream voice service provider another opportunity to take further mitigation steps. In addition, before taking any action to block calls of the upstream voice service provider, a voice service provider must provide the Commission with notice and a brief summary of its basis for making such a determination. By obtaining such information from both parties, the Commission will be in a position to monitor the actions of both parties prior to commencement of any blocking.

43. A notified voice service provider should also inform the Commission and the Traceback Consortium within a reasonable period of time of the steps it takes to prevent new and renewing customers from originating illegal calls. Such disclosure need not include information regarding specific customers; instead, the focus should be on procedures or safeguards the voice service provider has put in place for all customers. Failure to provide this information within a reasonable time shall be equivalent to having failed to have effective measures in place for purposes of the safe harbor. Where upstream voice service providers disclose their measures, a voice service provider may in good faith assess whether the measures are effective based on objective criteria, such as whether customers can show a legitimate business need for those services. Again, before taking any action to block calls of the upstream voice service provider, a voice service provider must provide the Commission with notice and a brief summary of its basis for making such a determination. To be clear, we do not expect that a voice service provider will be able to prevent all illegal traffic. We do, however, expect that a voice service provider's due diligence can detect problems before they occur.

44. *Risk of Legal Calls Being Blocked.* We find that the benefits of this safe harbor outweigh the potential costs of blocking some legal calls in the process. Illegal calls have been a pernicious problem for many years. Voice service providers are in the best position to detect and combat this problem. Accordingly, we believe that enabling voice service providers to use all available technologies and methodologies at their disposal without fear of liability is crucial to combat illegal calls. This safe harbor encourages voice service providers to both mitigate bad traffic once they have actual notice of that traffic, and to take proactive steps to prevent their networks from being used to transmit illegal calls.

45. Not all commenters supported the approach we adopt here. Though many commenters did not discuss network-based blocking specifically, TelTech argued that network-based blocking should

⁹⁸ The Traceback Consortium, as described in the TRACED Act, is well positioned to receive, and help voice service providers act on, these notifications. The consortium's purpose is to conduct private-led traceback requests and, as was the case with USTelecom's participation in the COVID-19 scam issue, may play a role in identifying illegal traffic initially and determining if the suspect traffic is successfully addressed.

⁹⁹ For example, if complaints clearly identify the specific campaign, a 50% reduction in complaints regarding that campaign may be sufficient to constitute effective mitigation, as that would likely represent a significant decrease in consumers receiving these calls. Similarly, a reduction by 20% of complaints regarding calls from a particular upstream voice service provider may be sufficient. We expect that, where complaint reduction is judged relative to the entire call stream, the reduction may be smaller while still representing a significant decrease.

not be permitted prior to a comprehensive critical calls list.¹⁰⁰ We agree that critical calls are of the highest importance, and below we require all voice service providers to make all reasonable efforts to prevent emergency calls from being blocked. The purpose of the safe harbor is to allow voice service providers to identify and block calls from upstream voice service providers that facilitate unlawful robocallers.¹⁰¹

3. Alternative Safe Harbor Proposals

46. In adopting the safe harbors above, we disagree with commenters who oppose a safe harbor at this time.¹⁰² Several ask us to delay any safe harbor until STIR/SHAKEN is fully implemented.¹⁰³ We find that, even though we have mandated implementation of the framework by June 30, 2021, consumers should benefit from advanced call blocking now, while the unwanted robocalls problem continues. Delaying relief until STIR/SHAKEN is fully implemented would force consumers to continue to suffer the invasion of privacy that these calls bring.

47. Opposing commenters cite concerns about erroneous blocking to support denying consumers the additional protections a safe harbor would afford against a tide of unwanted calls.¹⁰⁴ With regard to the first safe harbor we adopt, as the Commission has stated previously, consumers should have the choice as to which calls they receive; the first safe harbor we establish applies to blocking offered on an opt-out basis. Stated differently, a consumer should have the choice to accept some level of risk of erroneous blocking in exchange for additional protections against unwanted calls. Further, we mitigate the risk of erroneous blocking by limiting it to blocking done under a program using reasonable analytics to identify and prevent the blocking of wanted calls. And we encourage callers to work with voice service providers, along with their blocking and analytics partners, to ensure that they accurately identify calls before they block any calls. While the second safe harbor we adopt is not based on consumer consent, it is tailored to address the behavior of voice service providers that facilitate illegal calls, a step which we believe is necessary in order to restore trust in the network. We encourage callers to do their own due diligence and ensure that the voice service provider they use to originate calls is taking the steps we outline in that safe harbor to avoid any risk of blocking.

48. We further decline to adopt other safe harbors we sought comment on in the *Call Blocking Declaratory Ruling and Further Notice*. This includes both safe harbors we proposed that took into account only STIR/SHAKEN caller ID authentication information without incorporating other reasonable analytics.¹⁰⁵ We agree with the many commenters who oppose them because, as they note, STIR/SHAKEN does not distinguish legal calls from illegal ones,¹⁰⁶ and blocking solely based on the

¹⁰⁰ TelTech Aug. 22, 2019 Reply Comments at 11.

¹⁰¹ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4894, para. 55.

¹⁰² See, e.g., ACA International July 24, 2019 Comments at 6; Alarm Industry Communications Committee July 24, 2019 Comments at 3 (AICC); Credit Union National Association Aug. 23, 2019 Reply Comments at 3 (CUNA); INCOMPAS Aug. 23, 2019 Reply Comments at 3-4; Securus Technologies Aug. 26, 2019 Reply Comments at 4 (Securus).

¹⁰³ See, e.g., ABA et al. July 24, 2019 Comments at 4; Consumer Bankers Association July 25, 2019 Comments at 2 (CBA).

¹⁰⁴ See, e.g., Alarm Industry Communications Committee Aug. 23, 2019 Reply Comments at 3-4; CBA July 25, 2019 Comments at 1; CUNA Aug. 23, 2019 Reply Comments at 3.

¹⁰⁵ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4892-96, paras. 49-62.

¹⁰⁶ See, e.g., AT&T July 24, 2019 Comments at 8-9; CCA Aug. 23, 2019 Reply Comments at 4; CTIA July 24, 2019 Comments at 12-13; ITTA Aug. 23, 2019 Reply Comments at 5-8; NTCA – The Rural Broadband Association July

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standard is thus likely to block an unacceptably high volume of lawful, and even wanted, calls, particularly in the early stages of deployment.¹⁰⁷ While STIR/SHAKEN will provide significant benefits, we agree that it is best viewed as part of a larger, more comprehensive approach. Though some commenters did support STIR/SHAKEN-based safe harbors to facilitate deployment¹⁰⁸ only where calls deliberately circumvent STIR/SHAKEN or where attestation fails,¹⁰⁹ or support such a safe harbor where both voice service providers have implemented STIR/SHAKEN,¹¹⁰ we are concerned that, at this time, blocking based solely on STIR/SHAKEN information is likely to be both over- and under-inclusive. This concern is particularly important prior to full deployment and while some voice service providers have networks that include both IP and non-IP. Further, were we to authorize blocking based solely on caller ID authentication information, this would increase the risk that voice service providers “subject to a delay in compliance” would be unreasonably blocked because their calls could not be authenticated.¹¹¹

49. We also decline to adopt the broad safe harbor some voice service providers seek.¹¹² Industry groups encouraged us to provide a broad and flexible safe harbor that extended to “all reasonable blocking, labeling, and trust identification measures because they are often used together to assess calls and give consumers as much information as possible.”¹¹³ This proposed safe harbor would have covered network-level blocking as well as opt-in or opt-out blocking, and would allow voice service providers to take “one or more reasonable action(s)” that were not specifically enumerated and that gave the voice service provider a “good-faith reason to believe it was an illegal or unwanted robocall event.”¹¹⁴

50. We recognize that voice service providers need flexibility in order to adapt to robocalling programs.¹¹⁵ Many callers, however, have raised valid concerns about overbroad blocking.¹¹⁶ We find

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24, 2019 Comments at 12 (NTCA); SpoofCard Aug. 22, 2019 Reply Comments at 3; TelTech Systems Aug. 22, 2019 Reply Comments at 4 (TelTech); TNS July 24, 2019 Comments at 4-5; USTelecom July 24, 2019 Comments at 7; USTelecom Aug. 23, 2019 Reply Comments at 4.

¹⁰⁷ See, e.g., PRA Group July 24, 2019 Comments at 2 (PRA); ITTA Aug. 23, 2019 Reply Comments at 5-8; Noble Systems Corporation Aug. 23, 2019 Reply Comments at 4 (Noble Systems); SpoofCard Aug. 22, 2019 Reply Comments at 3, 8; TelTech Aug. 22, 2019 Reply Comments at 2.

¹⁰⁸ See, e.g., Comcast July 24, 2019 Comments at 7; Twilio July 24, 2019 Comments at 2.

¹⁰⁹ See, e.g., Capio July 24, 2019 Comments at 3; Comcast July 24, 2019 Comments at 5-6; Consumer Reports et al July 24, 2019 Comments at 8; T-Mobile July 24, 2019 Comments at 7; TransNexus July 19, 2019 Comments at 3.

¹¹⁰ See, e.g., TransNexus July 19, 2019 Comments at 4; WTA Aug. 23, 2019 Reply Comments at 5.

¹¹¹ TRACED Act § 4(c)(1)(D).

¹¹² See, e.g., USTelecom et al. Ex Parte; see also AT&T July 24, 2019 Comments at 2-4, 9-10; Competitive Carriers July 24, 2019 Comments at 2; CTIA July 24, 2019 Comments at 3, 6-7; ITTA Aug. 23, 2019 Reply Comments at 4; NCTA Aug. 23, 2019 Reply Comments at 3-4; Sprint July 24, 2019 Comments at 2; T-Mobile Aug. 23, 2019 Reply Comments at 3; TNS July 24, 2019 Comments at 7-10; USTelecom Aug. 23, 2019 Reply Comments at 4-6; USTelecom et al. Ex Parte at 2; Verizon Aug 23, 2019 Reply Comments at 2.

¹¹³ USTelecom et al. Ex Parte at 4.

¹¹⁴ The USTelecom et al. Ex Parte provided the following examples of reasonable steps: “[p]erformed research on the phone number to reasonably determine the call was highly likely to be an illegal robocall; [i]mplemented reasonable procedures to block calls in a manner consistent with the Commission’s rules; or [u]tilized reasonable analytics, which may include information provided by call authentication frameworks.” They stated that reasonable steps were not limited to those listed. *Id.* at 6.

¹¹⁵ *Id.* at 3.

that such a broad safe harbor that lacks objective criteria could lead to widespread blocking of wanted calls, abuses such as blocking for anticompetitive reasons, and make enforcement difficult. While fear of retaliation may reduce the likelihood of abuse, we find that the risk of such behavior going unrecognized is higher in the case of such a broad authorization of call-by-call blocking as the behavior could be spread across calls from many upstream voice service providers. The lack of any clear standards would make it extremely difficult to determine whether a particular approach is reasonable, both for callers and other voice service providers that are concerned about anticompetitive behavior and for enforcement. The safe harbor we adopt today gives voice service providers flexibility to adapt their blocking to evolving call patterns while enabling us to enforce against any blocking programs that are unreasonable, which would include any programs not implemented in a non-discriminatory, competitively neutral manner.

B. Protections Against Erroneous Blocking

51. In our June 2019 *Call Blocking Declaratory Ruling and Further Notice* we stated that “we believe that a reasonable call-blocking program instituted by default would include a point of contact for legitimate callers to report what they believe to be erroneous blocking as well as a mechanism for such complaints to be resolved.”¹¹⁷ In addition, we sought comment on protections to ensure that wanted calls are not blocked.¹¹⁸ There is strong support in the record for transparency and redress mechanisms, both of which are an essential part of any blocking regime.¹¹⁹ The TRACED Act specifically directs us to ensure that robocall blocking services provided on an opt-out or opt-in basis are provided with transparency and effective redress options for callers.¹²⁰

52. *Protections for Critical Calls.* We require that all voice service providers must make all reasonable efforts to ensure that calls from PSAPs and government outbound emergency numbers are not blocked. We have repeatedly made clear that we expect all voice service providers to ensure that critical calls complete, and the TRACED Act directs us to ensure that voice service providers make “all reasonable efforts.”¹²¹

53. Calls to PSAPs via 911 are also extremely important and today we make clear that they should never be blocked unless the voice service provider knows without a doubt that the calls are unlawful. Though some unwanted and illegal calls may reach 911 call centers, we believe that 911 call centers themselves are best equipped to determine how to handle the calls they receive. We will remain vigilant for any such blocking and will take enforcement action as necessary.

54. *Point of Contact for Blocking Disputes.* We require that any voice service provider that blocks calls must designate a single point of contact for callers, as well as other voice service providers, to

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¹¹⁶ See, e.g., CBA July 25, 2019 Comments at 1-2; CUNA Aug. 23, 2019 Reply Comments at 3; INCOMPAS Aug. 23, 2019 Reply Comments at 3-4; Letter from American Bankers Association et al., to Marlene H. Dortch, Secretary, FCC, CG Docket No. 17-59, WC Docket No. 17-97 (filed March 4, 2020).

¹¹⁷ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Red at 4889, para. 38.

¹¹⁸ *Id.* at 4895, para. 58.

¹¹⁹ See, e.g., CCA Aug. 23, 2019 Reply Comments at 5; CUNA Aug. 23, 2019 Reply Comments at 3-4; INCOMPAS Aug. 23, 2019 Reply Comments at 4; Numeracle July 24, 2019 Comments at 1-2; RingCentral July 24, 2019 Comments at 9-10; Securus Aug. 26, 2019 Reply Comments at 6.

¹²⁰ TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)).

¹²¹ See *id.* § 10(b) (codified at 47 U.S.C. § 227(j)(1)(C)). We decline to prescribe specific requirements for what “all reasonable efforts” should include as this is a fact specific-determination that will need to be evaluated on a case-by-case basis.

report blocking errors at no charge to callers or other voice service providers.¹²² Blocking providers must investigate and resolve these blocking disputes in a reasonable amount of time that is consistent with industry best practice. What amount of time is “reasonable” may vary depending on the specific circumstances of the blocking and the resolution of the blocking dispute. Blocking providers must also publish contact information clearly and conspicuously on their public-facing websites. We further require that when a caller makes a credible claim of erroneous blocking and the voice service provider determines that the calls should not have been blocked, a voice service provider must promptly cease blocking calls from that number unless circumstances change.

55. Consistent with what we permitted in June 2019, consumers may choose, either via opt in or opt out consent, to have their terminating voice service provider block categories of calls that may include legal calls. In these cases, terminating voice service providers are not obliged to cease blocking such calls merely because the caller claims they are legal. Rather, a terminating voice service provider’s analysis should hinge on whether the disputed calls fit within the blocking categories to which their customers have consented.

56. Recognizing that wanted calls can, and sometimes do, have traits similar to unwanted calls, the *Call Blocking Declaratory Ruling and Further Notice* sought comment on ways to protect callers from erroneous blocking.¹²³ Callers commenting on this proceeding have expressed their frustration with the blocking of lawful calls and the difficulty of making themselves heard as they seek to contest whether voice service providers should be blocking their calls.¹²⁴ As a result, many callers supported extensive protections.¹²⁵ Other commenters, however, urged us to ensure that voice service providers had flexibility to determine which methods to use.¹²⁶ We find that the requirements we adopt today strike an appropriate balance between the legitimate needs of both callers and voice service providers. We believe the criteria and associated safeguards we have established today in permitting call blocking will greatly reduce erroneous blocking.

57. *No Critical Calls List at this Time.* We decline to adopt a Critical Calls List at this time, in light of a record largely in opposition and in recognition that such a list would likely to do more harm than good.¹²⁷ Though some commenters supported the Critical Calls List,¹²⁸ or even sought a more expansive list than we proposed,¹²⁹ many others raised significant concerns and urged caution in adopting

¹²² See TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)).

¹²³ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4898, para. 70.

¹²⁴ See, e.g., ABA et al. Ex Parte; AICC July 24, 2019 Comments at 3; Professional Association for Consumer Engagement July 24, 2019 Comments at 4-5 (PACE); Sirius XM July 24, 2019 Comments at 4-6.

¹²⁵ See, e.g., ACA International July 24, 2019 Comments at 2, 10-14; CBA July 25, 2019 Comments at 3; CCA Aug. 23, 2019 Reply Comments at 5; CUNA Aug. 23, 2019 Reply Comments at 1, 3-4; INCOMPAS Aug. 23, 2019 Reply Comments at 4; Numeracle July 24, 2019 Comments at 1-3; RingCentral July 24, 2019 Comments at 9-10; Securus Aug. 26, 2019 Reply Comments at 6-7.

¹²⁶ See, e.g., AT&T Aug. 23, 2019 Comments at 6-7; CTIA July 24, 2019 Comments at 17; CTIA Aug. 23, 2019 Comments at 7; T-Mobile July 24, 2019 Comments at 9; TNS July 24, 2019 Comments at 13-14.

¹²⁷ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4896-98, paras. 63-70.

¹²⁸ See, e.g., ACT – The App Association July 24, 2019 Comments at 6 (ACT); Consumers Report et al. July 24, 2019 Comments at 1, 9; INCOMPAS July 24, 2019 Comments at 10-12; Larimer Emergency Telephone Authority July 23, 2019 Comments at 2 (LETA); NCTA July 24, 2019 Comments at 10-11; PRA July 24, 2019 Comments at 3.

¹²⁹ See, e.g., ABA et al. July 24, 2019 Comments at 2, 6-10 (seeking the inclusion of numbers for fraud alerts, data breach notifications, remediation messages, electric utility outage notifications, product safety recall notices,

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a list at this time.¹³⁰ We agree with those commenters that urged us to refrain from adopting such a list at this time and decline to do so in this *Order*. The record shows that even a well-maintained list would be subject to abuse until illegal caller ID spoofing is eliminated. Bad actors would have incentive to seek numbers on the list and spoof them, providing a virtual free pass to unlimited illegal robocalling because these numbers would, by virtue of being on a Critical Calls List, not be eligible for blocking.¹³¹ With our decision today, we ensure that critical call numbers are safeguarded by preventing their abuse by illegal robocallers. We do not, however, foreclose the possibility of adopting such a list at a future point in time should circumstances change.

58. *Other Protections.* We decline at this time to require other protections we sought comment on in the *Call Blocking Declaratory Ruling and Further Notice*, such as requiring voice service providers to send SIP or Integrated Services Digital Network User Part codes when calls are blocked.¹³² Though many commenters, particularly those placing calls, supported extensive protections,¹³³ others argued that these protections are unnecessary and potentially harmful.¹³⁴ While additional protections may benefit lawful callers, they also have the potential to tip off bad actors and help them circumvent call blocking technologies.¹³⁵ We agree with commenters that support allowing voice service providers flexibility to determine which specific mechanisms they wish to use.¹³⁶

C. Measuring Effectiveness of Robocall Solutions

59. In the *Call Blocking Declaratory Ruling and Further Notice*, we sought comment on establishing a mechanism to provide consumers with information regarding the effectiveness of voice service providers' robocall solutions.¹³⁷ The TRACED Act requires the Commission to submit a report on the implementation of call authentication, including the efficacy of that program, to Congress in December 2020.¹³⁸ And the Commission has already directed several bureaus to prepare two reports on

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healthcare reminders and prescription notices, and mortgage servicing calls required by federal or state law); AICC July 24, 2019 Comments at 1, 4 (seeking the inclusion of alarm company central station numbers on the list); American Association of Healthcare Administrative Management July 24, 2019 Comments at 2, 4 (seeking to include healthcare-related calls) (AAHAM); CBA July 25, 2019 Comments at 3 (seeking the inclusion of numbers from which fraud alerts, low balance notifications, and data breach notifications are made); Securus July 24, 2019 Comments at 6 (seeking the inclusion of inmate calling numbers).

¹³⁰ See, e.g., Boulder Regional Emergency Telephone Service Authority July 24, 2019 Comments at 5 (BRETSA); Noble Systems Aug. 23, 2019 Reply Comments at 6; PACE July 24, 2019 Comments at 6; Quicken Aug. 23, 2019 Reply Comments at 5; TNS July 24, 2019 Comments at 10; USTelecom July 24, 2019 Comments at 9.

¹³¹ See, e.g., BRETSA July 24, 2019 Comments at 5; PACE Jul 24, 2019 Comments at 6; Quicken Aug. 23, 2019 Reply Comments at 5.

¹³² *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4895, para. 58.

¹³³ See, e.g., ABA et al. Ex Parte 3-4; ACA International July 24, 2019 Comments at 2, 10-14; CBA July 25, 2019 Comments at 3; Numeracle July 24, 2019 Comments at 1-3; Securus Aug. 26, 2019 Comments at 6-7.

¹³⁴ CTIA Aug. 23, 2019 Reply Comments at 7; T-Mobile July 24, 2019 Comments at 9; TNS July 24, 2019 Comments at 13-14.

¹³⁵ See, e.g., CTIA Aug. 23, 2019 Reply Comments at 7.

¹³⁶ See, e.g., AT&T Aug. 23, 2019 Reply Comments at 6-7; CTIA Aug. 23, 2019 Reply Comments at 7; T-Mobile July 24, 2019 Comments at 9; TNS July 24, 2019 Comments at 13-14.

¹³⁷ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4902, para. 83.

¹³⁸ TRACED Act §4(b)(3).

the state of deployment of advanced methods and tools to eliminate such calls, including the impact of call blocking on 911 and public safety.¹³⁹ The Commission released the first report on June 25, 2020; the second is due in 2021.¹⁴⁰ These reports aim to evaluate the effectiveness of voice service providers' call blocking tools. We decline to establish yet another mechanism in light of our multiple ongoing efforts to measure and report on the effectiveness of robocall solutions.

D. Legal Authority

60. We find that we have ample legal authority to establish the rules we adopt today. We find authority for both safe harbors in sections 201(b), 202(a), 251(e), and the Truth in Caller ID Act. The first safe harbor and several other provisions we adopt today find further support in the TRACED Act.

61. Our legal authority for all of these rules stems in part from sections 201(b) and 202(a) of the Communications Act, which prohibit unjust and unreasonable practices and unjust and unreasonable discrimination¹⁴¹—and thus have formed the basis for the Commission's historic prohibitions on call blocking.¹⁴² Here, we find that the call-blocking safe harbors we adopt in this *Order* represent a determination that such call blocking is just and reasonable under section 201(b) of the Act. The protections we adopt for lawful calls are a necessary corollary to these safe harbors to ensure that lawful traffic is not impeded without the consent of the call recipient.

62. We also find that consumer-driven call blocking, such as described in the reasonable analytics safe harbor, is an enhancement of service, not a “discontinuance” or “impairment” of service to a “community, or part of a community,” within the meaning of section 214(a).¹⁴³ To the extent that the reasonable analytics safe harbor we establish above authorizes blocking of unwanted, rather than simply illegal, calls, we note that this blocking is done with consumer consent. We find, as we did in the June 2019 *Call Blocking Declaratory Ruling and Further Notice*, that opt-out call-blocking programs are generally just and reasonable practices (not unjust and unreasonable practices) under section 201 and enhancements of service (not impairments of service) under section 214.¹⁴⁴

63. Additionally, the Commission is charged with prescribing regulations to implement the Truth in Caller ID Act, which made unlawful the spoofing of Caller ID information “in connection with any telecommunications service or IP-enabled voice service . . . with the intent to defraud, cause harm, or wrongfully obtain anything of value”¹⁴⁵ Given the continuing and ever-evolving schemes by illegitimate callers to harm and defraud consumers using spoofed Caller ID information, the two safe harbors we adopt today are appropriate steps to facilitate action by terminating voice service providers to prevent unlawful spoofing and protect consumers. Specifically, these safe harbors, in part, allow terminating voice service providers to prevent illegally spoofed calls from ever reaching American consumers.

¹³⁹ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4902, para. 83

¹⁴⁰ *Id.*

¹⁴¹ 47 U.S.C. §§ 201, 202.

¹⁴² *See, e.g., Call Blocking Order and FNPRM*, 32 FCC Rcd at 9726, para. 60.

¹⁴³ 47 U.S.C. § 214(a).

¹⁴⁴ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4891-92, para. 47.

¹⁴⁵ 47 U.S.C. § 227(e). This provision grants specific authority to the Commission to “prescribe regulations to implement” it. *Id.* § 227(e)(3)(A).

64. Further, section 251(e) of the Act gives the Commission authority over the use and allocation of numbering resources in the United States.¹⁴⁶ We exercise this authority in our safe harbors to make clear that use of North American Numbering Plan (NANP) numbers for unlawful purposes is not permitted. Callers unlawfully using, or purporting to use, NANP numbers that are unlawful have no legitimate interest in those calls reaching consumers.

65. The TRACED Act confirms our legal authority for many of the rules we adopt today. First, the reasonable analytics safe harbor we adopt implements section 4(c) of the Act, which directs the Commission to promulgate rules “establishing when a provider of voice service may block a voice call based, in whole or in part, on information provided by the call authentication frameworks.”¹⁴⁷ This safe harbor establishes when a terminating voice service provider may block voice calls based in part on caller ID authentication information. While this safe harbor does not rely solely on caller ID authentication information, it does require terminating voice service providers to take this information, when available, into account before blocking calls.

66. Second, section 10(b) of the TRACED Act provides additional authority for the requirement that terminating voice service providers that block calls must designate a single point of contact and resolve disputes in a reasonable amount of time consistent with industry best practice. Section 10(b) requires us to take a final agency action to ensure that opt-in and opt-out blocking “are provided with transparency and effective redress options” for consumers and callers.¹⁴⁸ In addition, section 10(b) of the TRACED Act provides independent authority for our requirement that originating, intermediate, and terminating voice service providers make all reasonable efforts to ensure that calls from PSAPs and government emergency outbound numbers are completed, as well as that calls to 911 must never be blocked. The TRACED Act requires us to ensure that these blocking programs “make all reasonable efforts to avoid blocking emergency public safety calls.”¹⁴⁹

67. Though one commenter argues that we do not have authority to authorize the blocking of lawful calls,¹⁵⁰ others disagree, pointing to sections 201, 202, and 251(e).¹⁵¹ We recognize that some lawful calls may be blocked under the safe harbors we adopt today, but disagree that we lack the authority to authorize such blocking under the limited circumstances specified here. The first safe harbor includes the same consumer consent element that underlaid our decision in the *Call Blocking Declaratory Ruling and Further Notice*. The second safe harbor recognizes that it is not unjust or unreasonable for a terminating voice service provider to address a pattern of behavior by an upstream voice service provider that is effectively facilitating illegal calls.

E. Summary of Benefits and Costs

68. Although commenting parties did not submit any specific cost or benefit data with respect to our proposed actions, we find it reasonable to expect that the safe harbors we adopt give voice service providers a clear means of avoiding call-blocking disputes and more vigorously blocking unwanted, including illegal, calls on behalf of their customers. The result will be more effective blocking of calls at lower costs. At the same time, we require a process for remedying calls accidentally blocked

¹⁴⁶ 47 U.S.C. § 251(e).

¹⁴⁷ TRACED Act § 4(c) (codified at 47 U.S.C. § 227b(c)).

¹⁴⁸ *Id.* § 10(b) (codified at 47 U.S.C. § 227(j)(1)(A)).

¹⁴⁹ *Id.* § 10(b) (codified at 47 U.S.C. § 227(j)(1)(C)).

¹⁵⁰ See CUNA July 24, 2019 Comments at 10-11; CUNA Aug. 23, 2019 Reply Comments at 1, 6-7.

¹⁵¹ See AT&T July 24, 2019 Comments at 16-19; NCTA Aug. 23, 2019 Comments at 4.

due to our safe harbors. This will substantially reduce any unintended costs of the safe harbors. The safe harbors will enable consumers to enjoy a material share of the benefits of avoiding unwanted and fraudulent calls, which we estimate exceed \$13.5 billion annually.¹⁵² We therefore expect the benefits of more rigorous blocking of unwanted calls to far outweigh the costs of the occasional accidental blocked call that might arise from implementation of our safe harbors, as well as any other implementation costs.

69. In addition, our safe harbors will reduce voice service providers' costs by reducing the time and effort voice service providers would otherwise spend to ensure any call blocking they undertake would not create legal liabilities. Moreover, voice service providers' costs will be reduced by the freeing up of network capacity that occurs when unwanted traffic is blocked.

IV. ORDER ON RECONSIDERATION

70. The June 2019 *Call Blocking Declaratory Ruling and Further Notice* made clear that terminating voice service providers may offer opt-out call blocking services based on reasonable analytics designed to identify unwanted calls.¹⁵³ It further made clear that any opt-in service should make "all feasible efforts" to avoid blocking emergency calls.¹⁵⁴ Finally, it clarified that terminating voice service providers can offer opt-in white list programs that utilize a consumer's contacts list and block all calls from numbers not on that list.¹⁵⁵ In response, the Alarm Industry Communications Committee (AICC) filed a Petition for Clarification or Reconsideration.¹⁵⁶ The American Dental Association (ADA) also filed a letter, which we construe as a Petition for Clarification or Reconsideration.¹⁵⁷ We address each of these petitions in turn and deny the requests or dismiss them as moot.

A. Alarm Industry Communications Committee

71. We decline to grant the AICC's Petition for Clarification or Reconsideration, asking the Commission to clarify that: "(i) direct customer notification of call-blocking programs is necessary; (ii) [] alarm company notifications are the type of emergency communication the Commission cautions voice service providers must safeguard; and (iii) [] voice service providers must implement any call-blocking program in a non-discriminatory fashion."¹⁵⁸

72. First, we decline to clarify that direct consumer notification of call-blocking programs is necessary.¹⁵⁹ AICC urges the Commission to make clear that featuring such information prominently on the terminating voice service provider's website is insufficient to ensure that customers have sufficient information to make an informed choice regarding opt-out call blocking programs. The Declaratory Ruling portion of the *Call Blocking Declaratory Ruling and Further Notice* made clear that any

¹⁵² See *STIR/SHAKEN Order*, 34 FCC Rcd at 3263, paras. 47-48.

¹⁵³ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4887-88, para. 34.

¹⁵⁴ *Id.* at 4888, para. 36.

¹⁵⁵ *Id.* at 4891, para. 46.

¹⁵⁶ Petition for Clarification or Reconsideration of the Alarm Industry Communications Committee, CG Docket No. 17-59, WC Docket No. 17-97 (filed July 8, 2019), <https://ecfsapi.fcc.gov/file/10708029799445/AICC%20Petition%20for%20Recon.v3-signed.pdf> (AICC Petition). We did not receive comments specifically addressing this petition.

¹⁵⁷ American Dental Association July 10, 2019 Comments (ADA Petition). We did not receive comments specifically addressing this letter.

¹⁵⁸ *Id.* at 1.

¹⁵⁹ *Id.* at 1-2.

terminating voice service provider offering call blocking by default must provide sufficient information for consumers to make an informed choice regarding whether to opt out or remain in the program.¹⁶⁰

73. The Commission did not mandate direct consumer notification, and we decline to do so now. We recognize that direct notification is one means by which a voice service provider may notify its customers. Notification on the voice service providers' website, however, is also effective. Rather than mandate direct notification, we give the voice service provider discretion to determine the best means of informing their customers.

74. Second, we decline to clarify that alarm company notifications are the types of emergency notifications the Commission specified should be protected.¹⁶¹ We recognize that alarm company notifications can be extremely important, particularly when it is a question of whether to dispatch emergency services. We encourage alarm companies to take advantage of our requirement in this *Order* that terminating voice service providers that block calls provide a single point of contact for call-blocking issues, and to educate their customers that alarm calls may be blocked if the customer chooses not to opt out of their voice service provider's blocking program. Consequently, we decline to offer clarification on this argument.

75. Finally, we reiterate what we said in the *Call Blocking Declaratory Ruling and Further Notice*: Voice service providers must apply analytics in a non-discriminatory, competitively neutral manner to be reasonable. We see no reason to specify this for each industry that makes calls.¹⁶²

B. American Dental Association

76. We deny or dismiss as moot ADA's request that we: (1) define terms used in the *Declaratory Ruling*; and (2) make clear that dental office numbers should be "provided to voice service providers to be included on the white list."¹⁶³

77. First, we deny ADA's request that we define "large bursts" in the context of "large bursts of calls in a short time frame," though they further ask us for "guidance that clarifies this and other definitions used in the ruling."¹⁶⁴ ADA does not specify other definitions it wants clarified. We decline to prescribe tighter definitions of this term or others used in the *Call Blocking Declaratory Ruling and Further Notice* at this point in the absence of record evidence that it is essential to the completion of wanted calls. In our June 2019 decision, we struck a balance between blocking flexibility and unfettered discretion, and ADA offers no evidence at this point that we need to upset that balance by prescribing definitions that might be used by illegal callers to evade blocking programs.

78. Second, we dismiss as moot ADA's request that dentist office numbers be "included on the white list" because we decline to mandate a Critical Calls List.¹⁶⁵

V. FOURTH FURTHER NOTICE OF PROPOSED RULEMAKING

79. With this *Fourth Further Notice of Proposed Rulemaking*, we seek comment on how we can build on our work in the *Third Report and Order* and further implement the TRACED Act. We

¹⁶⁰ *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4886-87, para. 33.

¹⁶¹ AICC Petition at 2-3.

¹⁶² *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4888, para. 35.

¹⁶³ ADA Petition at 1-2.

¹⁶⁴ *Id.* at 1-2.

¹⁶⁵ *Id.* at 2.

propose to establish an affirmative obligation for voice service providers to respond to certain traceback requests, mitigate bad traffic, and take affirmative measures to prevent customers from originating illegal calls, and we propose to make clear that failure to comply with any of these affirmative obligations is unjust and unreasonable under section 201(b) of the Communications Act.¹⁶⁶ Finally, we propose to require terminating voice service providers that block calls to provide a list of blocked calls to their customers on demand and at no additional charge.

A. Section 4 of the TRACED Act

80. Section 4 of the TRACED Act directs the Commission, among other things, to: (1) establish “when a voice service provider may block a call based in whole or in part on information provided by the call authentication frameworks” with no additional line-item charge; (2) establish “a safe harbor for a provider of voice service from liability for unintended or inadvertent blocking of calls or for the unintended or inadvertent misidentification of the level of trust for individual calls based, in whole or in part, on information provided by the call authentication frameworks”; (3) establish “a process to permit a calling party adversely affected by the information provided by the call authentication frameworks . . . to verify the authenticity of the calling party’s calls”; and (4) ensure “that calls originating from a provider of voice service in an area where the provider is subject to a delay of compliance with the time period described in subsection (b)(1) are not unreasonably blocked because the calls are not able to be authenticated.”¹⁶⁷

81. We tentatively conclude that we have implemented all of section 4(c)(1) except for section 4(c)(1)(C), which directs us to establish “a process to permit a calling party adversely affected by the information provided by” caller ID authentication “to verify the authenticity of the calling party’s calls” and the portion of section 4(c)(1)(B) that addresses the “unintended or inadvertent misidentification of the level of trust for individual calls,” and seek comment on this conclusion. We further seek comment on how best to implement these directives beyond the steps we have taken above in the *Third Report and Order*.

82. *First*, we seek comment on any other instances where we should allow voice service providers to block based in whole or in part on caller ID authentication information. Terminating voice service providers may already block calls based on reasonable analytics including caller ID authentication information. We believe that incorporating caller ID authentication information into other reasonable analytics is the best approach to blocking based on this information. Are there other appropriate ways to approach blocking in part based on caller ID authentication information beyond incorporating that information into other reasonable analytics? We are concerned that blocking based only on such information would be both over and under inclusive. We seek comment on this view. Are there any situations in which blocking based solely on caller ID authentication information would be appropriate, such that we should authorize blocking based “in whole” on caller ID authentication information? Are there any instances where we should permit voice service providers other than terminating voice service providers to block based on caller ID authentication information?

83. *Second*, we seek comment on extending our safe harbor to cover other types of blocking based on caller ID authentication information or the unintended or inadvertent misidentification of the level of trust for individual calls. If we permit other forms of blocking based on caller ID authentication information, is it appropriate to extend the safe harbor to cover these types of blocking? How or why might a voice service provider misidentify the level of trust for a particular call? What liability do they face if they do so?

¹⁶⁶ 47 U.S.C. § 201(b).

¹⁶⁷ TRACED Act § 4(c)(1) (codified at 47 U.S.C. § 227b(c)(1)).

84. *Third*, we seek comment on establishing a process for a calling party adversely affected by caller ID authentication information to verify the authenticity of their calls. What might this process look like? In general, blocking will be done by the terminating voice service provider, but caller ID authentication information is primarily provided by the originating voice service provider that attests to the call. Given this, should the caller contact the terminating voice service provider, the originating voice service provider, or some other entity? We note that the rules we adopt today do not permit blocking based solely on caller ID authentication information. Despite this, are there situations where caller ID authentication information alone can have an adverse effect? If a call is adversely affected due to a combination of caller ID authentication information and, for example, consumer complaints or suspect call patterns, should the same process be available? How might a calling party identify that the caller ID authentication information is the cause of the problem? We seek comment on any other issues we should consider in establishing such a process.

85. *Fourth*, we seek comment on any other steps we should take to ensure that voice service providers that are subject to a delay in compliance consistent with the TRACED Act are not unreasonably blocked because they are not able to be authenticated. We tentatively conclude that, because we do not permit blocking based solely on caller ID authentication information, voice service providers subject to a delay in compliance will not be blocked because their calls cannot be authenticated. The rules we adopt today do not permit blocking of calls solely on the ground that they are unauthenticated. Is this sufficient? Are there other steps we should take and, if so, what are those steps? If we permit other blocking based in whole or in part on caller ID authentication information, would different protections be required?

86. *Fifth*, we tentatively conclude that the safe harbor based on reasonable analytics that include caller ID authentication information properly takes into account the considerations listed in section 4(c)(2) of the TRACED Act.¹⁶⁸ We seek comment on this conclusion. Are there any additional steps we should take to ensure that liability is limited based on the extent to which a voice service provider “blocks or identifies calls based, in whole or in part, on” caller ID authentication information and “implemented procedures based, in whole or in part, on” caller ID authentication information? If so, what would be the most appropriate steps? Are there any additional steps we need to take to ensure the safe harbor considers whether a voice service provider “used reasonable care, including making all reasonable efforts to avoid blocking emergency public safety calls?” If so, what would be the best approach to addressing these issues?

B. Section 7 of the TRACED Act

87. Section 7 directs the Commission to initiate a rulemaking “to help protect a subscriber from receiving unwanted calls or text messages from a caller using an unauthenticated number.”¹⁶⁹ It further directs us to take into consideration certain factors, such as the impact on privacy of a subscriber from unauthenticated calls and the effectiveness of verifying the accuracy of Caller ID information.¹⁷⁰ We seek comment on how to accomplish this directive.

88. We seek comment on additional steps to protect a subscriber from receiving unwanted calls or text messages from unauthenticated numbers. The Commission has mandated that originating and terminating voice service providers implement the STIR/SHAKEN caller ID authentication framework in the IP portions of their networks by June 30, 2021, and proposed a similar mandate on

¹⁶⁸ *Id.* § 4(c)(2).

¹⁶⁹ *Id.* § 7(a).

¹⁷⁰ *Id.* § 7(b).

intermediate voice service providers.¹⁷¹ Wide implementation of STIR/SHAKEN will decrease the amount of calls made by callers using an unauthenticated number, but some callers—including those originating calls on the non-IP networks of originating voice service providers—will still be unable to place calls using an authenticated number. How can our rules protect subscribers from receiving unwanted calls from unauthenticated numbers while not disadvantaging callers whose voice service providers are unable to participate in caller ID authentication or whose calls transit non-IP networks? Might full deployment of STIR/SHAKEN mitigate these harms or improve effectiveness? Why or why not?

89. We further seek specific comment on the issues Congress has directed us to consider. How might the Commission take into consideration “the Government Accountability Office report on combating the fraudulent provision of misleading or inaccurate caller identification information required by section 503(c) of division P of the Consolidated Appropriations Act, 2018 (Public Law 115–141)”?¹⁷² How can we ensure that subscribers or terminating voice service providers can block calls from unauthenticated NANP numbers?¹⁷³ What impact do unauthenticated numbers have on subscriber privacy?¹⁷⁴ Are there concerns regarding the accuracy and effectiveness in verifying Caller ID information that we should consider?¹⁷⁵ What is “the availability and cost of providing protection from the unwanted calls or text messages”?¹⁷⁶ Are services that protect consumers from unwanted calls that are unsigned already available? What are the costs associated with these services?

C. Section 10 of the TRACED Act

90. Section 10 directs the Commission to, not later than one year from enactment of the TRACED Act, take final agency action to ensure that robocall-blocking services provided on an opt-out or opt-in basis are “provided with transparency and effective redress options” for consumers and callers with no line-item charge for consumers or additional charge for callers.¹⁷⁷ Additionally, it directs us to ensure that these services “make all reasonable efforts to avoid blocking emergency public safety calls.”¹⁷⁸ We tentatively conclude that we have implemented this directive as it applies to protections for callers. We seek comment on this conclusion and any further steps we could take. We further seek comment on whether the safe harbors we adopt provide sufficient protections for consumers.

91. *Transparency and Redress.* We seek comment on providing transparency and effective redress options for both consumers and callers.¹⁷⁹ Are the steps we take in the *Third Report and Order* sufficient? What further steps might we take to ensure that both consumers and callers are provided with transparency and effective redress options? How likely are proposed transparency and redress options to benefit illegal callers? Are there any steps we can take to ensure that these options protect lawful callers without benefiting illegal callers?

¹⁷¹ See generally *STIR/SHAKEN Order*.

¹⁷² TRACED Act § 7(b)(1).

¹⁷³ *Id.* § 7(b)(2).

¹⁷⁴ *Id.* § 7(b)(3).

¹⁷⁵ *Id.* § 7(b)(4).

¹⁷⁶ *Id.* § 7(b)(5).

¹⁷⁷ *Id.* § 10(b) (codified at 47 U.S.C. § 227(j)(1)(A) and (B)).

¹⁷⁸ *Id.* (codified at 47 U.S.C. § 227(j)(1)(C)).

¹⁷⁹ *Id.* (codified at 47 U.S.C. § 227(j)(1)(A)).

92. *Costs.* We further seek comment on providing blocking services with no additional line-item charge to consumers and no additional charge to callers for resolving complaints for erroneously blocked calls.¹⁸⁰ If we permit additional forms of blocking, are there options that would reduce the costs to blocking providers or increase benefits to offset these costs? What costs does a blocking provider incur when dealing with complaints of erroneous blocking? Are there steps we can take to reduce these costs while still providing transparency and effective redress?

93. *Emergency Public Safety Calls.* We seek comment on other steps we should take to ensure that emergency public safety calls are not blocked. We have made clear that all voice service providers should make all reasonable efforts to ensure that calls from PSAPs and government emergency outbound numbers are not blocked. We have also made clear that calls to 911 should never be blocked unless the voice service provider knows without a doubt that the call is illegal. We believe that voice service providers have every incentive to ensure that emergency calls are not blocked. We seek comment on this assumption. Are there other steps we should take to ensure that these important calls are never blocked?

D. Requiring Voice Service Providers to Meet Certain Standards

94. In this section, we seek comment on affirmatively requiring voice service providers to: (1) respond to traceback requests from the Commission, law enforcement, or the Traceback Consortium; (2) mitigate bad traffic when notified of that traffic by the Commission; and (3) implement effective measures to prevent new and renewing customers from using its network to originate illegal calls.¹⁸¹ Ideally illegal calls would never make it onto the U.S. public switched telephone network. Only originating or gateway voice service providers can stop illegal calls from ever entering the network, while intermediate voice service providers can prevent these calls from reaching the customers of multiple terminating voice service providers.

95. *Traceback.* We propose to affirmatively require all voice service providers to respond to traceback requests from the Commission, law enforcement, or the Traceback Consortium. Traceback provides valuable information regarding the sources of illegal calls; it can be used to prevent further calls from that source and to inform enforcement actions. Response to traceback requests appears to present a minimal burden to voice service providers, and those voice service providers are the only parties with the information necessary to complete the traceback process.

96. We seek comment on this proposal. Why do voice service providers currently refuse to respond to traceback requests? Are there any valid reasons for voice service provider to refuse to comply with such a traceback request? If so, what can the Commission or industry do to address this issue and improve the traceback process? We propose to sanction the traceback consortium to make these requests and seek comment on this proposal.¹⁸² What other entities, if any, should we sanction to make these requests? How should we choose entities to sanction? What costs would voice service providers likely incur in order to comply with this requirement? Are there steps we could take to reduce these compliance costs? We further seek comment on any other issues we should consider regarding this proposal.

97. *Mitigating Bad Traffic.* We propose to require all voice service providers to take effective steps to mitigate bad traffic when notified of that traffic by the Commission. It is understandable that a voice service provider may not be aware initially that particular traffic is illegal.

¹⁸⁰ *Id.* (codified at 47 U.S.C. § 227(j)(1)(B)).

¹⁸¹ Under this proposal, failure to meet any one of these three criteria would constitute an unjust and unreasonable practice under section 201(b).

¹⁸² *Id.* § 13(d).

Once they have actual notice that the traffic is illegal, however, we see no reason that the voice service provider should not take action to mitigate that traffic.

98. We seek comment on this proposal. Should we require voice service providers to take particular steps to mitigate bad traffic, or should we leave the steps up to the voice service provider? Should we limit the requirement to notification from one of the mentioned entities, or should the list be broader? Should we define “actual notice” for this proposed rule, and if so, how? What costs would voice service providers likely incur in order to comply with this requirement? Are there steps we could take to reduce these compliance costs? We further seek comment on any additional issues we should consider.

99. We recognize that compliance with this requirement may lead to the blocking of calls. We seek comment on this issue. Is it appropriate to require voice service providers that are common carriers to block calls in this context? Are there ways that a voice service provider could mitigate bad traffic that do not involve blocking? If so, how effective are these methods?

100. *Effective Measures to Prevent Illegal Calls from New Customers.* We propose to require voice service providers to take affirmative, effective measures to prevent new and renewing customers from using their networks to originate illegal calls. The most effective way of preventing illegal calls from reaching American consumers is by ensuring that those calls never originate on or enter the network. Only originating voice service providers and gateway providers can prevent this from happening.

101. We seek comment on this proposal. What steps might a voice service provider take to ensure its new and renewing customers do not originate bad traffic? Should we require all voice service providers to take specific steps, or should we permit each voice service provider to develop their own plan? We seek comment on how to define “effective measures” so that we ensure voice service providers are responsible for doing due diligence on their high-volume customers, while recognizing that no methods will be perfect. What costs would voice service providers likely incur in order to comply with this requirement? Are there steps we could take to reduce these compliance costs? We further seek comment on any other issues related to effective measures to prevent illegal calls from new and renewing customers that we should consider.

102. *Legal Authority.* We seek comment on our legal authority to require voice service providers to meet these standards. Section 201(b) specifically states that any “charge, practice, classification, or regulation that is unjust and unreasonable is declared unlawful.”¹⁸³ It also authorizes the Commission to “prescribe such rules and regulations as may be necessary in the public interest to carry out” this provision of the Act.¹⁸⁴ We tentatively conclude that section 201(b) provides us with sufficient authority to require common carriers to meet these standards and seek comment on this conclusion. We further specifically seek comment on our authority to require non-carrier voice service providers to meet these standards. Should we exercise our ancillary authority under section 4(i) to require all voice service providers to comply with the rules we propose?¹⁸⁵ Would the exercise of ancillary authority be appropriate in this case? Are there any other sources of authority we can rely upon to impose these requirements on all voice service providers? For example, would our Truth in Caller ID authority provide sufficient basis to require voice service providers to respond to traceback requests?¹⁸⁶

¹⁸³ 47 U.S.C. § 201(b).

¹⁸⁴ *Id.*

¹⁸⁵ 47 U.S.C. § 154(i).

¹⁸⁶ *Id.* § 227(e).

E. Blocked Calls Lists

103. In the case of over-blocking, consumers can achieve redress either through opting out or by working with their terminating voice service provider to ensure that wanted calls are not blocked in the future. Absent a list of blocked calls, however, a consumer may not know that they are missing calls they would prefer to receive. The TRACED Act directs the Commission to ensure consumers are provided with “transparency and effective redress options” for call-blocking services provided on either an opt-out or opt-in basis.¹⁸⁷

104. We propose to require terminating voice service providers to provide a list of individually blocked calls that were placed to a particular number at the request of the subscriber to that number. We further propose to require that terminating voice service providers offer this service at no additional charge.¹⁸⁸ We seek comment on this proposal. Would such a list be valuable to consumers? What information should be included on such a list? What are the technical challenges of maintaining and offering this list? Are there any challenges particular to smaller or TDM-based voice service providers? Are there other means through which we could provide transparency and effective redress to consumers? Should we require that the list cover a minimum or maximum time period? Should the list be limited to only calls blocked on an opt-out or opt-in basis?¹⁸⁹ Are there reasons to require that calls blocked without consumer consent be on the list?¹⁹⁰ What costs would terminating voice service providers incur in order to comply with this requirement? Are there any other issues we should consider?

105. *Legal Authority.* We tentatively conclude that section 10(b) of the TRACED Act, along with sections 201(b) and 202(a) of the Communications Act, provide us with authority to require terminating voice service providers to provide such a list to their customers. We seek comment on this conclusion. Are there other sources of authority we should consider?

VI. PROCEDURAL MATTERS

106. *Ex Parte Rules.* This proceeding shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.¹⁹¹ 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

¹⁸⁷ TRACED Act § 10(b) (text codified at 47 U.S.C. § 227(j)(1)(A) and (B)).

¹⁸⁸ TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)(B)).

¹⁸⁹ Section 10(b) of the TRACED Act deals specifically with opt-out and opt-in blocking. TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)(B)).

¹⁹⁰ This is particularly relevant where the caller is not in a position to remedy erroneous blocking, such as in the inmate calling context. See *Securus* July 24, 2019 Comments at 7 (explaining that inmates, in comparison to other callers, are disadvantaged in addressing erroneous blocking because of the nature of inmate calling services which, among other things, generally only permit inmates to call pre-approved numbers).

¹⁹¹ 47 CFR § 1.1200 *et seq.*

staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) 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.

107. Filing Requirements: Comments and Replies. 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).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.
 - Filings can be sent by hand or messenger delivery, 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 445 12th Street, SW, Washington DC 20554.
 - 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>.

108. Comments Containing Proprietary Information. Commenters that file what they consider to be proprietary information may request confidential treatment pursuant to section 0.459 of the Commission's rules. Commenters should file both their original comments for which they request confidentiality and redacted comments, along with their request for confidential treatment. Commenters should not file proprietary information electronically. See *Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, Report and Order, 13 FCC Rcd 24816 (1998), Order on Reconsideration, 14 FCC Rcd 20128 (1999). Even if the Commission grants confidential treatment, information that does not fall within a specific exemption pursuant to the Freedom of Information Act (FOIA) must be publicly disclosed pursuant to an appropriate request. See 47 CFR § 0.461; 5 U.S.C. § 552. We note that the Commission may grant requests for confidential treatment either conditionally or unconditionally. As such, we note that the Commission has the discretion to release information on public interest grounds that falls within the scope of a FOIA exemption.

109. 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).

110. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street, S.W., CY-A257, Washington, D.C., 20554. These documents will also be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

111. *Additional Information.* For additional information on this proceeding, contact Jerusha Burnett, Jerusha.Burnett@fcc.gov or (202) 418-0526, of the Consumer and Governmental Affairs Bureau, Consumer Policy Division.

112. *Final Regulatory Flexibility Act Analysis.* Pursuant to the Regulatory Flexibility Act of 1980 (RFA),¹⁹² as amended, the Commission's Final Regulatory Flexibility Analysis in this Report and Order is attached as Appendix D.

113. *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 proposed in this *Fourth Further Notice of Proposed Rulemaking*. The IRFA is set forth in Appendix E. We request written public comment on this IRFA. Comments must be filed by the deadlines for comments on the *Fourth Further Notice of Proposed Rulemaking* 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 Fourth Further Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).¹⁹³

114. *Congressional Review Act.* The Commission will submit this draft Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for concurrence as to whether this rule is "major" or "non-major" under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

115. *Paperwork Reduction Act.* This Fourth Further Notice of Proposed Rulemaking contains proposed new or modified 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 therein, 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.¹⁹⁴

VII. ORDERING CLAUSES

116. **IT IS ORDERED** that, pursuant to sections 201, 202, 227, 227b, 251(e), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 201, 202, 227, 251(e), 403, and section 7 of the Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, , Pub. L. No. 116-105, 133 Stat.

¹⁹² See 5 U.S.C. § 603.

¹⁹³ See 5 U.S.C. § 603(a).

¹⁹⁴ 44 U.S.C. § 3506(c)(4).

3274, this *Third Report and Order and Order on Reconsideration* **IS ADOPTED**.

117. **IT IS FURTHER ORDERED** that, pursuant to sections 154(i), 201, 202, 227, 251(e), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 202, 227, 251(e), 403, and section 7 of the Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, Pub. L. No. 116-105, 133 Stat. 3274, this *Fourth Further Notice of Proposed Rulemaking* **IS ADOPTED**.

118. **IT IS FURTHER ORDERED** that the rule amendments set forth in Appendix A **SHALL BE EFFECTIVE** 30 days after their publication in the Federal Register.

119. **IT IS FURTHER ORDERED** that pursuant to applicable procedures set forth in Section 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments on the *Fourth Further Notice of Proposed Rulemaking* on or before 30 days after publication in the Federal Register, and reply comments on or before 60 days after publication in the Federal Register.

120. **IT IS FURTHER ORDERED** that the Petition for Clarification or Reconsideration filed by the Alarm Industry Communications Committee in CG Docket No. 17-59 on July 8, 2019, **IS DENIED** or **DISMISSED AS MOOT** to the extent indicated herein.

121. **IT IS FURTHER ORDERED** that the Petition for Clarification or Reconsideration filed by the American Dental Association in CG Docket No. 17-59 on July 10, 2019, **IS DENIED** to the extent indicated herein.

122. **IT IS FURTHER ORDERED** that this *Order on Reconsideration* **SHALL BE EFFECTIVE** upon release.

123. **IT IS FURTHER ORDERED** that the Commission's Consumer & Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this *Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking* to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. § 801(a)(1)(A).

124. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this *Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking*, including the Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Final Rules

The Federal Communications Commission amends Part 64 of Title 47 of the Code of Federal Regulations as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

Subpart L—Restrictions on Telemarketing, Telephone Solicitation, and Facsimile Advertising

1. Amend § 64.1200(f) by inserting new paragraph (17) and amend § 64.1200(k) by redesignating paragraph (4) as (7), revising and redesignating paragraph (3) as (5), and adding paragraphs (3), (4), (6), and (8) to read:

§ 64.1200 Delivery restrictions

(f)

(17) The term *effectively mitigate* means identifying the source of the traffic and preventing that source from continuing to originate unusually high volumes of traffic of the same or similar nature.

(k) Voice service providers may block calls so that they do not reach a called party as follows:

(3) A terminating provider may block a voice call without liability under the Communications Act or the Commission's rules where:

(i) Calls are blocked based on the use of reasonable analytics designed to identify unwanted calls;

(ii) Those analytics include consideration of caller ID authentication information where available;

(iii) A consumer may opt out of blocking and is provided with sufficient information to make an informed decision;

(iv) All analytics are applied in a non-discriminatory, competitively neutral manner; and

(vi) Blocking services are provided with no additional line-item charge to consumers.

(4) A provider may block voice calls or cease to accept traffic from an originating or intermediate provider without liability under the Communications Act or the Commission's rules where the originating or intermediate provider, when notified by the Commission, fails to effectively mitigate illegal traffic within 48 hours or fails to implement effective measures to prevent new and renewing customers from

using its network to originate illegal calls. Prior to initiating blocking, the provider shall provide the Commission with notice and a brief summary of the basis for its determination that the originating or intermediate provider meets one or more of these two conditions for blocking.

(5) A provider may not block a voice call under paragraph (k)(1) through (4) of this section if the call is an emergency call placed to 911.

(6) A provider may not block calls under paragraph k(1) through (4) of this section unless that provider makes all reasonable efforts to ensure that calls from public safety answering points and government emergency numbers are not blocked.

(7) For purposes of this subsection, a provider may rely on Caller ID information to determine the purported originating number without regard to whether the call in fact originated from that number.

(8) Any terminating provider blocking pursuant to this subsection must provide a single point of contact, readily available on the terminating provider's public-facing website, for handling call blocking error complaints and must resolve disputes within a reasonable time. When a caller makes a credible claim of erroneous blocking and the terminating provider determines that the calls should not have been blocked, the terminating provider must promptly cease blocking calls from that number unless circumstances change.

APPENDIX B**Draft Proposed Rules for Public Comment**

The Federal Communications Commission proposes to amend Part 64 of Title 47 of the Code of Federal Regulations as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS**Subpart L—Restrictions on Telemarketing, Telephone Solicitation, and Facsimile Advertising**

1. Amend § 64.1200(k) by adding paragraph (9) to read:

(9) Any terminating voice service provider that blocks calls on an opt-out or opt-in basis must provide, at the request of the subscriber to a number, a list of calls to the number that were blocked.

2. Amend § 64.1200 by adding paragraph (n) to read:

§ 64.1200 Delivery restrictions

(n) Voice service providers must:

(1) Respond to all traceback requests from the Commission, law enforcement, or the Traceback Consortium;

(2) Take effective steps to mitigate illegal traffic when the originating or intermediate provider receives actual notice of that traffic by the Commission; and

(3) Take affirmative, effective measures to prevent new and renewing customers from using their network to originate illegal calls.

APPENDIX C
Comments Filed

<u>Commenter</u>	<u>Abbreviation</u>
AARP*	AARP
American Bankers Association, American Association of Healthcare Administrative Management, American Financial Services Association, Consumer Bankers Association, Credit Union National Association, Edison Electric Institute, Independent Community Bankers of America, Mortgage Bankers Association, National Association of Federally-Insured Credit Unions, National Retail Federation	ABA et al.
American Financial Services Association	AFSA
ACA Connects – America’s Communications Association*	ACA Connects
ACA International	ACA International
ACT – The App Association	ACT
ADT Security Services	ADT
Alarm Industry Communications Committee*	AICC
American Association of Healthcare Administrative Management	AAHAM
AT&T*	AT&T
Boulder Regional Emergency Telephone Service Authority	BRETSA
Capio Partners LLC	Capio
Cloud Communications Alliance*	CCA
Comcast Corporation	Comcast
Competitive Carriers Association	Competitive Carriers
Consumer Reports, National Consumer Law Center, Consumer Action, Consumer Federation of America, National Association of Consumer Advocates, Public Knowledge*	Consumer Reports et al.
Consumer Bankers Association	CBA
Credit Union National Association*	CUNA
CTIA*	CTIA
Electronic Transactions Association	ETA
Encore Capital Group	Encore
Fifty-One (51) State Attorneys General	Attorneys General
First Orion Corp.	First Orion
Heartland Credit Union Association	HCUA
HMS	HMS
INCOMPAS*	INCOMPAS
Inmate Calling Solutions	Inmate Calling
Irene Hoheusle	Hoheusle
ITTA – The Voice of America’s Broadband Providers	ITTA
Larimer Emergency Telephone Authority	Larimer
Massachusetts Department of Telecommunications and Cable	MDTC
Mississippi Public Service Commissioner Brandon Presley	Presley
NCTA – The Internet & Television Association*	NCTA
Neustar	Neustar

Noble Systems Corporation*	Noble
NTCA – The Rural Broadband Association	NTCA
Numeracle	Numeracle
Ohio Credit Union League	OCUL
PRA Group	PRA
Professional Association for Consumer Engagement	PACE
Professional Credit Service	PCS
Quicken Loans	Quicken
R1 RCM	R1
RingCentral*	RingCentral
Securus Technologies*	Securus
Sirius XM Radio*	Sirius XM
Smithville Telephone Company	Smithville
SpoofCard	SpoofCard
Sprint	Sprint
Steve Chitwood	Chitwood
TCN	TCN
Teliix	Teliix
Telnyx*	Telnyx
TelTech Systems	TelTech
T-Mobile USA*	T-Mobile
TracFone Wireless	TracFone
Transaction Network Services	TNS
TransNexus	TransNexus
Twilio	Twilio
USTelecom*	USTelecom
Verizon*	Verizon
Voice on the Net Coalition	VON
West Telecom Services	West
Wolters Kluwer Health	Wolters Kluwer
WTA – Advocates for Rural Broadband*	WTA

* filing both comments and reply comment (bold - reply comments only).

APPENDIX D

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Declaratory Ruling and Further Notice*.² The Commission sought written public comment on the proposals in the *NPRM*, including comment on the IRFA. The comments received are discussed below. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.³

A. Need for, and Objectives of, the Order

2. This *Report and Order* takes important steps in the fight against illegal robocalls by enabling terminating voice service providers to block certain calls before they reach consumers' phones while also requiring certain protections for lawful calls.⁴ In 2019, we received 191,015 complaints about unwanted calls. Stopping illegal calls is the Commission's top consumer protection priority. The rules we adopt today outline two safe harbors⁵ for terminating voice service providers that block calls in these circumstances. First, the *Report and Order* establishes a safe harbor for terminating voice service providers that block calls on a default, opt-out, basis based on reasonable analytics so long as those analytics include caller ID authentication information and the customer is given sufficient information to make an informed choice.⁶ Second, it establishes a safe harbor for voice service providers that block and then cease accepting all traffic from an upstream voice service provider that, when notified that it is carrying bad traffic by the Commission, fails to effectively mitigate such traffic or fails to implement effective measures to prevent new and renewing customers from using its network to originate illegal calls.⁷ This *Report and Order* also adopts rules to ensure that callers and other voice service providers can resolve potential erroneous blocking⁸ and to require all voice service providers to make all reasonable efforts to ensure that critical calls complete.⁹

3. *Reasonable Analytics*. The *Report and Order* provides a safe harbor from liability under the Communication Act and the Commission's rules for voice service providers that block calls based on reasonable analytics that must include Caller ID authentication information, so long as consumers are

¹ 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

² *Advanced Methods to Target and Eliminate Unlawful Robocalls, Call Authentication Trust Anchor*, CG Docket No. 17-59, WC Docket No. 17-97, Declaratory Ruling and Third Further Notice of Proposed Rulemaking, 34 FCC Rcd 4876 (2019) (*Declaratory Ruling and Further Notice*).

³ See 5 U.S.C. § 604.

⁴ *Report and Order* at paras. 18-69.

⁵ These safe harbors provide protection from liability for blocking lawful calls under the Communications Act or the Commission's rules for voice service providers that implement blocking programs that meet certain criteria.

⁶ *Report and Order* at paras. 25-34.

⁷ *Report and Order* at paras. 35-45.

⁸ *Id.* at paras. 54-56.

⁹ *Id.* at paras. 52-53.

given a meaningful opportunity to opt out.¹⁰ This safe harbor builds on the blocking we made clear was permitted under the *Declaratory Ruling and Further Notice* and adds the requirement that voice service providers incorporate Caller ID authentication information into their analytics programs.¹¹

4. *Bad Actor Providers.* Additionally, the *Report and Order* establishes a safe harbor for terminating voice service providers that block calls from upstream voice service providers that, when notified that it is carrying bad traffic by the Commission, fails to effectively mitigate such traffic or fails to implement effective measures to prevent new and renewing customers from using its network to originate illegal calls.¹² This safe harbor incentivizes bad-actor providers to better police their networks by raising the cost of passing bad traffic.

5. *Other Issues.* The *Report and Order* clarifies that any terminating voice service provider that blocks calls must designate a single point of contact for callers to report blocking errors at no charge.¹³ It further makes clear that blocking providers must investigate and resolve these blocking disputes in a reasonable amount of time that is consistent with industry best practices.¹⁴ To avoid abuse, the *Report and Order* declines to mandate a Critical Calls List at this time.¹⁵ It does, however, make clear that the Commission expects all voice service providers will take all possible steps to ensure that calls from Public Safety Answering Points (PSAPs) and government outbound emergency numbers are not blocked.¹⁶ Finally, it makes clear that calls to 911 should never be blocked unless the voice service provider knows without a doubt that the calls are unlawful.¹⁷

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

6. In the *Declaratory Ruling and Further Notice*, we solicited comments on how to minimize the economic impact of the new rules on small business. We received four comments either directly referencing the IRFA or addressing small business concerns.¹⁸ Two of these comments focused on concerns about the ability of small businesses to implement SHAKEN/STIR and how this would impact the safe harbors proposed in the *Further Notice*.¹⁹ The remaining two comments focused on small business challenge mechanism issues.²⁰

7. *SHAKEN/STIR.* Both ITTA and Spoofcard raised concerns about safe harbors contingent on SHAKEN/STIR, noting that many small voice service providers have TDM networks and therefore

¹⁰ *Id.* at paras. 25-34.

¹¹ *Id.*

¹² *Id.* at para. 35-45.

¹³ *Id.* at paras. 54-56.

¹⁴ *Id.*

¹⁵ *Id.* at paras. 57.

¹⁶ *Id.* at para. 52-53.

¹⁷ *Id.*

¹⁸ Robert Ridgeway July 23, 2019 Comments at 4 (Capio); Credit Union National Association July 24, 2019 Comments at 9 (CUNA); ITTA – The Voice of America’s Broadband Providers Aug. 23, 2019 Reply Comments at 13-14 (ITTA); Spoofcard LLC Aug. 22, 2019 Reply Comments at 8-9 (Spoofcard).

¹⁹ ITTA Aug. 23, 2019 Reply Comments at 13-14; Spoofcard Aug. 23, 2019 Comments at 8-9.

²⁰ Capio July 23, 2019 Comments at 4; CUNA July 24, 2019 Comments at 9.

will not be able to implement SHAKEN/STIR quickly.²¹ ITTA instead argues for a safe harbor for blocking based on reasonable analytics,²² while Spoofcard simply argues against blocking based solely on SHAKEN/STIR.²³ We recognize that some small voice service providers will not be able to implement SHAKEN/STIR quickly. The first safe harbor we adopt in the *Report and Order* does not prevent these voice service providers from blocking pursuant to the *Declaratory Ruling*.²⁴ Additionally, as other effective Caller ID authentication technologies are developed, they may also satisfy the requirements of the first safe harbor.²⁵ Finally, neither safe harbor we adopt today permits blocking solely on SHAKEN/STIR.²⁶

8. *Challenge Mechanisms.* Capiro highlighted the importance of a robust challenge mechanism for small businesses.²⁷ Both Capiro and CUNA called for this mechanism to be offered free of charge, with CUNA noting that this is particularly important for small businesses such as credit unions.²⁸ In the *Report and Order*, we require terminating voice service providers to designate a single point of contact for resolving blocking disputes and make contact information clear and conspicuous on their public-facing websites.²⁹ We further require terminating voice service providers to resolve disputes in a reasonable amount of time, noting that what is reasonable may vary on a case-by-case basis.³⁰ Finally, we require that this be offered at no charge to callers.³¹

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

9. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments.³² The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

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

10. 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 rules adopted herein.³³ The RFA generally

²¹ ITTA Aug. 23, 2019 Reply Comments at 13-14; Spoofcard Aug. 22, 2019 Reply Comments at 8-9.

²² ITTA Aug. 23, 2019 Reply Comments at 13-14.

²³ Spoofcard Aug. 22, 2019 Reply Comments at 8-9.

²⁴ *Report and Order* at paras. 25-34.

²⁵ *Id.* at para. 34.

²⁶ *Id.* at para. 25-45.

²⁷ Capiro July 23, 2019 Comments at 4.

²⁸ Capiro July 23, 2019 Comments at 3; CUNA July 24, 2019 Comments at 9.

²⁹ *Report and Order* at paras. 62-63.

³⁰ *Id.*

³¹ *Id.*

³² 5 U.S.C. § 604(a)(3).

³³ *See* 5 U.S.C. § 603(b)(3).

defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”³⁴ In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.³⁵ 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.³⁶

1. Wireline Carriers

11. *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.”³⁷ 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.³⁸ Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.³⁹ Thus, under this size standard, the majority of firms in this industry can be considered small.

12. *Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for local exchange services. The closest applicable size standard under SBA rules is for the category 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

³⁴ See 5 U.S.C. § 601(6).

³⁵ See 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.”

³⁶ See 15 U.S.C. § 632.

³⁷ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

³⁸ 13 CFR § 121.201, NAICS code 517311.

³⁹ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Etablissements%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

services using facilities and infrastructure that they operate are included in this industry.”⁴⁰ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴¹ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.⁴² Consequently, the Commission estimates that most providers of local exchange service are small businesses.

13. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable size standard under SBA rules is for the category 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.”⁴³ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁴ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.⁴⁵ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

14. *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 size standard under SBA rules is for the category 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

⁴⁰ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁴¹ 13 CFR § 121.201, NAICS code 517311.

⁴² 2012 U.S. Economic Census, NAICs Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Etablshments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

⁴³ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁴⁴ 13 CFR § 121.201, NAICS code 517311.

⁴⁵ 2012 U.S. Economic Census, NAICs Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Etablshments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”⁴⁶ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁷ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.⁴⁸ Consequently, 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.

15. 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.”⁴⁹ 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.⁵⁰ 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.

16. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category 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.”⁵¹ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵² Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000

⁴⁶ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁴⁷ 13 CFR § 121.201, NAICS code 517311.

⁴⁸ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S.&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

⁴⁹ 5 U.S.C. § 601(3).

⁵⁰ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (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).

⁵¹ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁵² 13 CFR § 121.201, NAICS code 517311.

employees.⁵³ Consequently, the Commission estimates that the majority of interexchange carriers are small entities.

17. *Cable System Operators (Telecom Act Standard)*. The Communications Act 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 1 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.”⁵⁴ There are approximately 52,403,705 cable video subscribers in the United States today.⁵⁵ Accordingly, an operator serving fewer than 524,037 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.⁵⁶ Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.⁵⁷ 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.⁵⁸ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, 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.

18. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to other toll carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for 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.”⁵⁹ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁰ Census data for 2012 show that there were 3,117

⁵³ 2012 U.S. Economic Census, NAICs Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Etablshments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

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

⁵⁵ See SNL KAGAN at www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx.

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

⁵⁷ See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

⁵⁸ 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 section 76.901(f) of the Commission’s rules. See 47 CFR § 76.901(f).

⁵⁹ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁶⁰ 13 CFR § 121.201, NAICS code 517311.

firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.⁶¹ Thus, under this category and the associated small business size standard, the majority of other toll carriers can be considered small.

2. Wireless Carriers

19. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁶² Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁶³ For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees.⁶⁴ Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small 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) services.⁶⁵ Of this total, an estimated 261 have 1,500 or fewer employees.⁶⁶ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

20. *Satellite Telecommunications Providers*. The category of Satellite Telecommunications Providers “comprises establishments 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.”⁶⁷ This category has a small business size standard of \$35.0 million or less in average annual receipts, under SBA rules.⁶⁸ For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.⁶⁹ Of this total, 299 firms had annual receipts of under \$25 million.⁷⁰

⁶¹ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

⁶² U.S. Census Bureau, 2017 NAICS Definitions, “517312 Wireless Telecommunications Carriers (Except Satellite)”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁶³ 13 CFR § 121.201, NAICS code 517312 (2017 NAICS). The now-superseded CFR citation was 13 CFR § 121.201, NAICS code 517312 (referring to the 2012 NAICS).

⁶⁴ 2012 U.S. Economic Census, NAICS Code 517312, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Firms%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&n=517312>.

⁶⁵ *Trends in Telephone Service*, tbl. 5.3.

⁶⁶ *Id.*

⁶⁷ U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012>.

⁶⁸ 13 CFR § 121.201, NAICS Code 517410.

⁶⁹ U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410.

⁷⁰ *Id.*

Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

21. *All Other Telecommunications.* All Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. 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. Establishments providing Internet services or [V]oice over Internet [P]rotocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.”⁷¹ The SBA has developed a small business size standard for the category of All Other Telecommunications.⁷² Under that size standard, such a business is small if it has \$35.0 million in annual receipts.⁷³ For this category, Census Bureau data for 2012 show that there were a total of 1,442 firms that operated for the entire year.⁷⁴ Of this total, 1,400 had annual receipts below \$25 million per year.⁷⁵ Consequently, we estimate that the majority of all other telecommunications firms are small entities.

3. Resellers

22. *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. Mobile virtual network operators (MVNOs) are included in this industry.⁷⁶ The SBA has developed a small business size standard for the category of Telecommunications Resellers.⁷⁷ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁷⁸ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, 1,341 operated with fewer than 1,000 employees.⁷⁹ 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

⁷¹ .S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁷² 13 CFR § 121.201, NAICS code 517919.

⁷³ *Id.*

⁷⁴ 2012 U.S. Economic Census, NAICs Code 517919 at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&t=Employment%20Size&text=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Firms%20for%20the%20U.S&n=517919&hidePreview=false&vintage=2012>.

⁷⁵ *Id.*

⁷⁶ <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁷⁷ 13 CFR § 121.201, NAICS code 517911.

⁷⁸ *Id.*

⁷⁹ 2012 U.S. Economic Census, NAICs Code 517911, at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012&text=Employment%20size&n=517911&cid=EMP>.

reported that they are engaged in the provision of toll resale services.⁸⁰ Of this total, an estimated 857 have 1,500 or fewer employees.⁸¹ Consequently, the Commission estimates that the majority of toll resellers are small entities.

23. *Local Resellers.* The SBA has developed a small business size standard for the category of 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.⁸² Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸³ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.⁸⁴ Thus, under this category and the associated small business size standard, the majority of these local resellers can be considered small entities.

24. *Prepaid Calling Card Providers.* The SBA has developed a small business size standard for the category of 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. Mobile virtual network operators (MVNOs) are included in this industry.⁸⁵ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁸⁶ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.⁸⁷ Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

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

25. This *Report and Order* makes clear that voice service providers may block calls in certain circumstances and provides safe harbors for that blocking. The *Report and Order* also adopts certain protections for lawful callers. These changes affect small and large companies equally and apply equally to all the classes of regulated entities identified above.

26. *Reporting and Recordkeeping Requirements.* The *Report and Order* establishes blocking

⁸⁰ *Trends in Telephone Service*, at tbl. 5.3.

⁸¹ *Id.*

⁸² <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁸³ 13 CFR § 121.201, NAICS code 517911.

⁸⁴ 2012 U.S. Economic Census, NAICS Code 517911, at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012&text=Employment%20size&n=517911&cid=EMP>.

⁸⁵ <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁸⁶ 13 CFR § 121.201, NAICS code 517911.

⁸⁷ 2012 U.S. Economic Census, NAICS Code 517911, at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012&text=Employment%20size&n=517911&cid=EMP>.

safe harbors that will require terminating providers that choose to block to maintain certain records to ensure that their blocking is in compliance with the safe harbor. The specific records that a terminating provider would need to retain will depend on the particular safe harbor the terminating provider is relying on as well as their specific blocking program. Terminating providers that choose to block calls based on reasonable analytics including caller ID authentication information will need to maintain records on calls blocked, as well as opt-out decisions made by consumers. These records are necessary to ensure that opt-out requests are honored and to aid in resolving blocking disputes. Terminating providers that choose to block all calls from a bad-actor upstream provider will need to retain information relevant to that decision to ensure that all requirements were met prior to blocking and to help respond to blocking disputes. Originating, intermediate, and terminating providers will also need to communicate with other providers regarding traceback, illegal traffic, and measures to prevent new customers from originating illegal traffic.

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

27. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its 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 or reporting requirements under the rule for 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 small entities.⁸⁸

28. The Commission considered feedback from the *Declaratory Ruling and Further Notice* in crafting the final order. We evaluated the comments with the goal of removing regulatory roadblocks and giving industry the flexibility to block calls while still protecting the interests of lawful callers. For example, the rules we adopt today are permissive rather than mandatory, allowing small businesses to determine whether, and what type of, blocking is the correct approach for their network. A terminating provider may choose to block based on reasonable analytics, including caller ID authentication information, and benefit from that safe harbor. Should a terminating provider do so, they have flexibility to design their own reasonable analytics program and make that program either opt out or opt in. Alternatively or in addition to that blocking, a terminating provider may choose to block all calls from an originating or intermediate provider that fails to meet the criteria we lay out in the bad-actor provider safe harbor. We recognize small business concerns regarding the difficulty of deploying SHAKEN/STIR.⁸⁹ Small businesses that cannot rapidly deploy SHAKEN/STIR have alternative blocking options, such as those from the *Declaratory Ruling and Further Notice*⁹⁰ to ensure that they are not left behind. We further took the concerns of small business into consideration in establishing the requirements to make challenging erroneous blocking simpler and at no cost to the caller.⁹¹

29. The Commission does not see a need to establish a special timetable for small entities to reach compliance with the modification to the rules. No small business has asked for a delay in implementing the rules. Small businesses may avoid compliance costs entirely by declining to block robocalls, or may delay implementation of call blocking indefinitely to allow for more time to come into

⁸⁸ 5 U.S.C. § 603.

⁸⁹ ITTA Aug. 23, 2019 Reply Comments at 13-14; Spoofcard Aug. 23, 2019 Comments at 8-9.

⁹⁰ The *Declaratory Ruling and Further Notice* makes clear that voice service providers may block calls based on reasonable analytics designed to identify unwanted calls on an opt-out basis, as well as that they may offer, on an opt-in basis, blocking services that block all calls not on a customer's individual white list. *Declaratory Ruling and Further Notice*, 34 FCC Rcd 4884-91, paras. 26-46.

⁹¹ Capio July 23, 2019 Comments at 3; CUNA July 24, 2019 Comments at 9.

compliance with the rules. Similarly, there are no design standards or performance standards to consider in this rulemaking.

G. Report to Congress

The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.⁹² In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the *Report and Order* (or summaries thereof) will also be published in the Federal Register.⁹³

⁹² 5 U.S.C. § 801(a)(1)(A).

⁹³ *See id.* § 604(b).

APPENDIX E

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 a substantial number of small entities by the policies and rules proposed in this *Fourth Further Notice of Proposed Rulemaking* (FNPRM). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the FNPRM provided on the first page of this document. The Commission will send a copy of the FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.² In addition, the FNPRM and IRFA (or summaries thereof) will be published in the Federal Register.³

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

2. The FNPRM continues a process to prevent unwanted calls from reaching consumers while also ensuring that wanted calls are protected. The FNPRM seeks comment on ways to implement certain provisions of the TRACED Act.⁴ The FNPRM proposes rules to make voice service providers responsible for the calls that originate on their network.⁵ The FNPRM further proposes to require terminating voice service providers that block calls to provide a list of calls blocked on an opt-in or opt-out basis to their customers on demand.⁶

3. The FNPRM proposes to declare particular practices by voice service providers unjust and unreasonable under section 201(b) of the Communications Act.⁷ First, the FNPRM proposes to affirmatively require all voice service providers to respond to traceback requests from the Commission, law enforcement, or the Traceback Consortium.⁸ Second, the FNPRM proposes to require all voice service providers to take effective steps to mitigate illegal traffic when notified of that traffic by the Commission.⁹ Third, the FNPRM proposes to require all voice service providers to take affirmative, effective measures to prevent new customers from using their network to originate illegal calls.¹⁰

B. Legal Basis

4. The proposed and anticipated rules are authorized under the TRACED Act, 154(i), 201, 202, 227, 251(e), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 202, 227, 251(e), 403, and section 7 of the Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, , Pub. L. No. 116-105, 133 Stat. 3274.

¹ 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 5 U.S.C. § 603(a).

³ *Id.*

⁴ *Fourth Further Notice of Proposed Rulemaking* at paras. 80-93.

⁵ *Id.* at paras. 94-102.

⁶ *Id.* at paras. 103-105.

⁷ *Id.* at paras. 94-102.

⁸ *Id.* at paras. 95-96.

⁹ *Id.* at paras. 97-99.

¹⁰ *Id.* at paras. 100-101.

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

5. 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 rules adopted herein.¹¹ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”¹² In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.¹³ 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.¹⁴

1. Wireline Carriers

6. *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.”¹⁵ 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.¹⁶ Census data for 2012 shows that there were 3,117 firms that operated that year. 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.

7. *Local Exchange Carriers (LECs).* Neither the Commission nor the SBA has developed a small business size standard specifically for Local Exchange Carriers. The closest applicable size standard under SBA rules is for the category 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

¹¹ See 5 U.S.C. § 603(b)(3).

¹² See 5 U.S.C. § 601(6).

¹³ See 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.”

¹⁴ See 15 U.S.C. § 632.

¹⁵ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

¹⁶ 13 CFR § 121.201, NAICS code 517311.

¹⁷ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S.&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

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.”¹⁸ Under that size standard, such a business is small if it has 1,500 or fewer employees.¹⁹ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.²⁰ Consequently, the Commission estimates that most providers of local exchange service are small businesses.

8. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable size standard under SBA rules is for the category 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.”²¹ Under that size standard, such a business is small if it has 1,500 or fewer employees.²² Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.²³ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

9. *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 size standard under SBA rules is for the category 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

¹⁸ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

¹⁹ 13 CFR § 121.201, NAICS code 517311.

²⁰ 2012 U.S. Economic Census, NAICs Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S.&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

²¹ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

²² 13 CFR § 121.201, NAICS code 517311.

²³ 2012 U.S. Economic Census, NAICs Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S.&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

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.”²⁴ Under that size standard, such a business is small if it has 1,500 or fewer employees.²⁵ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.²⁶ Consequently, 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.

10. 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.”²⁷ 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.²⁸ 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.

11. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category 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.”²⁹ Under that

²⁴ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

²⁵ 13 CFR § 121.201, NAICS code 517311.

²⁶ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S.&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

²⁷ 5 U.S.C. § 601(3).

²⁸ Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (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).

²⁹ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

size standard, such a business is small if it has 1,500 or fewer employees.³⁰ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.³¹ Consequently, the Commission estimates that the majority of interexchange carriers are small entities.

12. *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.”³² As of 2018, there were approximately 50,504,624 cable video subscribers in the United States.³³ 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.³⁴ Based on available data, we find that all but six incumbent cable operators are small entities under this size standard.³⁵ 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.³⁶ 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.

13. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for 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

³⁰ 13 CFR § 121.201, NAICS code 517311.

³¹ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Etablshments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

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

³³ 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/>.

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

³⁵ S&P Global Market Intelligence, *Top Cable MSOs as of 12/2018*, <https://platform.marketintelligence.spglobal.com/>. The six cable operators all had more than 505,046 basic cable subscribers.

³⁶ 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).

and infrastructure that they operate are included in this industry.”³⁷ Under that size standard, such a business is small if it has 1,500 or fewer employees.³⁸ Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.³⁹ Thus, under this category and the associated small business size standard, the majority of other toll carriers can be considered small.

2. Wireless Carriers

14. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.⁴⁰ Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.⁴¹ For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees.⁴² Thus, under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small 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) services.⁴³ Of this total, an estimated 261 have 1,500 or fewer employees.⁴⁴ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

15. *Satellite Telecommunications Providers*. The category of Satellite Telecommunications Providers “comprises establishments 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.”⁴⁵ This category has a small business size standard of \$35.0 million or less in average annual receipts, under SBA

³⁷ U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

³⁸ 13 CFR § 121.201, NAICS code 517311.

³⁹ 2012 U.S. Economic Census, NAICS Code 517311, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Establishments%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&mode=&n=517311>.

⁴⁰ U.S. Census Bureau, 2017 NAICS Definitions, “517312 Wireless Telecommunications Carriers (Except Satellite)”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁴¹ 13 CFR § 121.201, NAICS code 517312 (2017 NAICS). The now-superseded CFR citation was 13 CFR § 121.201, NAICS code 517312 (referring to the 2012 NAICS).

⁴² 2012 U.S. Economic Census, NAICS Code 517210, at <https://data.census.gov/cedsci/table?q=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Firms%20for%20the%20U.S&g=&table=EC1251SSSZ5&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&lastDisplayedRow=11&vintage=2012&n=517210>.

⁴³ *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*).

⁴⁴ *Id.*

⁴⁵ U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012>.

rules.⁴⁶ For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.⁴⁷ Of this total, 299 firms had annual receipts of under \$25 million.⁴⁸ Consequently, we estimate that the majority of satellite telecommunications firms are small entities.

16. *All Other Telecommunications.* All Other Telecommunications comprises, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. 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. Establishments providing Internet services or VoIP services via client-supplied telecommunications connections are also included in this industry.”⁴⁹ The SBA has developed a small business size standard for the category of All Other Telecommunications.⁵⁰ Under that size standard, such a business is small if it has \$35.0 million in annual receipts.⁵¹ For this category, Census Bureau data for 2012 show that there were a total of 1,442 firms that operated for the entire year.⁵² Of this total, 1,400 had annual receipts below \$25 million per year.⁵³ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities.

3. Resellers

17. *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. Mobile virtual network operators (MVNOs) are included in this industry.⁵⁴ The SBA has developed a small business size standard for the category of Telecommunications Resellers.⁵⁵ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁶ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, 1,341 operated with fewer than 1,000

⁴⁶ 13 CFR § 121.201, NAICS Code 517410.

⁴⁷ U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410.

⁴⁸ *Id.*

⁴⁹ U.S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

⁵⁰ 13 CFR § 121.201, NAICS code 517919.

⁵¹ *Id.*

⁵² 2012 U.S. Economic Census, NAICS Code 517919 at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&t=Employment%20Size&text=Estab%20%26%20Firm%20Size%3A%20Employment%20Size%20of%20Firms%20for%20the%20U.S&n=517919&hidePrevie=false&vintage=2012>.

⁵³ *Id.*

⁵⁴ <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁵⁵ 13 CFR § 121.201, NAICS code 517911.

⁵⁶ *Id.*

employees.⁵⁷ 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.⁵⁸ Of this total, an estimated 857 have 1,500 or fewer employees.⁵⁹ Consequently, the Commission estimates that the majority of toll resellers are small entities.

18. *Local Resellers.* The Commission has not developed a definition for Local Resellers. The closest NAICS Code Category is Telecommunications Resellers and therefore the associated definition and data for Telecommunications Resellers has been used 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. MVNOs are included in this industry.⁶⁰ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶¹ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.⁶² Thus, under this category and the associated small business size standard, the majority of these local resellers can be considered small entities.

19. *Prepaid Calling Card Providers.* The Commission has not developed a definition for Prepaid Calling Card Providers. The closest NAICS Code Category is Telecommunications Resellers and therefore the associated definition and data for Telecommunications Resellers has been used for Prepaid Calling Card Providers. 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.⁶³ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶⁴ Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.⁶⁵ Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance

⁵⁷ 2012 U.S. Economic Census, NAICS Code 517911, at <https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012&text=Employment%20size&n=517911&cid=EMP>.

⁵⁸ *Trends in Telephone Service*, at tbl. 5.3.

⁵⁹ *Id.*

⁶⁰ <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁶¹ 13 CFR § 121.201, NAICS code 517911.

⁶² U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517911.

⁶³ <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

⁶⁴ 13 CFR § 121.201, NAICS code 517911.

⁶⁵ U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517911.

Requirements

20. As indicated above, the FNPRM seeks comment on proposed rules to implement the TRACED Act, place affirmative duties on originating and intermediate providers to better police their network, and require terminating providers that block on an opt-in or -out basis to provide a list of blocked calls to subscribers on request. Until these requirements are defined in full, it is not possible to predict with certainty whether the costs of compliance will be proportional between small and large voice service providers. In the FNPRM, we seek to minimize the burden associated with reporting, recordkeeping, and other compliance requirements for the proposed rules, such as modifying software, developing procedures, and training staff.

21. First, under the proposed rules, we tentatively conclude that originating and intermediate providers will need to retain call information in order to respond to traceback requests. They will also need to communicate with other intermediate and terminating providers regarding traceback requests and mitigation of illegal traffic. Additionally, they will need to implement processes to prevent new customers from using their network to originate illegal calls.

22. Second, we tentatively conclude that terminating providers will need to keep records of calls blocked by destination telephone number. In addition, terminating providers will need to provide this information to subscribers on request.

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

23. 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 or reporting requirements under the rule for 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 small entities.⁶⁶

24. The Commission's proposed rules allow originating, intermediate, and terminating providers, including small businesses, flexibility in how to comply. Small businesses may reduce compliance costs through their implementation choices. For example, our proposed requirement that blocking voice service providers offer, on demand of the subscriber, a list of calls intended for a particular number, allows for this list to be provided in real-time or on demand, through whichever means is easiest for the terminating provider. In addition, we anticipate that the proposed rules will reduce costs by reducing the amount of illegal traffic on the network, which will both free up network capacity for wanted calls and reduce customer service costs from dealing with consumer complaints. However, we intend to craft rules that encourage all carriers, including small businesses, to block such calls; the FNPRM, therefore, seeks comment from small businesses on how to minimize costs associated with implementing the proposed rules. The FNPRM includes specific requests for comment from small businesses regarding how the proposed rules would affect them and what could be done to minimize any disproportionate impact on small businesses.

25. The Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the FNPRM and this IRFA, in reaching its final conclusions and taking action in this proceeding.

⁶⁶ 5 U.S.C. § 603(c).

- F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules**
26. None.