

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

In the Matter of
Advanced Methods to Target and Eliminate
Unlawful Robocalls
CG Docket No. 17-59

FOURTH REPORT AND ORDER

Adopted: December 29, 2020

Released: December 30, 2020

By the Commission:

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I. INTRODUCTION

1. The Commission has made combatting robocalls its top consumer protection priority and has worked diligently to ensure that consumers get the calls they want and avoid the calls they do not.

Act.<sup>1</sup> This new law directs the Commission to encourage voice service providers to block unwanted calls by giving them safe harbors for erroneous blocking based, in whole or in part, on caller ID authentication information and to make it easier to identify and fix erroneous blocking. Today, we continue our work on these fronts.

2. In this *Fourth Report and Order*, we require voice service providers to meet certain affirmative obligations and to better police their networks against illegal calls.<sup>2</sup> We next expand our existing call blocking safe harbor to cover network-based blocking of certain calls that are highly likely to be illegal. Third, we adopt rules to provide greater transparency and ensure that both callers and consumers can better identify blocked calls and ensure those that are wanted are un-blocked, consistent with section 10(b) of the TRACED Act. We also broaden our point-of-contact requirement to cover caller ID authentication concerns under section 4(c)(1)(C) of the TRACED Act.

## II. BACKGROUND

3. The Commission receives more complaints about unwanted calls than any other issue.<sup>3</sup> The Federal Trade Commission (FTC)<sup>4</sup> and non-governmental entities report similarly high numbers.<sup>5</sup> Unwanted calls can annoy, defraud, and lead to identity theft.<sup>6</sup> In recent years, the Commission has

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

<sup>2</sup> For purposes of this *Fourth Report and Order*, we use the definition of “voice service provider” that we adopted in the *Call Blocking Order and Further Notice*. Specifically, “voice service provider” means any entity originating, carrying, or terminating voice calls through time-division multiplexing (TDM), Voice over Internet Protocol (VoIP), or commercial mobile radio service (CMRS). *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking, 35 FCC Rcd 7614, 7615 n.3 (2020) (*Call Blocking Order and Further Notice*). As we explained there, this definition is consistent with our use of this term in previous call-blocking actions and existing call-blocking rules, but is more extensive than the definition of “voice service” in section 4 of the TRACED Act and the *First STIR/SHAKEN Order*; that definition excludes intermediate providers. See TRACED Act § 4(a)(2) (codified at 47 U.S.C. § 227b(a)(2)) (2019); *Call Authentication Trust Anchor, Implementation of TRACED Act Section 6(a)—Knowledge of Customers by Entities with Access to Numbering Resources*, WC Docket Nos. 17-97 and 20-67, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3241, 3300-01, Appx. A (2020) (*First STIR/SHAKEN Order*). We found that adopting the narrower definition used in the TRACED Act in this proceeding would create inconsistency with our existing call blocking 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.”

<sup>3</sup> We received 185,000 such complaints in 2017, 232,000 in 2018, 193,000 in 2019, and 154,000 in 2020. FCC, *Consumer Complaint Data Center*, <https://www.fcc.gov/consumer-help-center-data> (last visited Dec. 20, 2020). Multiple factors can affect these numbers, including outreach efforts and media coverage on how to avoid unwanted calls. Complaint numbers declined significantly during the first four months of the COVID-19 pandemic, reducing the total number of complaints the Commission received in 2020.

<sup>4</sup> In fiscal year 2019, the FTC received an average of 315,000 robocall complaints per month. 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-feeextension-act-2007-operation-national-do-not-p034305dncreport2019.pdf>.

<sup>5</sup> For example, Hiya reports that 54.6 billion unwanted robocalls were placed to U.S. mobile phones in 2019. Hiya, *State of the Call*, <https://hiya.com/state-of-the-call> (last visited Dec. 3, 2020). Similarly, YouMail estimates robocalls at 58.5 billion for 2019. YouMail, *Historical Robocalls By Time*, <https://robocallindex.com/history/time> (last visited Dec. 3, 2020).

<sup>6</sup> Significant scams include impersonation of Internal Revenue Service or Social Security Administration agents, among others. 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

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fought the flood of calls with aggressive enforcement and policy action. The latter has focused on two key areas: call blocking and caller ID authentication.

4. *Commission Enforcement Against Illegal Calls.* The Commission has taken aggressive enforcement action against those that make illegal robocalls. In January 2020, the Commission proposed a nearly \$13 million fine following a neighbor spoofing campaign of thousands of robocalls targeting specific consumers across several states.<sup>7</sup> In June 2020, the Commission proposed a \$225 million forfeiture for approximately one billion spoofed telemarketing robocalls.<sup>8</sup> These calls included prerecorded messages that falsely claimed affiliation with major health insurance providers.<sup>9</sup> In October 2020, the Commission fined a telemarketer \$37.5 million for making more than 2.3 million illegally spoofed telemarketing calls over 14 months.<sup>10</sup> The company manipulated the caller ID information so that calls appeared to come from local numbers, including numbers of Arizona consumers.<sup>11</sup> Most recently, in November 2020, the Commission imposed a nearly \$10 million fine against a telemarketer that spoofed a competitor's telephone number.<sup>12</sup>

5. Our Enforcement Bureau has also worked with the FTC to stop COVID-19 related robocall scams originating overseas.<sup>13</sup> On April 3, 2020, and May 20, 2020, they warned particular

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

<sup>7</sup> *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).

<sup>8</sup> *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).

<sup>9</sup> *Id.*

<sup>10</sup> *Affordable Enterprises of Arizona, LLC.*, Forfeiture Order, FCC 20-149 (Oct. 28, 2020).

<sup>11</sup> *Id.*

<sup>12</sup> *Kenneth Moser dba Marketing Support Systems*, Forfeiture Order, FCC 20-163 (Nov. 19, 2020).

<sup>13</sup> 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) (<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) (<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) (<https://docs.fcc.gov/public/attachments/DOC-363522A5.pdf>) (BLMarketing 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 Franklin Fawzi, CEO, Inetelepeer Cloud Communications LLC (May 20, 2020) (<https://docs.fcc.gov/public/attachments/DOC-364482A3.pdf>) (Inetelepeer 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) (<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, EO, RSCom LTD (May 20, 2020) (<https://docs.fcc.gov/public/attachments/DOC-364482A5.pdf>) (RSCom Letter).

gateway providers facilitating the scams that the Commission would authorize voice service providers to block all of their calls.<sup>14</sup> Each gateway provider confirmed that they had stopped the illegal traffic within 48 hours of getting the warning.<sup>15</sup>

6. *Policy Actions to Address Unwanted and Illegal Calls.* The Commission has recognized that enforcement alone does not stop unwanted and illegal calls. The Commission has taken multiple policy actions to address the problem, including authorizing call blocking by voice service providers.<sup>16</sup>

7. An integral part of the Commission's work is promoting rapid and broad deployment of caller ID authentication technology, which is essential to ending illegal spoofing. In 2017, the Commission sought broad comment on how to accelerate caller ID authentication development and implementation.<sup>17</sup> In May 2018, the North American Numbering Council (NANC) pushed for those companies that could to start signing and validating VoIP calls using STIR/SHAKEN within approximately one year.<sup>18</sup> The Commission, in 2019, further proposed to mandate STIR/SHAKEN if major voice service providers failed to implement the standard by the end of that year.<sup>19</sup>

8. Call blocking is distinct from caller ID authentication, but complementary. Together they enable voice service providers to block illegal calls before those calls reach consumers. The Commission has authorized and encouraged voice service providers to block in specific circumstances. The *2017 Call Blocking Order* made clear that voice service providers could block certain categories of calls that are highly likely to be illegal without consumer consent.<sup>20</sup> In 2019, the Commission enabled voice service providers to block calls based on reasonable analytics designed to identify unwanted calls without consumers having to take any action, as long as consumers can opt out of the blocking service.<sup>21</sup> It further made clear that voice service providers could block all calls not on a consumer's white list on an opt-in basis.<sup>22</sup>

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<sup>14</sup> Connexum Letter; SIPJoin Letter; BLM Marketing Letter; Itelepeer Letter; PTGi Letter; RSCom Letter.

<sup>15</sup> 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>.

<sup>16</sup> See, e.g., *Call Blocking Order and Further Notice*, 35 FCC Rcd 7614.

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

<sup>18</sup> Call Authentication Trust Anchor Working Grp., N. Am. Numbering Council, Report on Selection of Governance Authority and Timely Deployment of SHAKEN/STIR at 17 (2018), [http://nanc-chair.org/docs/mtg\\_docs/May\\_18\\_Call\\_Authentication\\_Trust\\_Anchor\\_NANC\\_Final\\_Report.pdf](http://nanc-chair.org/docs/mtg_docs/May_18_Call_Authentication_Trust_Anchor_NANC_Final_Report.pdf). 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. Protocols developed by the Secure Telephony Identify Revisited (STIR) working group of the Internet Engineering Task Force (IETF) work with the Signature-based Handling of Asserted information using toKENs (SHAKEN) implementation standards created by the Alliance for Telecommunications Industry Solutions (ATIS) and the SIP Forum.

<sup>19</sup> *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, 4898-02, paras. 71-82 (2019) (*Call Blocking Declaratory Ruling and Further Notice*).

<sup>20</sup> See, e.g., *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Report and Order and Further Notice of Proposed Rulemaking, 32 FCC Rcd 9706, 9709-25, paras. 9-56 (2017) (*2017 Call Blocking Order*).

<sup>21</sup> *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4884-90, paras. 26-42.

<sup>22</sup> *Id.* at 4890-91, paras. 43-46.

9. In December 2019, Congress gave us more tools for the fight. The TRACED Act directs the Commission to, among other things: mandate caller ID authentication technology; establish a consortium for private-led traceback efforts; consider steps to protect consumers from one-ring scams; establish safe harbors for the blocking of calls and associated protections; consider how to protect consumers from unwanted calls with unauthenticated numbers; and provide transparency and effective redress for both opt-in and opt-out call blocking.<sup>23</sup>

10. The Commission has already implemented much of the TRACED Act. In March 2020, it adopted the *First STIR/SHAKEN Order*, mandating that originating and terminating voice service providers implement STIR/SHAKEN in the IP portions of their networks by June 30, 2021.<sup>24</sup> In November 2020, the Commission adopted a Report and Order implementing the TRACED Act's directive to take additional actions to protect consumers from one-ring scams.<sup>25</sup> In July 2020, the Enforcement Bureau named USTelecom's Industry Traceback Group as the registered consortium to conduct private-led traceback efforts (Consortium).<sup>26</sup> The Commission has also established the Hospital Robocall Protection Group, announcing the members in July 2020.<sup>27</sup> Further, in September 2020, the Commission adopted the *Second STIR/SHAKEN Order* with new rules to further implement STIR/SHAKEN and protect consumers against malicious caller ID spoofing.<sup>28</sup>

11. Most relevant for this item's purposes, in July 2020, the Commission adopted the *Call Blocking Order and Further Notice*.<sup>29</sup> The *Order* enabled more voice service provider blocking by establishing two safe harbors from liability under the Communications Act and the Commission's rules for erroneous call blocking.<sup>30</sup> The first protects voice service providers that block calls they determine are unwanted based on reasonable analytics that take into consideration caller ID authentication information.<sup>31</sup> The second protects voice service providers that block calls from bad-actor upstream providers that fail to mitigate bad traffic within 48 hours or take effective steps to prevent new and renewing customers from originating illegal traffic after the Commission notifies them of that traffic.<sup>32</sup> The *Order* also requires voice service providers that block calls to provide a single point of contact for blocking disputes and take steps to ensure that critical calls are not blocked, consistent with sections 4(c)(1) and 10(b) of the TRACED Act.<sup>33</sup>

12. The *Further Notice* sought comment on a variety of measures aimed at reducing unwanted robocalls, as well as measures to further implement sections 4(c), 7, and 10(b) of the TRACED

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<sup>23</sup> See generally TRACED Act.

<sup>24</sup> See generally *First STIR/SHAKEN Order*.

<sup>25</sup> *Protecting Consumers from One-Ring Scams*, CG Docket No. 20-93, Report and Order, FCC 20-171 (Nov. 30, 2020).

<sup>26</sup> *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, 35 FCC Rcd 7886 (EB 2020).

<sup>27</sup> *FCC Announces the Membership and First Meeting of the Hospital Robocall Protection Group*, Public Notice, 35 FCC Rcd 6997 (2020).

<sup>28</sup> *Call Authentication Trust Anchor*, WC Docket No. 17-97, Second Report and Order, FCC 20-136 (Sept. 29, 2020) (*Second STIR/SHAKEN Order*).

<sup>29</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd 7614.

<sup>30</sup> *Id.* at 7623-31 paras. 20-45.

<sup>31</sup> *Id.* at 7625-27, paras. 25-34.

<sup>32</sup> *Id.* at 7627-31, paras. 35-45.

<sup>33</sup> *Id.* at 7633-36, paras. 51-59.

Act. First, it sought comment on further implementation of TRACED Act section 4(c), including: whether to expand the safe harbor to cover other types of call blocking or the misidentification of the level of trust for individual calls, and establishing a process to allow a calling party adversely affected by caller ID authentication information to verify the authenticity of its calls.<sup>34</sup> Second, it sought comment on additional steps to implement section 7 of the TRACED Act to protect subscribers from receiving unwanted calls or text messages from unauthenticated numbers.<sup>35</sup> Third, it asked about further implementation of section 10(b) to provide consumers and callers with transparency about blocked calls and effective redress for both opt-out and opt-in call blocking services.<sup>36</sup> Fourth, the *Further Notice* asked whether the Commission should require voice service providers to: respond to all traceback requests from the Commission, law enforcement, and the Consortium; take steps to effectively mitigate bad traffic when notified of such traffic by the Commission; and establish effective measures to prevent new and renewing customers from originating illegal calls.<sup>37</sup> Fifth, the Commission proposed extending our safe harbor to cover network-based blocking of calls based on reasonable analytics that incorporate caller ID information, without customers having to opt in or opt out, so long as the blocking is specifically designed to block calls that are highly likely to be illegal and is managed with human oversight and network monitoring to ensure it is working as intended.<sup>38</sup> Sixth, it asked about additional blocking transparency and redress requirements, including: immediate notification of blocking, how quickly a voice service provider must respond to a blocking dispute, and whether to extend redress requirements to cover mislabeled calls.<sup>39</sup> Finally, it sought comment on requiring terminating voice service providers that block on an opt-in or opt-out basis to provide, on request from the subscriber to a number and at no additional charge, a list of blocked calls that were intended for that number.<sup>40</sup>

### III. DISCUSSION

13. With this *Order* we take further steps to implement the TRACED Act and require voice service providers to better police their networks. We also respond to caller concerns that their calls may be blocked in error and ensure that consumers receive much-needed protection from harassing and even fraudulent calls. First, we require all voice service providers to take steps to stop illegal traffic on their networks and assist the Commission, law enforcement, and the Consortium in tracking down callers that make such calls. Second, we expand our safe harbor to include network-based blocking based on reasonable analytics that incorporate caller ID authentication information designed to identify calls that are highly likely to be illegal, if this blocking is managed with human oversight and network monitoring sufficient to ensure that blocking is working as intended. Third, consistent with the TRACED Act and our *Call Blocking Order and Further Notice*, we require that voice service providers that block calls

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<sup>34</sup> *Id.* at 7641-42, paras. 81-87 (seeking comment on implementing the TRACED Act's direction to the Commission to: (1) establish when a provider of voice service may block a call based in whole or in part on caller ID authentication information; (2) establish a safe harbor for such blocking or the unintended or inadvertent misidentification of the level of trust; (3) establish a process for a caller that is adversely affected by caller ID authentication information to verify the authenticity of its calls; (4) ensure that calls originating with a provider of voice service subject to a delay in compliance are not unreasonably blocked because they cannot be authenticated; and (5) consider certain factors in establishing such a safe harbor).

<sup>35</sup> *Id.* at 7642-43, paras. 88-90.

<sup>36</sup> *Id.* at 7643-44, paras. 91-94.

<sup>37</sup> *Id.* at 7644-46, paras. 95-103.

<sup>38</sup> *Id.* at 7646, paras. 104-06.

<sup>39</sup> *Id.* at 7646-47, paras. 107-09.

<sup>40</sup> *Id.* at 7647-48, paras. 110-12.

disclose such blocking, establish a dispute resolution process to correct erroneous blocking, and promptly resolve disputes. Finally, we address several other pending issues from the *Call Blocking Order and Further Notice*, including whether to adopt a further safe harbor for the misidentification of the level of trust for calls and additional methods to protect consumers from unwanted calls and text messages from unauthenticated numbers.

#### A. Affirmative Obligations for Voice Service Providers

14. The Commission and law enforcement play critical roles in combatting illegal robocalls, as evidenced by the FCC/FTC collaboration to stop COVID-19-related scam calls.<sup>41</sup> We thus want to ensure that both the Commission and law enforcement have information necessary to combat illegal robocalling. We now require every voice service provider to: (1) respond to traceback requests from the Commission, civil and criminal law enforcement, and the Consortium; (2) take steps to effectively mitigate illegal traffic when it receives actual written notice of such traffic from the Commission; and (3) implement affirmative, effective measures to prevent new and renewing customers from using its network to originate illegal calls. Originating and intermediate voice service providers are integral to stopping illegal calls, and the steps we take here further enlist them in the fight, along with terminating voice service providers.

##### 1. Respond to Traceback Requests

15. We adopt our proposal to require all voice service providers to respond to traceback requests from the Commission, civil and criminal law enforcement, and the Consortium.<sup>42</sup> And we make clear that we expect voice service providers to reply fully and timely. In September, we adopted a related but distinct requirement in the *Second STIR/SHAKEN Order*.<sup>43</sup> The requirement we adopt today does not replace that, but instead ensures that all voice service providers, regardless of their position in the network and their implementation of STIR/SHAKEN, are required to respond to traceback. Traceback is an essential tool for determining the source of illegal calls. It is useful to prevent further calls from the same source and to inform enforcement actions. This information is particularly important when the caller ID may be spoofed, as it can greatly assist with identification of the actual caller.<sup>44</sup>

16. The record provides extensive support for requiring voice service providers' response to traceback requests.<sup>45</sup> Commenters report that traceback is critical to protecting consumers and has proven

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<sup>41</sup> 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>.

<sup>42</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7644-45, paras. 95-97. The TRACED Act addresses private-led traceback efforts in section 13. TRACED Act § 13. We do not construe this to foreclose our other authority to take additional steps regarding traceback outside of, or in conjunction with, the private-led efforts described in that section.

<sup>43</sup> In that proceeding, we required originating and terminating voice service providers that have not yet implemented caller ID authentication on their entire networks to commit to cooperate with traceback requests from the Commission, law enforcement, and the Consortium. We also required that intermediate providers either authenticate unauthenticated calls or similarly commit to respond to traceback requests from the Commission, law enforcement, or the Consortium. *Second STIR/SHAKEN Order* at 44, 68-71, paras. 82, 140-47.

<sup>44</sup> Traceback is the process of following the path of a call back to the point of origination. This is generally done by obtaining information from each voice service provider in the call chain regarding where they received the call, whether that is an upstream voice service provider or a customer. This is particularly valuable in the spoofing context, where truthful responses from voice service providers allow callers to be identified regardless of the caller ID information.

<sup>45</sup> ACA Connects – America's Communications Association Comments at 2 (ACA Connects); AT&T Comments at 9; Cloud Communications Alliance Comments at 10 (CCA); Comcast Comments at 10-11; NTCA – The Rural Broadband Association Comments at 6 (NTCA); Numeracle Comments at 7-8; USTelecom – The Broadband

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to be highly effective where voice service providers cooperate.<sup>46</sup> Traceback is valuable when callers spoof, and quick action can be especially beneficial; indeed, absent attestation information from the STIR/SHAKEN framework, there is no other way to identify a call's source.<sup>47</sup> Many voice service providers already maintain information in order to voluntarily respond to traceback requests from industry groups, or in order to respond to subpoenas.<sup>48</sup> Based on the successes of the USTelecom Industry Traceback Group, even before its designation as the Consortium, we expect that the information voice service providers already keep to respond as "good citizens" to traceback requests will satisfy our new requirement.<sup>49</sup>

17. Some commenters express concern that traceback requests may not go to the correct contact within the organization.<sup>50</sup> We encourage voice service providers to publicly designate a point of contact for such requests. Where a voice service provider fails to do so, it risks missing valid requests and violating this requirement. One commenter notes that some voice service providers may not be familiar with the process and urged the Commission to ensure that enough time was allotted for response.<sup>51</sup> Although we do not require immediate responses, voice service providers should respond as quickly as possible.<sup>52</sup> We note that quick response is essential, as delayed responses can reduce the value of the traceback process, making it harder to track down bad actors.

18. *Entities Authorized to Make the Request.* We adopt our proposal to require voice service providers to respond to traceback requests from the Commission, civil and criminal law enforcement, and the Consortium. As we did in the *Second STIR/SHAKEN Order*, we encourage, but do not require, law enforcement to make such requests through the Consortium, where possible.<sup>53</sup> This will improve efficiency and help ensure that requests are handled in a consistent manner. In requiring response to the Consortium, we do not vest any authority in the Consortium or its members to address non-compliance

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Association Comments at 3-6 (USTelecom); WTA – Advocates for Rural Broadband Comments at 9 (WTA) ; USTelecom Reply Comments at 7.

<sup>46</sup> See, e.g., AT&T Comments at 9; CCA Comments at 10; NCTA – The Internet & Television Association Comments at 6 (NCTA); Numeracle Comments at 7-8; USTelecom Comments at 3-5.

<sup>47</sup> See, e.g., Numeracle Comments at 7-8. The STIR/SHAKEN caller ID authentication framework allows for three levels of attestation. A-level attestation, sometimes called "full" 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-level attestation, sometimes called "partial" attestation, only requires that the first two requirements be met. Finally, C-level attestation, sometimes called "gateway" 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)." 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>.

<sup>48</sup> See, e.g., USTelecom Comments at 3-4 (discussing the success of the Industry Traceback Group's processes).

<sup>49</sup> We do not impose a record-keeping requirement for this obligation to respond to traceback requests from the Commission, law enforcement, and the Consortium. We note, however, that if we find that there is a significant pattern of voice service providers responding that they do not keep such call detail records, we may consider imposing such a requirement.

<sup>50</sup> ACA Connects Comments at 10-11; CCA Comments at 10-11.

<sup>51</sup> ACA Connects Comments at 10-11.

<sup>52</sup> We generally expect responses within a few hours, and certainly in less than 24 hours absent extenuating circumstances. Patterns of delayed response may lead to Commission enforcement.

<sup>53</sup> See *Second STIR/SHAKEN Order* at 42-43, para. 79 n.312.

under our rules. Instead, the Consortium should inform the Commission when they identify a pattern of non-compliance, and the Commission will take any appropriate action. The record provides strong support for requiring a response to requests from each of these three entities and does not support further expansion of the list.<sup>54</sup> Our decision to require response to traceback requests from these three entities is consistent with the requirements we adopted for robocall mitigation and intermediate providers in the *Second STIR/SHAKEN Order*.<sup>55</sup>

19. We disagree with those commenters that propose different requirements or offer alternate proposals. WTA asks that we make clear that “voice service providers are required by law to respond to Traceback Consortium requests and entitled to the same protections when doing so as if such requests had come from the Commission or law enforcement.”<sup>56</sup> They do not specify what protections they are specifically concerned with or why the Consortium would be differently positioned with regard to these protections. With our action here, voice service providers are now legally required to respond to traceback requests from the Consortium, and voice service providers are entitled to any protections inherent in complying with such a legal obligation.

20. Comcast asks that we reiterate our prior statement that traceback requests from the Consortium are covered under section 222(d)(2) of the Act.<sup>57</sup> We find that our previous statement on this point is sufficient;<sup>58</sup> it was clear and should assuage voice service provider concerns about responding to requests. To the extent that voice service providers are required to obtain “appropriate legal authorization,” as Comcast states, we note that voice service providers need only respond to traceback requests from the Commission and law enforcement when such requests are made consistent with other legal and regulatory requirements.<sup>59</sup>

21. We further decline commenter requests to limit traceback requests, requiring a response solely to those from the Consortium,<sup>60</sup> or to provide further guidance regarding how to respond to requests from entities other than the Consortium.<sup>61</sup> While the Consortium process is efficient, and we encourage law enforcement to make use of it where possible, the Commission and law enforcement can already make these requests outside of that process and we see no reason why voice service providers should not be required to respond to any such requests that are consistent with other legal and regulatory requirements.

## **2. Take Steps to Effectively Mitigate Illegal Traffic when Notified by the Commission**

22. We adopt a modified version of our proposal to require voice service providers to take steps to effectively mitigate illegal traffic when notified by the Commission.<sup>62</sup> Specifically, we direct the

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<sup>54</sup> See, e.g., ACA Connects Comments at 2; AT&T Comments at 10; CCA Comments at 10; Comcast Comments at 10-11; NCTA Comments at 6; Numeracle Comments at 7-8; USTelecom Comments at 3-6; WTA Comments at 9.

<sup>55</sup> *Second STIR/SHAKEN Order* at 42-43, 69-71, paras. 79, 144-46.

<sup>56</sup> WTA Comments at 9.

<sup>57</sup> Comcast Comments at 10.

<sup>58</sup> See *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, 35 FCC Rcd 3113, 3121, para. 26 & n.59.

<sup>59</sup> Comcast Comment at 10-11.

<sup>60</sup> See, e.g., AT&T Comment at 10.

<sup>61</sup> See, e.g., Comcast Comment at 10-11.

<sup>62</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7645, paras. 98-100. For purposes of this *Order*, we use the terms “illegal calls” and “illegal traffic” interchangeably and define them as any calls or traffic that violate:

(continued....)

Commission's Enforcement Bureau to identify suspected illegal calls and provide written notice to voice service providers. This requirement builds on the safe harbor we established in the *Call Blocking Order and Further Notice*.<sup>63</sup> That safe harbor permits downstream voice service providers to block calls where an upstream voice service provider failed to effectively mitigate illegal traffic after being notified of such traffic by the Commission.<sup>64</sup> This requirement takes the additional step of holding the notified voice service provider liable for that failure.

23. When providing the notice under this new rule, the Enforcement Bureau shall: (1) identify with as much particularity as possible the suspected traffic; (2) cite the statutory or regulatory provisions the suspected traffic appears to violate; (3) provide the basis for the Enforcement Bureau's reasonable belief that the identified traffic is unlawful, including any relevant nonconfidential evidence from credible sources such as the Consortium or law enforcement agencies; and (4) direct the voice service provider receiving the notice that it must comply with section 64.1200(n)(2) of the Commission's rules. We generally expect that the Enforcement Bureau will notify either the originating voice service provider that has a direct relationship to the caller or the intermediate provider that is the gateway onto the U.S. network.

24. Upon receiving such notice, the voice service provider must promptly investigate the traffic identified in the notice and either take steps to effectively mitigate the identified traffic, in the manner described below, or respond to the Commission that the service provider has a reasonable basis for concluding that the identified calls are not illegal. If the notified voice service provider determines that such traffic comes from an upstream voice service provider with direct access to the U.S. public switched telephone network, the notified voice service provider must promptly inform the Commission of the source of the traffic and, if possible, take lawful steps to effectively mitigate this traffic. Such steps could include, for example, enforcing contract terms or blocking the calls from bad actor providers.<sup>65</sup>

25. Each notified voice service provider must promptly report the results of its investigation to the Enforcement Bureau, including any steps the voice service provider has taken to effectively mitigate the identified traffic, or an explanation as to why the voice service provider reasonably concluded that the identified calls were not illegal, and what steps it took to reach that conclusion. We emphasize that a "reasonable basis for concluding that the calls are not illegal" requires sufficient due diligence on the part of the voice service provider making such a determination. For example, the mere existence of a contractual provision forbidding illegal calls on the network is not sufficient to make this determination. Similarly, in cases where a caller makes telemarketing calls that include prerecorded or artificial voice messages, is it not reasonable to rely solely on a caller's written or verbal assurances in lieu of documented proof of prior express written consent from the called parties.<sup>66</sup> Callers that believe that they have been blocked in error can seek review by the Commission through existing mechanisms.

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(1) the requirements of the Telephone Consumer Protection Act of 1991 or the Truth in Caller ID Act of 2009; (2) the related Commission regulations implementing the Telephone Consumer Protection Act or the Truth in Caller ID Act; (3) the FTC's Telemarketing Sales Rule; or (4) any federal or state law or regulation that prohibits calls made for the purpose of defrauding a consumer. *See, e.g.*, 47 U.S.C. § 227; 47 CFR §§ 64.1200, 64.1604; 16 CFR pt. 310. The definition we adopt today is based on the definition the Commission proposed in 2017. *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Notice of Proposed Rulemaking and Notice of Inquiry, 32 FCC Rcd 2306, 2311, para.13 (2017).

<sup>63</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7627-31, paras. 35-45.

<sup>64</sup> *Id.*

<sup>65</sup> *See, e.g., id.*

<sup>66</sup> *See* 47 CFR § 64.1200(f)(8) (definition of "prior express written consent," setting forth the documentary requirements a telemarketing robocaller must collect and maintain before making robocalls); *Rules and Regulations* (continued....)

26. For a voice service provider to take steps to “effectively mitigate” the traffic identified, it must first investigate to identify the source of that traffic. Where the source is a customer or some other entity that does not have direct access to the U.S. public switched telephone network, the voice service provider must take steps to prevent that source from continuing to originate such traffic. This could mean ending a customer relationship, limiting access to high-volume origination services, or any other steps that have the effect of stopping this traffic and preventing future, similar traffic. We do not expect that originating voice service providers will need to block calls to comply with this requirement, as such voice service providers have a direct relationship with the customer and can use other mechanisms to address these issues. We note, however, that blocking may be necessary for gateway providers to comply with these requirements.

27. We anticipate that this requirement will primarily impact originating or gateway voice service providers. If, however, a voice service provider receiving notification from the Commission determines that the source of the illegal traffic is another voice service provider with access to the U.S. public switched telephone network, it must notify the Commission. The originally notified voice service provider must, if possible, take any otherwise lawful steps available to effectively mitigate the identified traffic. Where a voice service provider cannot take immediate action, we encourage voice service providers to use the safe harbor for provider-based blocking we adopted in the *Call Blocking Order and Further Notice* once the criteria for that safe harbor have been met.<sup>67</sup>

28. The record supports this requirement.<sup>68</sup> One commenter specifically indicates that only the Commission should be able to provide notice of bad traffic and trigger this requirement.<sup>69</sup> We agree. If other entities provided notice in this context, it could lead to increased burdens and duplicative notice. And limiting the ability to trigger this requirement to the Commission ensures that voice service providers cannot use this requirement for anticompetitive reasons. We accordingly decline to authorize the Consortium to provide this notice, as one commenter requests.<sup>70</sup>

29. We decline one commenter’s request that we prescribe specific steps voice service providers must take to comply.<sup>71</sup> The record shows that voice service providers need some flexibility to respond to illegal calls.<sup>72</sup> As USTelecom notes, measures may become obsolete as illegal callers change their methods.<sup>73</sup> Similarly, prescribing specific methods could tip off those same illegal callers.<sup>74</sup> We

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*Implementing the Telephone Consumer Protection Act of 1991*, Report and Order, 27 FCC Rcd 1830, 1838-44, paras. 20-34 (2012).

<sup>67</sup> 47 CFR § 64.1200(k)(4); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7627-31, paras. 35-45 (establishing a safe harbor for the blocking of all calls from a particular voice service provider when that voice service provider is notified by the Commission of particular bad traffic and then fails to effectively mitigate that bad traffic or fails to take effective measures to prevent new and renewing customers from originating illegal calls).

<sup>68</sup> See, e.g., CCA Comments at 13; NCTA Comments at 6; WTA Comments at 10-11.

<sup>69</sup> NCTA Comments at 6.

<sup>70</sup> See USTelecom Comments at 6-7.

<sup>71</sup> See WTA Comments at 10-11. Our non-prescriptive approach here is consistent with the rules we adopted regarding appropriate robocall mitigation programs in the *Second STIR/SHAKEN Order*. *Second STIR/SHAKEN Order* at 41-43, paras. 76-80.

<sup>72</sup> CCA Comments at 13; NCTA Comments at 6; USTelecom Comments at 7; INCOMPAS Reply Comments at 5.

<sup>73</sup> USTelecom Comments at 7.

<sup>74</sup> *Id.*

also decline to adopt a specific robocall mitigation program.<sup>75</sup> We have separately defined an appropriate robocall mitigation program for purposes of TRACED Act section 4(b).<sup>76</sup> Our requirement here is distinct from a voice service provider's obligations under that provision of the TRACED Act and applies to all voice service providers, rather than simply those that were granted an extension to the June 30, 2021, STIR/SHAKEN implementation deadline.

30. We recognize that intermediate and terminating voice service providers have limited visibility into the actual source of the traffic.<sup>77</sup> We accordingly do not expect perfection in mitigation, nor do the rules we adopt require an intermediate or terminating voice service provider to block all calls from a particular source. Further, the rules we adopt today only require mitigation steps from originating or gateway voice service providers. While gateway providers may need to engage in blocking to comply with this rule, we do not expect them to block all traffic, and encourage use of other methods where available.

31. Finally, we note that the requirement to report to the Commission regarding the results of the investigation and mitigation steps taken implicates the Paperwork Reduction Act, as indicated in the Final Regulatory Flexibility Act, contained in Appendix C.

### **3. Implement Effective Measures to Prevent New and Renewing Customers from Originating Illegal Calls**

32. We adopt our proposal to require voice service providers to adopt affirmative, effective measures to prevent new and renewing customers from using their network to originate illegal calls.<sup>78</sup> We require that all originating voice service providers know their customers and exercise due diligence in ensuring that their services are not used to originate illegal traffic. Beyond that, we do not require that voice service providers take specific, defined steps, but instead permit them flexibility to determine what works best on their networks. We do recommend that voice service providers exercise caution in granting access to high-volume origination services, to ensure that bad actors do not abuse such services.

33. The record generally supports adopting some form of affirmative requirement.<sup>79</sup> Originating and gateway voice service providers are best positioned to prevent illegal calls by stopping them before they enter the network. When originating and gateway providers stop these calls in the first instance, it ensures that illegal traffic never enters the network, let alone reaches consumers. This reduces unnecessary load on our communications network and especially benefits the customers of smaller or rural voice service providers that may be unable to implement robust blocking programs. It also permits voice service providers to be less aggressive in their opt-in or opt-out blocking programs without

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<sup>75</sup> See, e.g., AT&T Comments at 11; USTelecom Comments at 6; USTelecom Reply Comments at 10-11. USTelecom proposed a robocall mitigation program as part of the *Call Authentication Trust Anchor* proceeding. USTelecom Comments, WC Docket No. 17-97, at 3-13 (rec. May 15, 2020) (USTelecom STIR/SHAKEN Comments). The proposed program included a requirement that voice service providers "certify that they have implemented an 'appropriate robocall mitigation program' governing all traffic that the voice service provider originates on its network and does not sign using the STIR/SHAKEN authentication protocol." *Id.* at 3-4. The proposal laid out obligations for originating, intermediate, and terminating voice service providers and provided a non-exhaustive list of the types of steps a voice service provider could take as part of this program. *Id.* at 4-9. It further spoke to the role of enforcement and the Consortium. *Id.* at 9-13.

<sup>76</sup> *Second STIR/SHAKEN Order* at 39-49, paras. 74-94.

<sup>77</sup> See AT&T Comments at 11-12.

<sup>78</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7645, paras. 101-02.

<sup>79</sup> See, e.g., CCA Comments at 13-14; Comcast Comments at 9; Competitive Carriers Association Comments at 5 (Competitive Carriers); Numeracle Comments at 8; USTelecom Comments at 6-8; Voice on the Net Comments at 2 (VON); WTA Comments at 10-11.

worrying that they are leaving their customers unprotected. This in turn benefits callers that wish to use high-volume calling services lawfully by reducing the risk that their calls will be blocked in error.

34. We agree with the commenters that urge us to give voice service providers flexibility.<sup>80</sup> Different call patterns may require different approaches, and methods that are appropriate for one voice service provider may not be the best for others. Voice service providers can comply in a number of ways, so long as they know their customers and take measures that have the effect of actually restricting the ability of new and renewing customers to originate illegal traffic. Flexibility reduces the burden on voice service providers. For example, voice service providers may extensively investigate new customers seeking access to high-volume origination services. Voice service providers may modify contracts to allow termination in the instance that such services are abused by new or renewing customers.

35. While more involved investigations represent some burden, particularly for smaller voice service providers, voice service providers of all sizes should be able to impose and enforce relevant contract terms. Of course, contract provisions are only effective if they are enforced, and voice service providers that refuse to do so fail to satisfy this requirement. We also clarify that, if voice service providers have already implemented effective measures, they do not need to take further steps at this time. Voice service providers, however, that have not done so will need to comply with this requirement when they accept new customers or renew existing customers after the date of these rules. We note, however, that the requirement to effectively mitigate illegal traffic when notified by the Commission, discussed in the preceding section, applies to traffic from any customer.

36. We disagree with commenters that urge us not to adopt this requirement.<sup>81</sup> NCTA is correct that “the vast majority of voice subscribers use their service lawfully.”<sup>82</sup> This fact does not, however, relieve a voice service provider of its responsibility to ensure bad actors do not use its network illegally and cause harm. Only originating voice service providers can prevent access to the network in the first instance and, in doing so, protect all consumers who might have otherwise received illegal calls. Some commenters raise concerns that if steps are not universally or completely effective, voice service providers could face liability despite best efforts or that, if extensive measures are required, small voice service providers may be unable to satisfy this requirement.<sup>83</sup> We make clear that we do not expect perfection; particularly clever bad actors may, for a time, evade detection. In these cases, a voice service provider could exercise its contractual remedies or take additional mitigation steps. If the voice service provider takes these steps and does not originate a significant amount of illegal traffic, it satisfies the rules we adopt today.<sup>84</sup>

#### 4. Legal Authority

37. Our legal authority to adopt these requirements stems from sections 201(b), 202(a), and 251(e) of the Communications Act of 1934, as amended (the Act), as well as from the Truth in Caller ID Act.<sup>85</sup> Section 201(b) and 202(a) grant us broad authority to adopt rules governing just and reasonable practices of common carriers. While these rules are clearly within the scope of our section 201(b) and

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<sup>80</sup> See, e.g., INCOMPAS Reply Comments at 5-6; USTelecom Comments at 7-8; VON Comments at 2.

<sup>81</sup> See, e.g., NCTA Comments at 7; NCTA Reply Comments at 9.

<sup>82</sup> NCTA Comments at 7.

<sup>83</sup> See, e.g., AT&T Comments at 11; Competitive Carriers Comments at 5.

<sup>84</sup> We expect that, as voice service providers develop more effective ways to identify, eliminate, and mitigate illegal traffic on their networks, what we consider “significant” amounts of illegal traffic will decrease. We strongly encourage all voice service providers to perform ongoing evaluations of their mitigation strategies and adopt changes as necessary to improve them.

<sup>85</sup> We received no comments addressing our legal authority to adopt these requirements.

202(a) authority, we find that it is essential that the rules apply to all voice service providers.<sup>86</sup> Absent broad application, VoIP would remain a safe haven for bad actors. Our section 251(e) numbering authority provides separate jurisdiction to prevent the fraudulent abuse of North American Numbering Plan (NANP) resources; this particularly applies where callers spoof caller ID for fraudulent purposes and therefore exploit numbering resources, regardless of whether the voice service provider is a common carrier. Similarly, the Truth in Caller ID Act grants us authority to prescribe rules to make unlawful the spoofing of caller ID information with the intent to defraud, cause harm, or wrongfully obtain something of value.<sup>87</sup> Taken together, section 251(e) of the Communications Act and the Truth in Caller ID Act grant us authority to prescribe rules to prevent the unlawful spoofing of caller ID and abuse of NANP resources by all voice service providers.

38. We find that the rules we adopt today reduce the chance of unlawfully spoofed calls reaching consumers, and thus are within our authority under the statutes referenced above. In particular, the requirement to respond to traceback requests directly impacts a caller's ability to unlawfully spoof caller ID by making it easier to detect the originator of the call. The other two requirements are aimed at curbing the use of NANP numbers (whether spoofed or not) for unlawful purposes as they are focused on mitigating and preventing illegal calls.

#### **B. Expanding the Safe Harbor Based on Reasonable Analytics to Network-Based Blocking**

39. We adopt our proposal to expand the safe harbor based on reasonable analytics to cover network-based blocking if the network-based blocking incorporates caller ID authentication information where available and otherwise meets the requirements we adopted both in the *Call Blocking Order and Further Notice* and elsewhere in this *Order*.<sup>88</sup> To get the benefit of this safe harbor, a terminating voice service provider must ensure its network-based blocking targets only calls highly likely to be illegal, not simply unwanted.<sup>89</sup> It must also manage this blocking with human oversight and network monitoring sufficient to ensure that the blocking works as intended; this must include a process that reasonably determines that the particular call pattern is highly likely to be illegal prior to blocking calls that are part of that pattern.<sup>90</sup> And we expect voice service providers to demonstrate they have conducted an

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<sup>86</sup> 47 U.S.C. § 154(i).

<sup>87</sup> *Id.* § 227(e)(1).

<sup>88</sup> 47 CFR § 64.1200(k)(3)(iv)-(vi), (5), (6), (8); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7625-27, 7633-35, paras. 25-34, 52-57.

<sup>89</sup> The Commission previously authorized blocking of unwanted calls based on reasonable analytics if the consumer can opt out. See 47 CFR § 64.1200(k)(3); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7625-27, paras. 25-34; *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4884-90, paras. 26-42. Here we permit providers to block calls no reasonable consumer would want to receive (those calls that are highly likely to be illegal) and thus do not require voice service providers to establish opt-out mechanisms. This is consistent with our finding in the *2017 Call Blocking Order*, where the Commission made clear that voice service providers may block certain categories of calls that are highly likely to be illegal. *2017 Call Blocking Order*, 32 FCC Rcd at 9710-21, paras. 20-40.

<sup>90</sup> Terminating voice service providers need not investigate each individual call before blocking. Instead, we expect them to investigate any particular suspicious call pattern and confirm that the calls are highly likely to be illegal before blocking. Once a terminating voice service provider determines that a particular call pattern is highly likely to be illegal, it may block all calls that are part of that pattern. This may or may not mean blocking all calls from a particular number, depending on the characteristics of the pattern. For example, if one number appears to be originating a mix of calls with A-level attestation and C-level attestation, and the voice service provider confirms that the calls with C-level attestation are highly likely to be illegal, but those with A-level attestation are likely to be lawful, the voice service provider should only block the calls with C-level attestation under the safe harbor we adopt today.

appropriate process should the Commission inquire about specific blocking. We base this decision on our previous finding that no reasonable consumer would want to receive calls that are highly likely to be illegal.<sup>91</sup> The safe harbor we adopt today ensures that terminating voice service providers can respond to evolving threats while safeguarding the calls consumers want.<sup>92</sup>

40. We agree with commenters that support expansion of the safe harbor.<sup>93</sup> Some voice service providers already engage in this type of blocking.<sup>94</sup> One voice service provider that blocks calls on its wholesale network based on analytics without consumer opt out or opt in, and that uses a similar process, indicates that it has “received only a small handful of complaints.”<sup>95</sup> It further notes that none of these complaints came from consumers and that fewer than 10 have warranted remedial action.<sup>96</sup> We find this low complaint-to-blocking ratio probative and thus disagree with commenters that argue that over-blocking concerns outweigh the value of this safe harbor.<sup>97</sup>

41. *Network Blocking Based on Reasonable Analytics.* In expanding our safe harbor, we first make clear that terminating voice service providers may block calls at the network level, without consumer opt in or opt out, if that blocking is based on reasonable analytics that incorporate caller ID authentication information designed to identify calls and call patterns that are highly likely to be illegal.<sup>98</sup> Terminating voice service providers must manage that blocking with human oversight and network monitoring sufficient to ensure that blocking is working as intended. This must include a process to reasonably determine that the particular call pattern is highly likely to be illegal prior to blocking calls. A terminating voice service provider must disclose to consumers that it is engaging in such blocking so that

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<sup>91</sup> See, e.g., *2017 Call Blocking Order*, 32 FCC Rcd at 9722, para. 44; AT&T Comments at 4; NCTA Comments at 3; T-Mobile Comments at 5; USTelecom Comments at 9-10; NCTA Reply Comments at 2-3; T-Mobile Reply Comments at 2.

<sup>92</sup> See, e.g., ACA Connects Comments at 9; Comcast Comments at 3-4; CTIA Comments at 3; NCTA Comments at 3; USTelecom Comments at 9-10; ACA Connects Reply Comments at 5.

<sup>93</sup> See, e.g., ACA Connects Comments at 2, 9; AT&T Comments at 2-6; Comcast Comments at 2-4; CTIA Comments at 3, 7-11, 3-7; NCTA Comments at 3; NCTA Reply Comments at 2-3; T-Mobile Comments at 5; CTIA Reply Comments at 1; FreedomWorks Foundation Reply Comments at 2; T-Mobile Reply Comments at 2-4; USTelecom Reply Comments at 2; Letter from Sara Leggin, Director, Regulatory Affairs, CTIA, Steve Morris, Vice President & Deputy General Counsel, NCTA – The Internet & Television Association, and Josh Bercu, Vice President, USTelecom – the Broadband Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CG Docket No. 17-59, at 2-4 (filed Nov. 17, 2020).

<sup>94</sup> AT&T Comments at 2-4; CTIA Comments at 7-8.

<sup>95</sup> AT&T Comments at 3-4.

<sup>96</sup> *Id.* at 4.

<sup>97</sup> See, e.g., Ad Hoc Telecom Users Committee Comments at 15 (Ad Hoc); INCOMPAS Comments at 3, 10-11; National Association of Federally Insured Credit Unions Comments at 3-4 (NAFCU); National Opinion Research Committee Comments at 10-12 (NORC); Twilio Comments at 6-7; WTA Comments at 11; Alarm Industry Communications Committee Reply Comments at 9-10 (AICC); INCOMPAS Reply Comments at 1-5; NORC Reply Comments at 7-8; Securus Reply Comments at 8-9; Wolters Kluwer Reply Comments at 1-2.

<sup>98</sup> Along with the specific requirements we describe in this section, we also require that blocking be non-discriminatory and competitively neutral, and provided with no line-item charge to consumers. We further require that voice service providers comply with the redress mechanisms we adopted in the *Call Blocking Order and Further Notice*. 47 CFR § 64.1200(k)(3)(iv)-(vi), (5), (6), (8); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7625-27, 7633-35, paras. 25-34, 52-57. This blocking is also subject to the same transparency and redress requirements we adopt in this *Order*, except the blocked calls list requirement, which only applies to blocking on an opt-in or opt-out basis.

consumers are fully aware of it.<sup>99</sup> In the *2017 Call Blocking Order*, the Commission authorized voice service providers to block, without consumer consent, certain categories of calls on the basis that no reasonable consumer would want to receive such calls.<sup>100</sup> Our decision here is an extension of this decision, making clear that a terminating voice service provider may block any calls that it determines are highly likely to be illegal based on certain defined parameters.

42. For purposes of this safe harbor, we make clear that terminating voice service providers must have in place a process to reasonably determine that the particular call pattern is highly likely to be illegal prior to blocking calls. Doing so will ensure that important calls, including emergency calls, are not blocked in error based solely on analytics. We do not prescribe the specific steps of this process but instead expect that it will include steps designed to find out whether the calls that are part of the call pattern in question are highly likely to be illegal such as dialing the telephone number from which the apparently illegal calls purportedly originate; reviewing complaint data about calls from the source; or contacting the originating voice service provider. The requirements we adopt today are consistent with the wholesale blocking program AT&T describes and has had in place for several years and there is no evidence in our record that it has resulted in over-blocking that outweighs the value of this new safe harbor.<sup>101</sup>

43. We urge terminating voice service providers to be thorough in this process to avoid blocking errors. In particular, we believe terminating voice service providers will need to use a combination of methods in their processes. For example, call-backs may work well for some types of high-volume traffic, but may not be determinative for emergency alerts since the number may not be set up to receive calls. We further clarify that, because we only authorize blocking of calls that are part of a call pattern that indicates the calls are highly likely to be illegal, when a terminating voice service provider learns that calls fitting this pattern are likely lawful, that voice service provider must immediately cease network-based blocking.<sup>102</sup> We note that a voice service provider may continue to block under this safe harbor while investigating a dispute prior to obtaining information that indicates the calls are likely lawful. We find that the protections we adopt today—that is, a process that includes objective criteria—are objective and should assuage those commenters that are concerned that the safe harbor as initially proposed did not establish objective standards.<sup>103</sup>

44. Noble Systems urges us to ensure that calls with A-level attestation are not blocked without a “manual investigation.”<sup>104</sup> Though we decline to adopt Noble Systems’ exact proposal, the process we require provides similar protections. We agree that having an appropriate process in place is important to ensure that calls are not blocked in error, but see no reason to confine this requirement to only calls with A-level attestation. This is particularly important prior to full deployment of STIR/SHAKEN because not all voice service providers are able to attest to calls. Furthermore, even

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<sup>99</sup> Terminating voice service providers must provide these disclosures in a manner that is clear and easy for a consumer to understand. For example, voice service providers could feature such information prominently on their websites, send information to existing customers via email, or explain the blocking program via inserts in customer bills. This notice ensures that consumers who wish to avoid all analytics-based blocking have the opportunity to switch voice service providers if they choose to do so.

<sup>100</sup> *2017 Call Blocking Order*, 32 FCC Rcd at 9710-21, paras. 20-40.

<sup>101</sup> AT&T Comments at 2-3.

<sup>102</sup> See, e.g., NORC Reply Comments at 7-8.

<sup>103</sup> See, e.g., INCOMPAS Comments at 3, 11; NORC Comments at 10-11; Twilio Comments at 7; INCOMPAS Reply Comments at 1-3.

<sup>104</sup> Noble Systems Reply Comments at 13.

those calls that initially receive A-level attestation may not reach the terminating voice service provider with that attestation.

45. Some commenters raise concerns that current analytics-based blocking programs block lawful robocalls, but this argument fails to acknowledge that our existing rules clearly permit blocking of calls that are unwanted, rather than illegal, so long as the consumer has an opportunity to opt in or out.<sup>105</sup> As a result, evidence that some unwanted, lawful calls are blocked does not mean that blocking is inconsistent with our rules. Evidence also indicates that most consumers prefer current blocking programs to the alternative.<sup>106</sup> For example, AT&T indicates that opt-out rates are “incredibly low” for its Call Protect service.<sup>107</sup> Although a few commenters also argue that network-based blocking takes power out of the hands of consumers,<sup>108</sup> we believe no reasonable consumer would want to receive calls that are highly likely to be illegal.<sup>109</sup> The safeguards we establish ensure terminating voice service providers will block precisely this type of call, saving consumers the step of having to opt in to that benefit.

46. We believe the requirements we adopt today strike an appropriate balance between the needs of callers, consumers, and terminating voice service providers by ensuring that terminating voice service providers can readily block calls that are highly likely to be illegal without having to take specific steps that would be burdensome to comply with, while also ensuring that such blocking impacts a minimal number of lawful calls. We thus disagree with commenters that urge the Commission to take additional steps before expanding our safe harbor.<sup>110</sup> We encourage industry, including enterprise callers, to work together to adopt additional best practices where appropriate, but find that the rules we adopt for this safe harbor provide sufficient protection against the blocking of lawful calls.

47. *Legal Authority.* Our legal authority for expanding this safe harbor stems from sections 201(b), 202(a), and 251(e) of the Communications Act as well as section 4(c) of the TRACED Act. Sections 201(b) and 202(a) have formed the basis of the Commission’s prohibitions on call blocking. As we have found in the past when establishing call blocking safe harbors, this safe harbor relies in part on

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<sup>105</sup> See, e.g., Ad Hoc Comments at 15; NAFCU Comments at 3-4; AICC Reply Comments at 9; INCOMPAS Reply Comments at 3-4; NORC Reply Comments at 7-8; Wolters Kluwer Reply Comments at 1-2; see also 47 CFR § 64.1200(k)(3); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7625-27, paras. 25-34; *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4884-90, paras. 26-42.

<sup>106</sup> Our own complaint data does not show a pattern of consumer complaints regarding over-blocking based on reasonable analytics. We have received a small number of complaints that appear to raise over-blocking concerns that could be based on analytics. See, e.g., Complaint 422051 (Sept. 11, 2020); Complaint 3944532 (Apr. 24, 2020); Complaint 3829860 (Feb. 18, 2020); Complaint 3754079 (Jan. 14, 2020). By contrast, unwanted calls remain the Commission’s top source of consumer complaints. FCC, *Consumer Complaint Data Center*, <https://www.fcc.gov/consumer-help-center-data> (last visited Dec. 20, 2020).

<sup>107</sup> AT&T Comments at 4-5.

<sup>108</sup> See, e.g., INCOMPAS Comments at 11; Twilio Comments at 6-7; WTA Comments at 11.

<sup>109</sup> See, e.g., *2017 Call Blocking Order*, 32 FCC Rcd at 9722, para. 4; AT&T Comments at 4; NCTA Comments at 3; T-Mobile Comments at 5; USTelecom Comments at 9-10; NCTA Reply Comments at 2-3; T-Mobile Reply Comments at 2.

<sup>110</sup> See, e.g., Ad Hoc Comments at 15; NAFCU Comments at 3-4; NORC Comments at 11; INCOMPAS Reply Comments at 4-5; Noble Systems Reply Comments at 11-13; Professional Association for Customer Engagement Reply Comments at 2 (PACE); SiriusXM Reply Comments at 9. Some commenters argue for the establishment of an advisory working group. See, e.g., Ad Hoc Comments at 15; INCOMPAS Reply Comments at 4-5. Others push for expanded transparency and redress requirements beyond those we adopt in this *Order*. See, e.g., Ad Hoc Comments at 15; NAFCU Comments at 3-4; NORC Comments at 11; Noble Systems Reply Comments at 11-13; PACE Reply Comments at 2; Securus Reply Comments at 8-9; SiriusXM Reply Comments at 9. Finally, PACE urges us to place a blanket prohibition on blocking calls with A-level attestation. See PACE Reply Comments at 2.

our authority to establish what practices are just and reasonable under section 201(b).<sup>111</sup> Section 251(e) gives the Commission authority over the use and allocation of numbering resources in the United States.<sup>112</sup> We exercise this authority to make clear that use of NANP numbers for unlawful purposes is not permitted. In such instances, callers have no legitimate interest in using NANP numbers to make calls to consumers. Finally, section 4(c) of the TRACED Act confirms our legal authority to expand our safe harbor here. This safe harbor is based “in whole or in part, on information provided by the call authentication frameworks.”<sup>113</sup> Specifically, while this safe harbor is not based in whole on caller ID authentication information, it does require terminating voice service providers to take this information into consideration where available. We received only one comment addressing our legal authority, which agrees with our findings here.<sup>114</sup>

### C. Enhanced Transparency and Redress Requirements

48. When voice service providers block wanted calls, both callers and consumers may suffer. Callers are unable to reach consumers to provide them with information, which harms their ability to do business. Consumers may miss information they want or need, such as fraud alerts or important account information.<sup>115</sup> To minimize these problems, section 10(b) of the TRACED Act directs the Commission to ensure that both callers and consumers are provided with transparency and effective redress when wanted calls are blocked using call blocking programs provided on an opt-in or opt-out basis pursuant to our *Call Blocking Declaratory Ruling and Further Notice*.<sup>116</sup> Furthermore, section 4(c)(1)(C) of the TRACED Act directs us to establish a process by which a caller that is adversely affected by caller ID authentication information can verify the authenticity of its calls.<sup>117</sup>

49. Consistent with the TRACED Act and building on our *Call Blocking Order and Further Notice*, we adopt additional requirements to provide callers and consumers with more transparency to ensure that they can effectively access redress mechanisms, and ensure that a caller can verify the authenticity of its calls.<sup>118</sup> First, we require terminating voice service providers that block calls to immediately notify the caller that the call has been blocked by sending either a Session Initiation Protocol (SIP) or ISDN User Part (ISUP) response code, as appropriate, and we require all voice service providers in the call path to transmit these codes to the origination point.<sup>119</sup> Second, we require terminating voice service providers that block calls on an opt-in or opt-out basis to disclose to their subscribers a list of blocked calls upon request. Third, when a calling party disputes whether blocking its calls is appropriate, we require terminating voice service providers to provide a status update to the party that filed the dispute within 24 hours. We require that the point of contact which terminating voice service providers have established to handle blocking disputes also handle contacts from callers that are adversely affected by

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<sup>111</sup> See, e.g., *Call Blocking Order and Further Notice*, 35 FCC Red at 7637, para. 62.

<sup>112</sup> 47 U.S.C. § 251(e).

<sup>113</sup> TRACED Act § 4(c) (codified at 47 U.S.C. § 227b(c)).

<sup>114</sup> Comcast Comments at 4.

<sup>115</sup> See, e.g., Encore Comments at 3.

<sup>116</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)).

<sup>117</sup> *Id.* § 4(c)(1)(C) (codified at 47 U.S.C. § 227b(c)(1)(C)).

<sup>118</sup> *Call Blocking Order and Further Notice*, 35 FCC Red at 7634-35, 7642-44, 7646-48, paras. 54-57, 85, 91-94, 107-12.

<sup>119</sup> We note that callers may need to make software upgrades or configuration changes to ensure that they receive and process these codes. The originating voice service provider should ensure that a caller with the correct equipment receives the code.

information provided by caller ID authentication seeking to verify the authenticity of their calls. Finally, we decline to address the issue of erroneous labeling at this time.

50. Before turning to the details of our requirements, we address how voice service provider use of third parties to block calls impacts their responsibility for compliance with our requirements. We expect voice service providers to satisfy those requirements, whether or not they use a third party, to ensure that the safeguards we adopt to prevent erroneous blocking apply across the network. We therefore decline to allow voice service providers to avoid liability solely because they make use of a third-party service.<sup>120</sup> By contrast, a voice service provider is not responsible for blocking done by a blocking service chosen by the consumer such as a blocking app.

51. Finally, we applaud industry efforts to develop blocking best practices. But we do not believe the benefits consumers and callers will realize from our new requirements should await completion of those best practices<sup>121</sup> and the TRACED Act requires us to reach a final decision regarding transparency and effective redress by December 30, 2020.<sup>122</sup>

### 1. Immediate Notification of Blocking

52. We require terminating voice service providers that block calls to immediately notify callers of such blocking. We further direct all voice service providers to perform necessary software upgrades to ensure the codes we require for such notification are appropriately mapped; voice service providers must ensure that calls that transit over TDM and IP networks return an appropriate code. We require all voice service providers in the call path to transmit the code, or its equivalent, as discussed below, to the origination point so that callers with the appropriate equipment may receive timely notice of a blocked call. Our requirements ensure that legitimate callers know when their calls are blocked so they can seek redress.<sup>123</sup>

53. Many commenters support immediate notification, arguing that a caller cannot readily access redress if it is uncertain whether calls are being blocked.<sup>124</sup> Immediate notification also allows callers to access redress more rapidly and, potentially, use alternative means to contact the consumer with important information.<sup>125</sup>

54. Some commenters object to an immediate notification requirement, arguing that immediate notification provides valuable information to bad actors<sup>126</sup> or burdens smaller voice service

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<sup>120</sup> See, e.g., NCTA Reply Comments at 8.

<sup>121</sup> See, e.g., USTelecom Reply Comments at 6.

<sup>122</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)).

<sup>123</sup> See, e.g., Ad Hoc Comments at 10; American Bankers Association et al. Comments at 4 (ABA et al.); CCA Comments at 2-3; Encore Comments at 2-3; NAFCU Comments at 1-2; Noble Systems Comments at 8; RingCentral Comments at 3.

<sup>124</sup> See, e.g., ABA et al. Comments at 4, 11; Ad Hoc Comments at 10; CCA Comments at 2-3; Encore Comments at 3; NAFCU Comments at 1-2; Noble Systems Comments at 8; ABA et al. Reply Comments at 2-7; Ad Hoc Reply Comments at 3; AICC Reply Comments at 7; Noble Systems Reply Comments at 4-5; Securus Reply Comments at 3-4; SiriusXM Reply Comments at 4-5; Letter from Michael Pryor, Counsel for the Credit Union National Association, Brownstein Hyatt Farber Schreck, LLP, to Marlene Dortch, Secretary, Federal Communications Commission, CG Docket No. 17-59, at 1 (filed Dec. 2, 2020) (Trade Associations *Ex Parte*).

<sup>125</sup> See, e.g., Ad Hoc Comments at 18; CCA Comments at 2-3; Noble Systems Comments at 12-14; VON Comments at 3-4.

<sup>126</sup> See, e.g., Neustar Comments at 5; Transaction Network Services Comments at 3 (TNS); First Orion Reply Comments at 6-7; NCTA Reply Comments at 4-5; USTelecom Reply Comments at 5.

providers.<sup>127</sup> As some commenters note, bad actors can recognize even the smallest signals that calls may be blocked.<sup>128</sup> Bad actors can already rapidly adjust their calling patterns and are likely to change numbers as soon as connection rates drop, regardless of immediate notification. And we find that the potential harm from providing notifications to bad actors is more than offset by the significant benefit to legitimate callers, which otherwise may not know why their calls are not reaching the intended recipient and therefore may be unable to access redress. We also decline to require notification before calls are blocked.<sup>129</sup> Such a requirement would frustrate the purpose of call blocking by eliminating the ability of a voice service provider to respond rapidly to aberrant call patterns.

55. We also decline one commenter's request to require an immediate notification "to a caller whose call is misidentified through the STIR/SHAKEN call authentication framework," which we assume refers to incorrect attestation.<sup>130</sup> The terminating voice service provider, which would provide this notification, is not properly situated to know that the call has been misidentified under STIR/SHAKEN and therefore cannot reasonably provide this notice.

56. *Method of Notification.* To ensure that callers understand these notifications and can make informed decisions regarding next steps, we require voice service providers to use specific, existing codes when blocking calls.<sup>131</sup> Callers with properly configured equipment will thereby receive sufficient information to determine whether to access redress or investigate the blocking further. We require that terminating voice service providers that block calls on an IP network return SIP Code 607 or 608, as appropriate.<sup>132</sup> Both of these codes are designed to be used for call blocking. Because SIP codes are not available on non-IP networks, ISUP code 21 is the appropriate code for calls blocked on a TDM network.<sup>133</sup> Therefore, we require that terminating voice service providers that block calls on a TDM network return ISUP code 21.

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<sup>127</sup> See, e.g., WTA Comments at 12-13; Lumen Technologies Reply Comments at 1-2, 5-7; NCTA Reply Comments at 5-6. The requirements we adopt today make use of existing tools voice service providers already use in other contexts. As a result, voice service providers' networks should already be capable of handling these codes; the only changes needed are for voice service providers to ensure that appropriate steps are taken when calls move between VoIP and TDM. Additionally, we do not require voice service providers to provide different responses when the grounds for blocking change, further reducing the burden and ensuring that this can be done in an automated manner.

<sup>128</sup> See, e.g., NAFCU Comments at 2-3; Noble Systems Comments at 18-22.

<sup>129</sup> See, e.g., Encore Comments at 2-3; Insights Association Comments at 2.

<sup>130</sup> ABA et al. Comments at 10-11.

<sup>131</sup> We note that callers may need to make upgrades to their systems to ensure that they receive these codes. We encourage callers that are concerned about erroneous blocking to do so. We further encourage originating voice service providers to work with their enterprise customers to ensure that these codes are properly passed.

<sup>132</sup> SIP Codes 607 and 608 are defined by the IETF to be used in the call blocking context. Internet Engineering Task Force, *A SIP Code for Unwanted Calls* (July 2017), <https://tools.ietf.org/html/rfc8197> (*SIP Code 607 Specification*); Internet Engineering Task Force, *A Session Initiation Protocol (SIP) Response Code for Rejected Calls* (Dec. 2019), <https://tools.ietf.org/html/rfc8688> (*SIP Code 608 Specification*). Code 607 is used when the called party indicates a call is unwanted. *SIP Code 607 Specification*. Code 608, however, indicates a call was rejected by an intermediary, with the initial use case being calls rejected by an analytics engine, as opposed to by the called party. *SIP Code 608 Specification*. We expect that most blocking offered by IP-based voice service providers will use code 608. We recognize, however, that code 607 may be more appropriate when the called party plays a role in the rejection, e.g., when the caller is not on a customer's white list.

<sup>133</sup> To reduce ambiguity, we require that the cause location be "user" when using ISUP code 21 in this manner. Internet Engineering Task Force, *Integrated Service Digital Network (ISDN) User Part (ISUP) to Session Initiation Protocol (SIP) Mapping* (Dec. 2002), <https://tools.ietf.org/html/rfc3398> (*ISUP and SIP Code Mapping Specification*). We recognize that ISUP code 21, even with the specified cause location, does not provide the same

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57. Many calls transit both IP-based and TDM networks. We therefore establish requirements regarding how these codes map, or translate, when call signaling transits between IP and TDM. For signals moving from IP to TDM, we direct voice service providers, regardless of their position in the network, to make any necessary upgrades or software configuration changes to ensure that SIP Codes 607 and 608 map to ISUP code 21.<sup>134</sup> In certain cases, callers may also receive SIP code 603 when calls have been blocked.<sup>135</sup> This is likely to occur when call signaling transits from TDM to IP. We further note that the specifications for SIP code 608 give some guidance for interoperability, including the playing of an announcement.<sup>136</sup> We strongly encourage voice service providers to use this portion of the specification to eliminate confusion caused by ISUP code 21's multiple uses.

58. Many commenters specifically support use of a SIP or ISUP code.<sup>137</sup> Commenters argue that these codes ensure that notification of blocking is uniform, clear, and distinct from other signals, such as a busy signal, and ensure that callers can act on this information.<sup>138</sup> Commenters also note that using

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level of detail as either SIP code 607 or 608, and may be used in other contexts as well. As a result, receipt of ISUP code 21 does not guarantee that the call was blocked, but instead provides a signal that further investigation may be warranted.

<sup>134</sup> The IETF has provided some guidance on code mapping, but does not currently fully address the issue of mapping between SIP code 607 or 608 and a corresponding ISUP code. *ISUP and SIP Code Mapping Specification*. We require that, when translating either 607 or 608 to an ISUP code, voice service providers use ISUP code 21.

<sup>135</sup> IETF documentation currently recommends that ISUP code 21 be mapped to either SIP code 403 "Forbidden" or, where the cause location is "user," SIP code 603 "Decline." *ISUP and SIP Code Mapping Specification*. It is unlikely that SIP code 403 will be used where 607 or 608 is appropriate. We recognize, however, that, because the distinguishing factor is the cause location, it may be impossible for voice service providers to determine whether 603, 607, or 608 is the appropriate code when receiving cause code 21 with a cause location of "user." For purposes of satisfying the rules we adopt today, we permit a voice service provider to use any of these codes it deems appropriate. Because the IETF recommends code 603, we encourage voice service providers to continue using this approach unless they have clear knowledge that 607 or 608 is the more appropriate code. As a result, when ISUP code 21 or SIP code 603 is returned, callers should investigate as they would if SIP code 607 or 608 were indicated.<sup>135</sup>

<sup>136</sup> *SIP Code 608 Specification*.

<sup>137</sup> See, e.g., Ad Hoc Comments at 10, 18 (discussing the need for immediate notification and advocating for a unique signal code); CCA Comments at 5-6, 7 (supporting use of SIP codes and specifically discussing codes 607 and 608, including noting that 608 includes standards for interoperability, including playing of an audio announcement); Encore Comments at 4 (calling for a uniform notification language across voice service providers); INCOMPAS Comments at 12 (encouraging the Commission to promote SIP code 608); NAFCU Comments at 2 (calling for use of SIP/ISUP codes or intercept messages); NORC Comments at 10 (calling for, at minimum, a signal distinct from a busy or disconnect tone); Noble Systems Comments at 26-27 (calling for use of both SIP codes and intercept messages); PACE Comments at 3 (calling for clear and specific immediate notification); PACE Reply Comments at 2 (calling for both SIP codes and intercept messages); RingCentral Comments at 3-5 (calling for use of a SIP code or TDM cause code); Securus Comments at 8 (mentioning SIP code 608); Telnix Comments at 2 (supporting use of SIP code 608); Twilio Comments at 5 (calling for use of an intercept code, such as a SIP code); Noble Systems Reply Comments at 5 (renewing their argument for both SIP codes and intercept messages); Securus Reply Comments at 4 (pointing out the support in the record for SIP and ISUP codes); SiriusXM Reply Comments at 6 (calling for us to require both an intercept message and a SIP code); Wolters Kluwer Reply Comments at 2 (advocating for use of cause codes).

<sup>138</sup> See, e.g., Ad Hoc Comments at 10, 18; CCA Comments at 7; Encore Comments at 4; NORC Comments at 10; PACE Comments at 3.

these codes ensures that the notification is immediate.<sup>139</sup> By establishing requirements for specific SIP and ISUP codes, we ensure, to the extent possible, that callers receive uniform responses. By using the automated tools voice service providers already have and use for other purposes, we also ensure that these requirements are easy to implement across the network.

59. Some commenters ask that we require blocking voice service providers to include more information with the immediate notification, such as the reason the call was blocked, or a website or phone number for resolution.<sup>140</sup> While such information could be valuable to callers, it is available through other means.<sup>141</sup> Callers may obtain more information regarding the reasons their calls were blocked once they access a voice service provider's redress process, and a voice service provider must make its contact information available on its website.<sup>142</sup>

60. Some commenters propose use of an intercept message for notification in addition to a SIP or ISUP code.<sup>143</sup> To reduce the burden on voice service providers, we decline to require multiple methods of notification. Further, because SIP and ISUP codes are in standard use throughout the network, they are the best solution for immediate notification at this time. One commenter raises concerns with "a unique tone or intercept message" requirement, noting it would necessitate "significant modifications across thousands of legacy switches and multiple switch types."<sup>144</sup> It is precisely to avoid such issues that we repurpose an existing ISUP code and do not require a unique notification or intercept message; switches should already be configured to handle the selected ISUP code. TDM-based voice service providers need only ensure that their networks are configured to make use of the appropriate ISUP code and ensure that SIP codes are properly translated at the edge of their network.

61. *Compliance Date.* Finally, we give voice service providers until January 1, 2022, approximately 12 months after the adoption of this *Order*, to comply with our immediate notification requirements. We recognize that voice service providers are bearing costs as they work to implement STIR/SHAKEN in the IP portions of their networks, which the Commission has required by June 30, 2021.<sup>145</sup> Any incremental increase in burden could introduce challenges in compliance for some voice service providers. By delaying the compliance date of these requirements until January 1, 2022, which is approximately 12 months from the adoption of this *Order*, or six months from the STIR/SHAKEN implementation compliance date, we ensure that voice service providers can make the necessary software upgrades without diverting resources from STIR/SHAKEN implementation.

## 2. Blocked Calls List

62. The TRACED Act directs us to ensure that consumers, as well as callers, have transparency and effective redress when wanted calls are blocked using robocall blocking services provided on an opt-out or opt-in basis pursuant to our *Call Blocking Declaratory Ruling and Further*

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<sup>139</sup> See, e.g., CCA Comments at 5-6; INCOMPAS Comments at 12; NAFCU Comments at 2; Noble Systems Comments at 26; PACE Comments at 3; RingCentral Comments at 3-5; Securus Comments at 2, 8-9; Telnix Comments at 2; Twilio Comments at 5.

<sup>140</sup> See, e.g., ABA et al. Comments at 12; Encore Comments at 2-3.

<sup>141</sup> For example, the specification for SIP Code 608 requires inclusion of an email, URL, address, or telephone number as part of the standard, which ensures that properly configured callers can access redress. *SIP Code 608 Specification*.

<sup>142</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7634-35, paras. 54-57.

<sup>143</sup> See, e.g., Noble Systems Comments at 27; PACE Comments at 3.

<sup>144</sup> Lumen Technologies Reply Comments at 5-7.

<sup>145</sup> *First STIR/SHAKEN Order*, 35 FCC Rcd at 3252, para. 25.

*Notice.*<sup>146</sup> Consumers may opt out of blocking services at any time as a form of redress, and we already make clear that voice service providers that use blocking programs should disclose to consumers the types of calls they seek to block and make clear that some wanted calls may be blocked.<sup>147</sup> While a consumer knows that wanted calls may be blocked, consumers may not be able to determine whether blocking has occurred. We thus require any terminating voice service provider that blocks calls on an opt-in or opt-out basis to provide, on the request of the subscriber to a particular number, a list of all calls intended for that number that the voice service provider or its designee has blocked. The list should contain the calling number and the date and time of the call. Consistent with the TRACED Act, this list must be provided at no additional charge to the consumer.<sup>148</sup> To ensure that this information is provided to the subscriber in a timely manner, we require that the terminating voice service provider provide this list within three business days of receiving the request. To avoid unwieldy recordkeeping requirements, we limit the reporting requirement to calls blocked in no fewer than the 28 days prior to the request.

63. A blocked calls list has broad support in the record, both from callers and voice service providers.<sup>149</sup> Commenters indicate that the list will be particularly beneficial to consumers who want further information when deciding whether to opt out of blocking services or inform their voice service provider about blocking errors.<sup>150</sup> Similarly, the list will enable consumers to contact callers and determine why a call was blocked.<sup>151</sup> Securus notes that a blocked calls list would be of particular value in the inmate calling context where the caller is limited in their ability to access redress.<sup>152</sup>

64. We recognize that some commenters question the value of blocked call lists,<sup>153</sup> and others are concerned about the burden.<sup>154</sup> Nevertheless, the TRACED Act directs us specifically to provide “transparency and effective redress” to consumers when calls are blocked on an opt-out or opt-in basis pursuant to our *Call Blocking Declaratory Ruling and Further Notice*.<sup>155</sup> We find that blocked calls lists satisfy this mandate and the record reveals no reasonable alternatives.

65. *Recipients and Content of List.* We require that the blocked calls list include calls blocked on an opt-out or opt-in basis and that the voice service provider make it available to the subscriber to the called number. The list need only contain calls blocked with consumer consent because consumers can review these calls and make a different choice. This is also consistent with the scope of transparency and effective redress requirement in section 10(b) of the TRACED Act, which applies to “robocall blocking services provided on an opt-out or opt-in basis.”<sup>156</sup> We limit the scope of parties who can request and receive blocked calls lists to the subscriber because callers already have transparency and

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<sup>146</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)).

<sup>147</sup> *Call Blocking Declaratory Ruling and Further Notice*, 34 FCC Rcd at 4886-87, para. 33.

<sup>148</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)(B)).

<sup>149</sup> See, e.g., Ad Hoc Comments at 21; AT&T Comments at 13; Comcast Comments at 2, 8; Noble Systems Comments at 40; NTCA Comments at 4-5; Securus Comments at 9; Twilio Comments at 5; AICC Reply Comments at 7-8.

<sup>150</sup> See, e.g., Ad Hoc Comments at 21; Comcast Comments at 8.

<sup>151</sup> See, e.g., Ad Hoc Comments at 21; Comcast Comments at 8.

<sup>152</sup> Securus Comments at 9.

<sup>153</sup> See, e.g., CTIA Comments at 18; Insights Association Comments at 2; Numeracle Comments at 8; WTA Comments at 13-14.

<sup>154</sup> See, e.g., Competitive Carriers Comments at 6; Numeracle Comments at 8; WTA Comments at 14-15.

<sup>155</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)(1)(A)).

<sup>156</sup> *Id.* § 10(b) (codified at 47 U.S.C. § 227(j)(1)).

effective redress through our other requirements and doing so avoids the additional burden on voice service providers of furnishing lists to a potentially large group of others.<sup>157</sup>

66. We therefore disagree with commenters that encourage us to expand the scope of the list, either in content or recipients. First, we decline to include labeling concerns<sup>158</sup> or calls blocked without consumer consent.<sup>159</sup> The record reveals little, if any, benefit to consumers from including such calls on this list. Unlike blocked calls, consumers receive labeled calls and they can review them simply by looking at their phone's list of missed calls. Consumers can therefore inform their voice service provider of erroneous labels. For calls blocked without consumer consent, it is unclear what value such a list would provide. The blocking in that case does not involve consumer opt out or opt in, and therefore a consumer can take no immediate action based on this information. What is more, the record is bereft of evidence that consumers would want to unblock calls that are highly likely to be fraudulent or otherwise illegal. The record also shows that including network-based blocked calls on lists would significantly increase the burdens that could deter voice service providers from network blocking.<sup>160</sup> And section 10(b) of the TRACED Act does not include in its transparency requirements network-based blocking.

67. *Flexibility in Blocked Calls List Mechanism.* Consistent with the call for flexibility in the record, we decline to mandate how voice service providers give subscribers this list. We instead leave the method of providing the information to the judgment of the voice service provider.<sup>161</sup> For example, voice service providers could use a web portal and those using a third-party blocking service may rely on that third party to provide this list. The ultimate responsibility falls to the voice service provider. Should the third party fail to provide the list consistent with the requirements we adopt herein, the voice service provider will be liable for this failure.<sup>162</sup>

68. *Time for Response and Length of Recordkeeping Requirement.* We require terminating voice service providers to respond to subscribers' requests for blocked calls lists within three business days of receiving such a request. In establishing this requirement, we balance the burden to the voice service provider against the needs of the subscriber. We received no comments on the appropriate length of a recordkeeping requirement or a reasonable time in which voice service providers should respond to requests from consumers.<sup>163</sup> In the absence of such a record, we determine that three business days is sufficient time for a voice service provider to compile such a list, even if they are using a manual process. It also ensures that the subscriber, who may be requesting the list because they suspect important calls may not be reaching them, has access to this information in a timely manner.

69. To meet this obligation and for purposes of this rule, voice service providers must retain records of blocked calls for a minimum of four weeks or 28 days.<sup>164</sup> This recognizes the need for

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<sup>157</sup> See, e.g., AT&T Comments at 14-15; Comcast Comments at 8-9.

<sup>158</sup> See, e.g., NTCA Comments at 4-5; Twilio Comments at 5. For example, caller concerns could include labels the caller believes are inaccurate, resulting in low consumer-answer rates.

<sup>159</sup> See, e.g., Ad Hoc Comments at 21.

<sup>160</sup> See, e.g., AT&T Comments at 14-15; Comcast Comments at 8-9; T-Mobile Reply Comments at 8-9.

<sup>161</sup> See, e.g., Comcast Comments at 2, 8.

<sup>162</sup> See 47 U.S.C. § 217.

<sup>163</sup> WTA did note that “[o]ne WTA member estimates that it would take a staff member two hours per requesting customer every two-to-three weeks to query its system for calls to the specific customer, examine the details of each call to determine if it was blocked, and then record the information in a report.” WTA Comments at 14. They further noted that provision of such a list may require voice service providers to contract with a vendor to provide a custom database. *Id.* at 14-15.

<sup>164</sup> Our 28-day retention requirement also aligns with technological limitations. WTA notes that a “typical switch is likely to retain the call information in the foregoing paragraph for two-to-four weeks.” WTA Comments at 14.

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subscribers to receive meaningful information and seeks to avoid overly burdening voice service providers with unnecessary recordkeeping requirements. Twenty-eight days provides the information subscribers need and imposes a reasonable burden on voice service providers.

70. Finally, we note that this requirement implicates the Paperwork Reduction Act, as indicated in the Final Regulatory Flexibility Act, contained in Appendix C.

### 3. Status of Call Blocking Dispute Resolution

71. To ensure that callers can track dispute status and to increase transparency consistent with the TRACED Act, we enhance our existing redress requirements to require voice service providers to respond to blocking disputes they receive through their established point of contact by providing a status update to the party that filed the dispute within 24 hours.<sup>165</sup> In doing so, we do not modify our requirement that disputes are resolved in a reasonable amount of time and at no cost to the caller, if the complaint is made in good faith.<sup>166</sup> Instead, we recognize both that callers need speedy resolution of disputes<sup>167</sup> and that voice service providers may need additional time to resolve disputes in certain instances.<sup>168</sup> By requiring a status update within 24 hours, we ensure that callers have the information they need while also granting voice service providers flexibility.

72. We find persuasive commenters' concerns regarding the associated burdens and need for resolution time.<sup>169</sup> The time necessary to resolve a dispute depends on the facts of the dispute and the resources of the voice service provider. Overly prescriptive requirements could leave consumers unprotected because voice service providers may be unable to offer blocking services that comply. We are especially concerned that smaller voice service providers may be unable to meet stricter requirements, placing them at a significant disadvantage and leaving their customers unprotected. We, therefore, decline to adopt the stricter, uniform timelines for resolution some commenters request.<sup>170</sup> Instead, by

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Where switches retain information for four weeks, the voice service provider may only need to query the switch when it receives a consumer request. Where the switch retains information for only two weeks, the voice service provider can establish a system to execute this query routinely and save the necessary information.

<sup>165</sup> In the *Call Blocking Order and Further Notice*, we required that all voice service providers that block calls provide a single point of contact for handling blocking disputes. *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7634-35, paras. 54-57.

<sup>166</sup> Though the *Call Blocking Order and Further Notice* specified that complaints be made in good faith, the rules we adopted did not include that caveat. 47 CFR § 64.1200(k)(8); *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7634-35, para. 55. We take the opportunity to correct that omission here and, in revising our rules, include this caveat.

<sup>167</sup> See, e.g., ABA et al. Comments at 4, 11, 16; Ad Hoc Comments at 6-8; Encore Comments at 5; Enterprise Communications Advocacy Coalition Comments at 2-3 (ECAC); Insights Association at 3; NAFCU Comments at 4-5; Securus Comments at 2, 7-8; Telnix Comments at 2; Twilio Comments at 4-5.

<sup>168</sup> See, e.g., Comcast Comments at 6-7; Electronic Transactions Association Comments at 2-3 (ETA); INCOMPAS Comments at 12-13; Neustar Comments at 4-5; T-Mobile Comments at 6-7; TNS Comments at 5; VON Comments at 3; WTA Comments at 12-13.

<sup>169</sup> See, e.g., Comcast Comments at 6-7; ETA Comments at 3; INCOMPAS Comments at 12-13; Neustar Comments at 4-5; T-Mobile Comments at 6-7; TNS Comments at 5; VON Comments at 3; WTA Comments at 12-13; CTIA Reply Comments at 12-13; NCTA Reply Comments at 7.

<sup>170</sup> See, e.g., ABA et al. Comments at 4, 11, 16; Ad Hoc Comments at 6-8; Encore Comments at 5; ECAC Comments at 2-3; Insights Association Comments at 3; NAFCU Comments at 4-5; Securus Comments at 2, 7-8; Telnix Comments at 2; Twilio Comments at 4-5; ABA et al. Reply Comments at 7-8; Ad Hoc Reply Comments at 3; AICC Reply Comments at 5-6; PACE Reply Comments at 2; Securus Reply Comments at 5-6; SiriusXM Reply Comments at 6-7; Trade Associations *Ex Parte* at 1.

requiring a status update rather than final resolution within 24 hours, we take a reasonable middle ground between the needs of callers that ask for rapid redress<sup>171</sup> and voice service providers that ask for flexibility and extended time for resolution.<sup>172</sup>

73. We similarly decline to adopt an expedited process for resolving blocking disputes when voice service providers do not resolve complaints as quickly as callers would like.<sup>173</sup> Callers may, of course, use our existing mechanisms, such as filing a complaint or a petition. Finally, we decline to adopt data reporting and recordkeeping requirements regarding blocking complaints, as Securus asks.<sup>174</sup> A number of factors could impact dispute resolution timelines, making it difficult if not impossible for a data collection requirement to fully capture the issue. We encourage callers to collect such information themselves if they feel that their call blocking disputes are not being resolved in a timely manner.

#### 4. Point of Contact for Verifying Call Authenticity

74. We require that the point of contact terminating voice service providers have established to take blocking disputes also handle contacts from callers that are adversely affected by information provided by caller ID authentication seeking to verify the authenticity of their calls.<sup>175</sup> Because our rules already require blocking voice service providers to have a point of contact, we expect that most terminating voice service providers already have one in place.<sup>176</sup> Any terminating voice service provider that does not block calls, and takes into account attestation information in determining how to deliver calls, must provide a point of contact to receive caller complaints regarding caller ID authentication consistent with the rules we established in the *Call Blocking Order and Further Notice* and this *Order*.<sup>177</sup>

75. Section 4(c)(1)(C) of the TRACED Act requires us to establish a mechanism for callers that are adversely affected by information provided by the caller ID authentication framework to verify the authenticity of the calls.<sup>178</sup> This will provide callers with a mechanism for redress where, for example, calls are blocked due to an incorrect attestation. We specify that the point of contact is not required to resolve all disputes about attestation level and, in fact, is not properly placed to do so; the terminating voice service provider is not the entity that typically attests to caller ID.<sup>179</sup> Instead, the terminating voice

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<sup>171</sup> Many commenting callers asked for redress within 24 hours. *See, e.g.*, ABA et al. Comments at 4, 11, 16; ECAC Comments at 2-3; Encore Comments at 5; NAFCU Comments at 5; Securus Comments at 7-8; AICC Reply Comments at 5-6; PACE Reply Comments at 2; SiriusXM Reply Comments at 6-7.

<sup>172</sup> Comcast Comments at 6-7; ETA Comments at 3; INCOMPAS Comments at 12-13; Neustar Comments at 4-5; T-Mobile Comments at 6-7; TNS Comments at 5; VON Comments at 3; WTA Comments at 12-13; CTIA Reply Comments at 12-13; First Orion Reply Comments at 2-3; NCTA Reply Comments at 7.

<sup>173</sup> *See, e.g.*, Securus Reply Comments at 6-7.

<sup>174</sup> Securus Reply Comments at 6.

<sup>175</sup> Where a caller cannot readily identify the terminating voice service provider, we encourage it to work with its originating voice service provider to identify the appropriate contact. We believe that originating voice service providers have sufficient incentive to work with callers, who are their customers, to ensure that these issues are appropriately handled without adopting a specific requirement that they do so.

<sup>176</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7634-35, paras. 54-57.

<sup>177</sup> Specifically, the voice service provider must designate a single point of contact and publish this information clearly and conspicuously on its public-facing website. Blocking voice service providers must also investigate and resolve any disputes within a reasonable amount of time and at no cost to the caller, so long as the complaint is made in good faith. *Id.* We expect voice service providers to provide a status update or resolution to callers within 24 hours of receiving a dispute.

<sup>178</sup> TRACED Act § 4(c)(1)(C) (codified at 47 U.S.C. § 227b(c)(1)(C)).

<sup>179</sup> Adverse effects stem from blocking or other handling of the call, not simply the level of attestation given to a particular call. If a call with B- or C-level attestation nonetheless reaches the intended recipient, and the terminating

(continued...)

service provider should consider whether the decision in question would be appropriate if the same calls were to receive a higher level of attestation and treat future calls accordingly unless circumstances change.<sup>180</sup>

76. Our decision to require the same point of contact to handle blocking disputes and “adverse effects” from caller ID authentication information streamlines the process for both voice service providers and callers. We expect that blocking and authentication concerns will often be interrelated, such as when the adverse effect is blocking. Only the terminating voice service provider can determine whether caller ID authentication was a significant factor in its decision and therefore whether there is a need to adjust its analytics or otherwise change its call-delivery practices. Even when the adverse effects from caller ID authentication and blocking are not directly related, by requiring the same point of contact to receive complaints of both issues, we ensure that a caller only needs to go to one contact at a given terminating voice service provider in order to resolve either issue.

77. Because the TRACED Act requirement seeks to address “adverse effects,” not simply incorrect caller ID authentication information, we find the terminating voice service provider is in the best position to address callers’ concerns. The terminating voice service provider takes the action that represents the adverse effect, such as blocking. Originating voice service providers, by contrast, are not so positioned because they cannot ensure that attestation information reaches the terminating voice service provider. This is because STIR/SHAKEN does not work on TDM networks. Even once voice service providers implement STIR/SHAKEN, some voice service providers may thus be unable to sign calls and some calls may drop the initial attestation when they transit on TDM. At least one commenter supports the approach we adopt here, noting that only the terminating voice service provider “will know why the entity’s calls are being blocked and the extent and reasons why any caller ID authentication information is wholly or partially responsible for such blocking.”<sup>181</sup>

78. Neustar points to the availability of commercial solutions outside of the STIR/SHAKEN framework and states that, where those solutions are not available, the caller should work with its originating voice service provider.<sup>182</sup> The industry has not yet settled on a single, clear approach to situations where STIR/SHAKEN is not available, such as when calls are transmitted over TDM networks.<sup>183</sup> Absent such consensus, we decline to tie our process to these solutions. Further, until STIR/SHAKEN is deployed throughout all networks with no risks that the attestation information will be lost, the originating voice service provider cannot ensure that any attestation information it provides will reach the terminating voice service provider and be incorporated into decisions regarding call delivery.

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voice service provider does not display attestation information directly to the caller, there is no adverse effect even when the recipient elects not to answer the call. This is true even where the caller believes its calls should receive A-level attestation. Where terminating voice service providers choose to display attestation information to consumers, however, it is reasonable to assume that this information impacts a consumer’s choice not to answer a call. In such cases, there may be an adverse effect that would call for a remedy under our rules and the TRACED Act.

<sup>180</sup> For example, a voice service provider blocking calls on an opt-out basis that it deems to be unwanted may learn that non-spoofed calls received C-level attestation, but may find that the other analytics, taken together, still indicate that the call is highly likely to be unwanted and subsequently block the call. In such a case, the voice service provider should consider whether the call would be blocked even if it had A-level attestation and make a decision based on that scenario. Attestation level may not be dispositive in many instances.

<sup>181</sup> WTA Comments at 7.

<sup>182</sup> See, e.g., Neustar Comments at 2-3.

<sup>183</sup> See *Second STIR/SHAKEN Order* at 15-16, paras. 31-32.

## 5. No Redress Requirements for Labeling

79. We decline to extend redress mechanisms to erroneous call labeling at this time. Rather, we encourage voice service providers and their analytics partners to work in good faith with callers to avoid erroneous labeling so consumers can better decide whether to answer a call.

80. We agree with commenters that urge us to not extend redress requirements to labeling.<sup>184</sup> Some commenters point to the fact that, unlike blocking, the call reaches the called party, who can see the label and decide whether to answer.<sup>185</sup> While it is true that consumers are less likely to answer calls with certain labels, many consumers may also hesitate to answer calls from unknown numbers generally.<sup>186</sup> Additionally, in many instances where a consumer does not answer a call because of the information in the label, the caller can leave a message, which allows the consumer a second opportunity to determine whether and how to respond to the call. Commenters also note that the issues in call labeling are more nuanced than in blocking, and that whether a call label is “erroneous” is often a question of a difference in the perceived value of the call between call originators and call recipients.<sup>187</sup>

81. In reaching this conclusion, we disagree with commenters that call for the Commission to place restrictions or impose redress requirements on labeling and decline to do so at this time.<sup>188</sup> We disagree that labeling is equivalent to blocking, as some commenters argue.<sup>189</sup> While labeling may lead to a consumer not answering a call, callers still have the opportunity to leave a voicemail or use other means of contact, exactly as they would in any other instance where a call went unanswered. Some commenters argue that voicemail is not always available.<sup>190</sup> While true, this is not unique to situations where the consumer elects not to answer due to a label and does not, therefore, warrant special treatment. We further disagree with commenters that argue section 4(c) of the TRACED Act requires us to address labeling.<sup>191</sup> The relevant provisions of the TRACED Act are clearly focused on caller ID authentication information which, while it may inform labeling, is not the same issue.<sup>192</sup> Call labeling has been available and in use for several years; if Congress intended us to exercise jurisdiction over call labeling writ large, it would have made that clear. We encourage callers and voice service providers to work together to ensure that labels are as accurate as possible, but decline to take further action at this time.

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<sup>184</sup> See, e.g., CTIA Comments at 17-18; First Orion Comments at 4; Noble Systems Comments at 41-43; RingCentral Comments at 3; T-Mobile Comments at 5-6; TNS Comments at 6-7; First Orion Reply Comments at 5-6; Lumen Technologies Reply Comments at 5; T-Mobile Reply Comments at 2, 9.

<sup>185</sup> See, e.g., First Orion Comments at 4; T-Mobile Comments at 6; First Orion Reply Comments at 5-6.

<sup>186</sup> A survey by Zipwhip, for example, found that 97% of respondents to a survey of 520 Americans age 18 and over rejected or ignored calls from businesses or unknown numbers. Business Wire, *Zipwhip Report Finds 97% of Consumers Reject Calls from Businesses and Unknown Numbers* (Aug. 20, 2019), <https://www.businesswire.com/news/home/20190820005264/en/Zipwhip-Report-Finds-97-Consumers-Reject-Calls>.

<sup>187</sup> See, e.g., TNS Comments at 7.

<sup>188</sup> See, e.g., ABA et al. Comments at 5, 14, 19-20; ECAC Comments at 2-3; NTCA Comments at 2-3, 5; Twilio Comments at 3, 5-6; ABA et al. Reply Comments at 9-10; AICC Reply Comments at 4-5; CCA Comments at 2, 9; SiriusXM Reply Comments at 7.

<sup>189</sup> See, e.g., ABA et al. Comments at 19; CCA Comments at 9; Twilio Comments at 3.

<sup>190</sup> See, e.g., AICC Reply Comments at 5.

<sup>191</sup> See, e.g., CCA Comment at 9.

<sup>192</sup> See TRACED Act § 4(c) (codified at 47 U.S.C. § 227b(c)).

## 6. Legal Authority

82. Our authority for the requirements we adopt in this section stems from sections 10(b) and 4(c)(1)(C) of the TRACED Act, along with sections 201(b) and 202(a) of the Communications Act.<sup>193</sup> Section 10(b) of the TRACED Act directs us to ensure that both consumers and callers are provided with transparency and effective redress when calls are blocked on an opt-in or opt-out basis.<sup>194</sup> We find that each of the requirements we adopt above is important to ensure that either callers or consumers are provided with transparency and can access redress. Taken together, the immediate notification of blocked calls requirement and the blocked calls list provide transparency to both callers and consumers, while our dispute resolution timing requirement provides additional transparency to the existing redress process. In section 4(c)(1)(C) of the TRACED Act, we find specific authority for our requirement that the point of contact handle situations where a caller that is adversely affected by caller ID authentication information seeks to verify the authenticity of its calls. This provision explicitly directs us to establish such a process. Though sections 10(b) and 4(c)(1)(C) of the TRACED Act provide us with legal authority, we also find legal authority for these rules as applied to common carriers under section 201(b) of the Communications Act. Sections 201(b) and 202(a) of the Communications Act provide us with extensive authority to regulate interstate common carriers and cover the requirements we adopt today as to such carriers.

### D. Other Issues and Proposals

83. *Safe Harbor for Misidentification of the Level of Trust.* At this time, we decline to extend the safe harbor to cover the inadvertent or unintended misidentification of the level of trust for particular calls.<sup>195</sup> We are not aware of any sources of liability specifically for the misidentification of the level of trust, including any liability stemming from non-federal sources. Though some commenters support such a safe harbor, none provide details on current sources of liability.<sup>196</sup> We make clear, however, that we will consider such a safe harbor in the future should parties bring such sources of liability to our attention. In reaching this conclusion, we find that we have met the TRACED Act's direction to provide such a safe harbor through our provision of a safe harbor for blocking, which is the only potential source of liability of which we are aware.<sup>197</sup>

84. *TRACED Act Section 7.* We decline to take further action under section 7 of the TRACED Act at this time, but make clear that the Commission may act in the future, as circumstances warrant. We believe that, at this time, the best approach to protecting consumers from unwanted calls from unauthenticated numbers is through blocking programs that are consistent with the safe harbor we adopted in the *Call Blocking Order and Further Notice*.<sup>198</sup> We agree with commenters that urge us to focus on STIR/SHAKEN deployment and related technology, rather than authorizing additional blocking.<sup>199</sup> When these technologies are broadly available, we may consider additional action. We

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<sup>193</sup> We received no comments addressing our legal authority to adopt these requirements.

<sup>194</sup> TRACED Act § 10(b) (codified at 47 U.S.C. § 227(j)).

<sup>195</sup> *Id.* § 4(c)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)).

<sup>196</sup> *See, e.g.*, Competitive Carriers Comments at 3; CTIA Comments at 12-13; NCTA Comments at 3; NCTA Reply Comments at 3.

<sup>197</sup> Section 4(c)(1)(B) directs us to establish a safe harbor from "liability for the unintended or inadvertent blocking of calls or the unintended or inadvertent misidentification of the level of trust for individual calls." TRACED Act § 4(c)(1)(B) (codified at 47 U.S.C. § 227b(c)(1)(B)). We interpret this language to allow us to rely on our blocking safe harbor.

<sup>198</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7625-27, paras. 25-34.

<sup>199</sup> *See, e.g.*, ACA Connects Comments at 2, 6-8; Competitive Carriers Comments at 3-5; INCOMPAS Comments at 7-10; NCTA Comments at 5; Noble Systems Comments at 38-40; Numeracle Comments at 5-6; WTA Comments at 7-9.

conclude that we have met our statutory obligation under section 7 by seeking comment on additional steps the Commission could take to provide this protection.<sup>200</sup>

85. *Other Section 4(c) Issues.* We adopt the tentative conclusions proposed in the *Call Blocking Order and Further Notice* with regard to section 4(c) of the TRACED Act.<sup>201</sup> Specifically, we find that we have fully implemented section 4(c)(1), except to the extent that we adopt new rules elsewhere in this *Order*.<sup>202</sup> In reaching this conclusion, we agree with commenters that support our decision to require that caller ID authentication information be incorporated into analytics, as well as those that urge us to refrain from authorizing blocking solely based on STIR/SHAKEN.<sup>203</sup> We similarly conclude that, in establishing the safe harbor adopted in the *Call Blocking Order and Further Notice* and expanded upon elsewhere in this *Order*, we have properly taken into account the considerations listed in section 4(c)(2) of the TRACED Act.<sup>204</sup>

#### IV. PROCEDURAL MATTERS

86. *Final Regulatory Flexibility Analysis.* As required by the Regulatory Flexibility Act of 1980, as amended (RFA),<sup>205</sup> the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) relating to this Report and Order. The FRFA is set forth in Appendix C.

87. *Paperwork Reduction Act Analysis.* The Report and Order contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA).<sup>206</sup> It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA.<sup>207</sup> OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, we note that pursuant to the Small Business Paperwork Relief Act of 2002,<sup>208</sup> we previously sought specific comment

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<sup>200</sup> TRACED Act § 7; *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7642-43, paras. 88-90. We note that TRACED Act section 7(b) provides a list of matters we should consider when we promulgate rules. Because we are not promulgating rules at this time, we have not evaluated our actions based on those considerations. Should we adopt rules in the future, we will take those matters into consideration. See TRACED Act § 7(b).

<sup>201</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7641-42, paras. 81-87.

<sup>202</sup> *Id.* at 7641, para. 82; see also TRACED Act § 4(c)(1) (codified at 47 U.S.C. § 227b(c)(1)).

<sup>203</sup> See, e.g., AT&T Comments at 6 (agreeing the Commission should not permit blocking based solely on STIR/SHAKEN); INCOMPAS Comments at 4 (declining to support further safe harbor expansion, noting that blocking based on caller ID authentication information is premature); NCTA Comments at 4 (arguing that the Commission should not permit blocking based “in whole” on caller ID authentication information); Securus Comments at 2 (urging the Commission to not permit blocking based solely on caller ID verification information); VON Comments at 1-2 (stating that, at this time, the Commission should not permit blocking based solely on caller ID authentication information); WTA Comments at 6 (opposing blocking based solely on caller ID authentication information); AICC Reply Comments at 8 (agreeing that incorporation of caller ID authentication into reasonable analytics is the correct approach); USTelecom Reply Comments at 4 (urging us not to authorize blocking solely based on STIR/SHAKEN).

<sup>204</sup> *Call Blocking Order and Further Notice*, 35 FCC Rcd at 7642, para. 87; see also TRACED Act § 4(c)(2) (codified at 47 U.S.C. § 227b(c)(2)). We did not receive comments directly addressing our conclusion that we had properly considered these factors.

<sup>205</sup> 5 U.S.C. § 601 et seq.

<sup>206</sup> Pub. L. No. 104-13, 109 Stat 163 (1995) (codified at 44 U.S.C. §§ 3501-3520).

<sup>207</sup> 44 U.S.C. § 3507(d).

<sup>208</sup> Pub. L. No. 107-198, 116 Stat. 729 (2002); 44 U.S.C. § 3506(c)(4).

on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees.<sup>209</sup>

88. In this document, we have assessed the effects of our requirements that voice service providers report to the Commission following a notification that certain traffic appears to be unlawful and that voice service providers that block calls disclose to consumers a list of blocked calls upon request. We find the requirement to report to the Commission is necessary to ensure that voice service providers are taking proper steps to prevent illegal calls from reaching consumers and to avoid the risk of bad actor voice service providers shielding bad actor callers. We find that the blocked calls list is necessary to ensure consumers receive transparency and effective redress. Further, our decisions to allow flexibility in the method for providing the list and to limit the scope of the list appropriately balance small business' concerns.

89. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs that this rule is non-major under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

90. *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](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice).

## V. ORDERING CLAUSES

91. **IT IS ORDERED** that, pursuant to sections 4(i), 201, 202, 217, 227, 227b, 251(e), 303(r), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 201, 202, 217, 227, 227b, 251(e), 303(r), 403, this *Fourth Report and Order* **IS ADOPTED**.

92. **IT IS FURTHER ORDERED** that the rule amendments set forth in Appendix A, with the exception of new sections 64.1200(k)(9) and (10), and 64.1200(n)(2), **SHALL BE EFFECTIVE** 30 days after their publication in the Federal Register.

93. **IT IS FURTHER ORDERED** that new section 64.1200(k)(9) **SHALL BE EFFECTIVE** on January 1, 2022.

94. **IT IS FURTHER ORDERED** that new section 64.1200(k)(10) and 64.1200(n)(2) **SHALL BE EFFECTIVE** 30 days after the Commission's publication of a notice in the *Federal Register*, which will announce approval of portions of the rules requiring approval by OMB under the PRA.

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

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<sup>209</sup> *Call Blocking Order and Further Notice*, 35 FCC Red at 7668-77, Appx. E.

96. **IT IS FURTHER ORDERED** that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, **SHALL SEND** a copy of this *Fourth Report and Order*, including the Regulatory Flexibility Analysis, 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 0 and Part 64 of Title 47 of the Code of Federal Regulations as follows:

#### PART 0—COMMISSION ORGANIZATION

##### Subpart A—Organization

1. Amend §0.111(a) by adding paragraph (27) to read:

(27) Identify suspected illegal calls and provide written notice to voice service providers. The Enforcement Bureau shall: (1) identify with as much particularity as possible the suspected traffic; (2) cite the statutory or regulatory provisions the suspected traffic appears to violate; (3) provide the basis for the Enforcement Bureau's reasonable belief that the identified traffic is unlawful, including any relevant nonconfidential evidence from credible sources such as the industry traceback consortium or law enforcement agencies; and (4) direct the voice service provider receiving the notice that it must comply with section 64.1200(n)(2) of the Commission's rules.

#### PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

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

1. Amend § 64.1200(k) by revising paragraphs (5), (6), and (8) and adding paragraphs (9), (10), and (11) to read:

(5) A provider may not block a voice call under paragraph (k)(1) through (4) or (11) of this section if the call is an emergency call placed to 911.

(6) A provider may not block a voice call under paragraph (k)(1) through (4) or (11) 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.

(8) Each terminating provider that blocks calls pursuant to this section or utilizes caller ID authentication information in determining how to deliver calls must provide a single point of contact, readily available on the terminating provider's public-facing website, for receiving call blocking error complaints and verifying the authenticity of the calls of a calling party that is adversely affected by information provided by caller ID authentication. The terminating provider must resolve disputes pertaining to caller ID authentication information within a reasonable time and, at a minimum, provide a status update within 24 hours. When a caller makes a credible claim of erroneous blocking and the terminating provider determines that the calls should not have been blocked, or the call delivery decision is not appropriate, the terminating provider must promptly cease the call treatment for that number unless circumstances change. The terminating provider may not impose any charge on callers for reporting, investigating, or resolving either category of complaints, so long as the complaint is made in good faith.

(9) Any terminating provider that blocks calls, either itself or through a third-party blocking service, must immediately return, and all voice service providers in the call path must transmit, an appropriate response code to the origination point of the call. For purposes of this rule, an appropriate response code is:

(i) In the case of a call terminating on an IP network, the use of Session Initiation Protocol (SIP) code 607 or 608;

(ii) In the case of a call terminating on a non-IP network, the use of ISDN User Part (ISUP) code 21 with the cause location “user”;

(iii) In the case of a code transmitting from an IP network to a non-IP network, SIP codes 607 and 608 must map to ISUP code 21; and

(iv) In the case of a code transmitting from a non-IP network to an IP network, ISUP code 21 must map to SIP code 603, 607, or 608 where the cause location is “user.”

(10) Any terminating provider that blocks calls on an opt-out or opt-in basis, either itself or through a third-party blocking service, must provide, at the request of the subscriber to a number, at no additional charge and within 3 business days of such a request, a list of calls to that number, including the date and time of the call and the calling number, that the terminating provider or its designee blocked within the 28 days prior to the request.

(11) A terminating provider may block calls without liability under the Communications Act and the Commission’s rules, without giving consumers the opportunity to opt out of such blocking, so long as:

(i) the provider reasonably determines, based on reasonable analytics that include consideration of caller ID authentication information where available, that calls are part of a particular call pattern that is highly likely to be illegal;

(ii) the provider manages its network-based blocking with human oversight and network monitoring sufficient to ensure that it blocks only calls that are highly likely to be illegal, which must include a process that reasonably determines that the particular call pattern is highly likely to be illegal before initiating blocking of calls that are part of that pattern;

(iii) the provider ceases blocking calls that are part of the call pattern as soon as the provider has actual knowledge that the blocked calls are likely lawful;

(iv) the provider discloses to consumers that it is engaging in such blocking;

(v) all analytics are applied in a non-discriminatory, competitively neutral manner;

(vi) blocking services are provided with no additional line-item charge to consumers; and

(vii) the terminating provider provides, without line item charge to the caller, the redress requirements set forth in subparagraphs 8 and 9.

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

(n) A voice service provider must:

(1) Respond fully and in a timely matter to all traceback requests from the Commission, civil law enforcement, criminal law enforcement, and the industry traceback consortium;

(2) Take steps to effectively mitigate illegal traffic when it receives actual written notice of such traffic from the Commission through its Enforcement Bureau. In providing notice, the Enforcement Bureau

shall identify with as much particularity as possible the suspected traffic; provide the basis for the Enforcement Bureau's reasonable belief that the identified traffic is unlawful; cite the statutory or regulatory provisions the suspected traffic appears to violate; and direct the voice service provider receiving the notice that it must comply with this section. Each notified provider must promptly investigate the identified traffic. Each notified provider must then promptly report the results of its investigation to the Enforcement Bureau, including any steps the provider has taken to effectively mitigate the identified traffic or an explanation as to why the provider has reasonably concluded that the identified calls were not illegal and what steps it took to reach that conclusion. Should the notified provider find that the traffic comes from an upstream provider with direct access to the U.S. Public Switched Telephone Network, that provider must promptly inform the Enforcement Bureau of the source of the traffic and, if possible, take steps to mitigate this traffic; and

(3) Take affirmative, effective measures to prevent new and renewing customers from using its network to originate illegal calls, including knowing its customers and exercising due diligence in ensuring that its services are not used to originate illegal traffic.

**APPENDIX B**  
**Comments Filed**

<u>Commenter</u>	<u>Abbreviation</u>
ACA Connects – America’s Communications Association*	ACA Connects
Ad Hoc Telecom Users Committee	Ad Hoc
<b>Alarm Industry Communications Committee</b>	<b>AICC</b>
American Bankers Association, ACA International, American Association of Healthcare Administrative Management, American Financial Services Association, Credit Union National Association, Consumer Bankers Association, Mortgage Bankers Association, National Association of Federally-Insured Credit Unions, National Retail Federation, Student Loan Servicing Alliance*	ABA et al.
AT&T Services, Inc	AT&T
Cloud Communications Alliance	CCA
Comcast Corporation	Comcast
CTIA*	CTIA
Electronic Transactions Association	ETA
Encore Capital Group	Encore
Enterprise Communications Advocacy Coalition	ECAC
First Orion Corp.*	First Orion
<b>FreedomWorks Foundation</b>	<b>FreedomWorks</b>
INCOMPAS*	INCOMPAS
Insights Association	Insights Association
<b>Lumen Technologies</b>	<b>Lumen Technologies</b>
National Association of Federally Insured Credit Unions	NAFCU
National Opinion Research Center*	NORC
NCTA – The Internet and Television Association*	NCTA
Noble Systems Corporation*	Noble Systems
NTCA – The Rural Broadband Association	NTCA
Numeracle, Inc.	Numeracle
Professional Association for Customer Engagement*	PACE
RingCentral, Inc.	RingCentral
Securus Technologies, LLC*	Securus
<b>SiriusXM Radio, Inc.</b>	<b>SiriusXM</b>
Telnyx LLC	Telnyx
T-Mobile USA, Inc.*	T-Mobile
Transaction Network Services, Inc.	TNS
Twilio Inc.	Twilio
USTelecom – The Broadband Association*	USTelecom
Voice on the Net Coalition	VON
Wolters Kluwer	Wolters Kluwer
WTA – Advocates of Rural Broadband	WTA
ZipDX LLC*	ZipDX

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

## APPENDIX C

## Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),<sup>1</sup> as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Declaratory Ruling and Further Notice*.<sup>2</sup> 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.<sup>3</sup>

**A. Need for, and Objectives of, the Order**

2. This *Report and Order* takes important steps in the fight against illegal robocalls by requiring voice service providers to take certain affirmative steps to prevent illegal calls.<sup>4</sup> Next, the *Report and Order* expands our safe harbor to include network-based blocking based on reasonable analytics that incorporate caller ID authentication information designed to identify calls that are highly likely to be illegal, if this blocking is managed with human oversight and network monitoring sufficient to ensure that blocking is working as intended.<sup>5</sup> The *Report and Order* then takes steps to implement the TRACED Act by ensuring that both callers and consumers are provided with transparency and effective redress.<sup>6</sup> Taken together, these steps will provide greater protection to consumers and increase trust in the telephone system while ensuring that consumers continue to receive the calls they want.

3. *Affirmative Obligations for Voice Service Providers.* The *Report and Order* establishes three affirmative obligations for all voice service providers.<sup>7</sup> First, all voice service providers must respond to traceback requests from the Commission, civil and criminal law enforcement, or the Industry Traceback Consortium (Consortium).<sup>8</sup> Second, all voice service providers must take steps to effectively mitigate suspected illegal traffic when notified of such traffic by the Commission through the Enforcement Bureau.<sup>9</sup> The notice from the Enforcement Bureau must be in writing and include specific information as detailed in the *Report and Order* and accompanying rules.<sup>10</sup> The notified voice service provider must investigate the suspected illegal traffic and report to the Enforcement Bureau regarding the results of that investigation, including whether the calls came from another voice service provider with direct access to the U.S. public switched telephone network, and any mitigation steps taken.<sup>11</sup> Finally, all

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<sup>1</sup> 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).

<sup>2</sup> *Advanced Methods to Target and Eliminate Unlawful Robocalls*, CG Docket No. 17-59, Third Report and Order, Order on Reconsideration, and Fourth Further Notice of Proposed Rulemaking, 35 FCC Rcd 7614 (2020) (*Order and Further Notice*).

<sup>3</sup> See 5 U.S.C. § 604.

<sup>4</sup> *Report and Order* at paras. 14-38.

<sup>5</sup> *Id.* at paras. 39-47.

<sup>6</sup> *Id.* at paras. 48-78.

<sup>7</sup> *Id.* at paras. 14-38.

<sup>8</sup> *Id.* at paras. 15-21.

<sup>9</sup> *Id.* at paras. 22-31.

<sup>10</sup> *Id.* at para. 23.

<sup>11</sup> *Id.* at paras. 23-24, 26.

voice service providers must take affirmative, effective steps to prevent new and renewing customers from using their network to originate illegal calls.<sup>12</sup>

4. *Expanding the Safe Harbor Based on Reasonable Analytics to Network-Based Blocking.* The *Report and Order* expands our safe harbor for blocking based on reasonable analytics, which must include caller ID authentication information where available, to cover certain network-based blocking, without consumer opt in or opt out.<sup>13</sup> The blocking must be designed to target only calls highly likely to be illegal and managed with sufficient human oversight and network monitoring to ensure that blocking is working as intended.<sup>14</sup> For purposes of the safe harbor, the *Report and Order* makes clear that voice service providers must have a process in place to reasonably determine that a call pattern is highly likely to be illegal prior to initiating blocking without consumer consent, and must cease blocking when the voice service provider learns that calls are likely lawful.<sup>15</sup>

5. *Enhanced Transparency and Redress.* The *Report and Order* establishes several requirements to implement the TRACED Act and ensure that both callers and consumers are provided with transparency and effective redress.<sup>16</sup> First, voice service providers that block calls must return to the caller an appropriate Session Initiation Protocol (SIP) or ISDN User Part (ISUP) code as appropriate.<sup>17</sup> In order to ensure that these codes reach the origination point of the call, all voice service providers must make all necessary software upgrades and configuration changes to ensure that these codes translate properly when a call moves between TDM and IP-based networks.<sup>18</sup> Providers must comply with this requirement by January 1, 2022.<sup>19</sup> Second, voice service providers that block on an opt-in or opt-out basis must provide, on the request of the subscriber to a particular number, a list of all calls intended for that number that the provider has blocked.<sup>20</sup> Voice service providers have three days to provide the list and the list should include all calls blocked on an opt-in or opt-out basis within the 28 days prior to the request.<sup>21</sup> Third, voice service providers that block calls must respond to any blocking dispute within 24 hours, either with a status update or a resolution.<sup>22</sup> This requirement builds on our requirements in the *Order and Further Notice* that voice service providers designate a single point of contact to handle blocking disputes. Finally, consistent with the TRACED Act, the *Report and Order* requires that the point of contact previously established to handle blocking disputes also be prepared to handle contacts from callers seeking to verify the authenticity of their calls.<sup>23</sup> Any terminating voice service provider that does not block calls, and takes into account attestation information in determining how to deliver calls,

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<sup>12</sup> *Id.* at paras. 32-36.

<sup>13</sup> *Id.* at paras. 39-47.

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at paras. 48-78.

<sup>17</sup> *Id.* at paras. 52-61. Specifically, Internet Protocol (IP) based voice service providers should return either SIP code 607 or 608, as appropriate. Time Division Multiplexing (TDM) voice service providers should use ISUP code 21.

<sup>18</sup> *Id.* at para. 57.

<sup>19</sup> *Id.* at para. 61.

<sup>20</sup> *Id.* at paras. 62-70.

<sup>21</sup> *Id.* at paras. 68-69.

<sup>22</sup> *Id.* at paras. 71-73.

<sup>23</sup> *Id.* at paras. 74-78.

must provide a point of contact to receive caller complaints regarding caller ID authentication consistent with the rules we established in the *Order and Further Notice*, as well as the *Report and Order*.<sup>24</sup>

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

6. In the *Order and Further Notice*, we solicited comments on how to minimize the economic impact of the new rules on small business. We received seven comments either directly referencing the IRFA or addressing concerns particular to small businesses.<sup>25</sup> Five of these comments addressed the affirmative obligations.<sup>26</sup> Six addressed small business concerns with transparency and redress requirements.<sup>27</sup> Three of these comments addressed issues raised in the *Order and Further Notice* that the *Report and Order* declines to move forward with, and therefore are not directly relevant to this analysis.<sup>28</sup>

7. *Affirmative Obligations.* The *Report and Order* requires voice service providers to respond to traceback, mitigate illegal traffic when notified of such traffic by the Commission, and take affirmative steps to prevent illegal calls from new and renewing customers.<sup>29</sup> Commenters, including smaller voice service providers, were generally supportive of these requirements.<sup>30</sup> Commenters did urge us to take certain steps to aid smaller voice service providers and ensure that these voice service providers have the information and resources to comply.

8. With regard to the requirement to respond to traceback requests from the Commission, law enforcement, and the Consortium, ACA Connects notes that many smaller voice service providers may be unfamiliar with the process and urges us to work with stakeholders to educate smaller voice service providers.<sup>31</sup> In the *Report and Order* we make clear to voice service providers that it is in their best interest to ensure that they have a clear point of contact at which to receive these requests.<sup>32</sup> We remain open to working with smaller voice service providers and other stakeholders to ensure that they understand the traceback process and how best to handle these requests.

9. There is significant overlap with commenters' concerns regarding the second and third requirements. In general, these concerns urge the Commission to ensure that these requirements, to the extent possible, consider that smaller voice service providers will have fewer resources.<sup>33</sup> INCOMPAS

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<sup>24</sup> *Id.* at para. 74.

<sup>25</sup> ACA Connects Comments at 2, 7, 10-11; ACA Connects Reply Comments at 3-6; Competitive Carriers Comments at 4-6; INCOMPAS Comments at 6; INCOMPAS Reply Comments at 5; Telnix Comments at 2; WTA Comments at 2, 10-13.

<sup>26</sup> ACA Connects at 2, 10-11; ACA Connects Reply Comment at 5-6; Competitive Carriers Comments at 5; INCOMPAS Reply Comments at 5-6; WTA Comments at 10-11.

<sup>27</sup> ACA Connects Comments at 5; ACA Connects Reply Comments at 3-4; Competitive Carriers Comments at 4-6; Telnix Comments at 2; WTA Comments at 12-13.

<sup>28</sup> ACA Connects Comments at 6-7 (raising concerns regarding further implementation of TRACED Act section 7); INCOMPAS Comments at 6 (urging the Commission to ensure that any new requirements for "call authentication" be tailored to ensure that they do not adversely affect progress on rural call completion); WTA Comments at 2 (discussing issues related to rural local exchange carriers and TDM interconnection).

<sup>29</sup> *Report and Order* at paras. 14-38.

<sup>30</sup> ACA Connects Comments at 2, 10-11; ACA Connects Reply Comments at 5-6; Competitive Carriers Comments at 5; INCOMPAS Reply Comments at 5-6; WTA Comments at 10-11.

<sup>31</sup> ACA Connects Comments 2, 10-11; ACA Connects Reply Comments at 5-6.

<sup>32</sup> *Report and Order* at para. 17.

<sup>33</sup> Competitive Carriers Comments at 5; INCOMPAS Comments at 5; INCOMPAS Reply Comments at 5-6; WTA Comments at 10-11.

urges us to avoid overly prescriptive requirements and to provide flexibility on the third requirement.<sup>34</sup> Competitive Carriers urges us to ensure that, with regard to new and renewing customers, the requirement “is satisfied so long as a provider takes action once it has actual knowledge of a customer originating illegal calls.”<sup>35</sup> WTA asks that the Commission define particular steps so a voice service provider can be sure it is in compliance.<sup>36</sup> The *Report and Order* makes clear that, while we do not define specific steps, we do not expect perfection, and that enforcement of contract clauses is sufficient to satisfy the third requirement.<sup>37</sup> By granting flexibility, we ensure that all voice service providers can determine the approach best suited to their networks.

10. *Transparency and Redress.* The *Report and Order* adopts several transparency and redress requirements, including immediate notification of blocking, provision of a blocked calls list for consumers, and status updates regarding disputes.<sup>38</sup> Commenters raise concerns that prescriptive transparency and redress mandates are particularly burdensome for smaller voice service providers, and generally seek flexibility.<sup>39</sup> They note that smaller providers are more often reliant on third parties, both for blocking services and associated redress.<sup>40</sup> Commenters also raise particular concerns regarding speed of redress for smaller providers.<sup>41</sup> There is, however, some disagreement on this issue, with Telnyx noting that smaller voice service providers may also be disadvantaged if larger voice service providers take too long to resolve disputes.<sup>42</sup> WTA also raises concerns about the burdens associated with requiring a blocked calls list, but does not specifically tie these concerns to voice service provider size.<sup>43</sup>

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

11. 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.<sup>44</sup> 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 the Rules Will Apply**

12. 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.<sup>45</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small

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<sup>34</sup> INCOMPAS Comments at 5; INCOMPAS Reply Comments at 5-6.

<sup>35</sup> Competitive Carriers Comments at 5.

<sup>36</sup> WTA Comments at 10-11.

<sup>37</sup> *Report and Order* at paras. 32-36.

<sup>38</sup> *Id.* at paras. 48-73.

<sup>39</sup> ACA Connects Comments at 5; ACA Connects Reply Comments at 3-4; Competitive Carriers Comments at 4-6; WTA Comments at 12-13.

<sup>40</sup> ACA Comments at 5; Competitive Carriers Comments at 4-5.

<sup>41</sup> Competitive Carriers Comments at 5; WTA Comments at 12-13.

<sup>42</sup> Telnyx Comments at 2.

<sup>43</sup> WTA Comments at 14-15.

<sup>44</sup> 5 U.S.C. § 604(a)(3).

<sup>45</sup> *See* 5 U.S.C. § 603(b)(3).

organization,” and “small governmental jurisdiction.”<sup>46</sup> In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act.<sup>47</sup> 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.<sup>48</sup>

### 1. Wireline Carriers

13. *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.”<sup>49</sup> 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.<sup>50</sup> 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.<sup>51</sup> Thus, under this size standard, the majority of firms in this industry can be considered small.

14. *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 services using facilities and infrastructure that they operate are included in this industry.”<sup>52</sup> Under that

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<sup>46</sup> See 5 U.S.C. § 601(6).

<sup>47</sup> 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.”

<sup>48</sup> See 15 U.S.C. § 632.

<sup>49</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>50</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>51</sup> 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>.

<sup>52</sup> 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.<sup>53</sup> 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.<sup>54</sup> Consequently, the Commission estimates that most providers of local exchange service are small businesses.

15. *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.”<sup>55</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>56</sup> 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.<sup>57</sup> Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

16. *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 providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”<sup>58</sup> Under that size standard, such a business is small if it has 1,500 or fewer

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<sup>53</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>54</sup> 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>.

<sup>55</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>56</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>57</sup> 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>.

<sup>58</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

employees.<sup>59</sup> 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.<sup>60</sup> 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.

17. 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.”<sup>61</sup> 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.<sup>62</sup> 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.

18. *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.”<sup>63</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>64</sup> 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.<sup>65</sup> Consequently, the Commission estimates that the majority of interexchange carriers are small entities.

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<sup>59</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>60</sup> 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>.

<sup>61</sup> 5 U.S.C. § 601(3).

<sup>62</sup> 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).

<sup>63</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>64</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>65</sup> 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>.

19. *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.”<sup>66</sup> There are approximately 52,403,705 cable video subscribers in the United States today.<sup>67</sup> 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.<sup>68</sup> Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.<sup>69</sup> 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.<sup>70</sup> 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.

20. *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.”<sup>71</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>72</sup> 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.<sup>73</sup> Thus, under this category and the associated small business size standard, the majority of other toll carriers can be considered small.

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<sup>66</sup> 47 CFR § 76.901 (f) and notes ff. 1, 2, and 3.

<sup>67</sup> See SNL KAGAN at [www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx](http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx).

<sup>68</sup> 47 CFR § 76.901(f) and notes ff. 1, 2, and 3.

<sup>69</sup> See SNL KAGAN at <https://www.snl.com/Interactivex/TopCableMSOs.aspx>.

<sup>70</sup> 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).

<sup>71</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517311 Wired Telecommunications Carriers”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>72</sup> 13 CFR § 121.201, NAICS code 517311.

<sup>73</sup> 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>.

## 2. Wireless Carriers

21. *Wireless Telecommunications Carriers (except Satellite)*. Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category.<sup>74</sup> Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees.<sup>75</sup> 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.<sup>76</sup> 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.<sup>77</sup> Of this total, an estimated 261 have 1,500 or fewer employees.<sup>78</sup> Thus, using available data, we estimate that the majority of wireless firms can be considered small.

22. *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.”<sup>79</sup> This category has a small business size standard of \$35.0 million or less in average annual receipts, under SBA rules.<sup>80</sup> For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.<sup>81</sup> Of this total, 299 firms had annual receipts of under \$25 million.<sup>82</sup> Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

23. *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

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<sup>74</sup> U.S. Census Bureau, 2017 NAICS Definitions, “517312 Wireless Telecommunications Carriers (Except Satellite)”; <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>75</sup> 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).

<sup>76</sup> 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>.

<sup>77</sup> *Trends in Telephone Service*, tbl. 5.3.

<sup>78</sup> *Id.*

<sup>79</sup> U.S. Census Bureau, 2012 NAICS Definitions, “517410 Satellite Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517410&search=2012>.

<sup>80</sup> 13 CFR § 121.201, NAICS Code 517410.

<sup>81</sup> U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, “Establishment and Firm Size,” NAICS code 517410.

<sup>82</sup> *Id.*

also included in this industry.”<sup>83</sup> The SBA has developed a small business size standard for the category of All Other Telecommunications.<sup>84</sup> Under that size standard, such a business is small if it has \$35.0 million in annual receipts.<sup>85</sup> For this category, Census Bureau data for 2012 show that there were a total of 1,442 firms that operated for the entire year.<sup>86</sup> Of this total, 1,400 had annual receipts below \$25 million per year.<sup>87</sup> Consequently, we estimate that the majority of all other telecommunications firms are small entities.

### 3. Resellers

24. *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.<sup>88</sup> The SBA has developed a small business size standard for the category of Telecommunications Resellers.<sup>89</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>90</sup> 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.<sup>91</sup> 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.<sup>92</sup> Of this total, an estimated 857 have 1,500 or fewer employees.<sup>93</sup> Consequently, the Commission estimates that the majority of toll resellers are small entities.

25. *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

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<sup>83</sup> U.S. Census Bureau, 2012 NAICS Definitions, “517919 All Other Telecommunications,” <http://www.census.gov/cgi-bin/sssd/naics/naicsrch>.

<sup>84</sup> 13 CFR § 121.201, NAICS code 517919.

<sup>85</sup> *Id.*

<sup>86</sup> 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>.

<sup>87</sup> *Id.*

<sup>88</sup> <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

<sup>89</sup> 13 CFR § 121.201, NAICS code 517911.

<sup>90</sup> *Id.*

<sup>91</sup> 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>.

<sup>92</sup> *Trends in Telephone Service*, at tbl. 5.3.

<sup>93</sup> *Id.*

transmission facilities and infrastructure. MVNOs are included in this industry.<sup>94</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>95</sup> 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.<sup>96</sup> Thus, under this category and the associated small business size standard, the majority of these local resellers can be considered small entities.

26. *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.<sup>97</sup> Under that size standard, such a business is small if it has 1,500 or fewer employees.<sup>98</sup> 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.<sup>99</sup> 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**

27. *This Report and Order* requires voice service providers to meet certain affirmative obligations and to provide specific transparency and redress to both callers and consumers. These changes affect small and large companies equally and apply equally to all the classes of regulated entities identified above.

28. *Reporting and Recordkeeping Requirements.* The *Report and Order* requires voice service providers to effectively mitigate illegal traffic once notified of suspected illegal traffic by the Commission through its Enforcement Bureau. As part of this requirement, a notified voice service providers must promptly report the results of its investigation to the Enforcement Bureau, including any steps the voice service provider has taken to effectively mitigate the identified traffic, or an explanation as to why the voice service provider reasonably concluded that the identified calls were not illegal, and what steps it took to reach that conclusion. The *Report and Order* also requires voice service providers to provide, at the request of a subscriber, a list of calls blocked on an opt-out or opt-in basis over the prior 28 days. This requires voice service providers that block calls on an opt-out or opt-in basis to retain records regarding such blocking for a minimum of 28 days. The other requirements adopted in the *Report and Order* do not include specific recordkeeping or retention requirements. However, voice service providers may find it necessary to retain records to ensure that they are able to resolve blocking disputes, respond to traceback, or demonstrate that they are in compliance with our rules in the event of a dispute.

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<sup>94</sup> <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

<sup>95</sup> 13 CFR § 121.201, NAICS code 517911.

<sup>96</sup> 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>.

<sup>97</sup> <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012>.

<sup>98</sup> 13 CFR § 121.201, NAICS code 517911.

<sup>99</sup> 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>.

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

29. 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.<sup>100</sup>

30. The Commission considered feedback from the *Order and Further Notice* in crafting the final order. We evaluated the comments with the goal of protecting consumers from illegal calls while also ensuring that both consumers and callers receive transparency and effective redress. For example, in establishing affirmative obligations for voice service providers, we ensured that voice service providers have flexibility to determine how best to comply and made clear that we do not expect perfection. With regard to transparency and redress requirements, wherever possible, we ensure that prescriptive requirements make use of already-existing mechanisms to minimize the burdens and declined to require resolution of blocking disputes within a specific timeframe.<sup>101</sup> We also delay the date of compliance, setting it at January 1, 2022 from the date of adoption of the *Order*, to ensure that voice service providers have sufficient time to make any necessary upgrades or configuration changes before they must provide immediate notification of blocked calls by providing a SIP or ISUP code.<sup>102</sup>

31. The *Report and Order* carefully weighs the concerns of small voice service providers against those of callers, many of which are also small businesses. In adopting an immediate notification requirement, it makes use of existing mechanisms and delays the compliance date to keep the burden as low as possible while still providing important information to callers.<sup>103</sup> Further, in requiring a status update, but not resolution, within 24 hours, the *Report and Order* ensures that small voice service providers have necessary time to conduct investigations while also providing valuable information to callers.<sup>104</sup> The requirements adopted in the *Report and Order* will impose some burden on smaller voice service providers, but these burdens are necessary to implement the TRACED Act and ensure that both callers and consumers are provided with transparency and effective redress.<sup>105</sup>

32. 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. Any voice service providers that require such a delay may reach out through the usual processes. Similarly, there are no design standards or performance standards to consider in this rulemaking.

## G. Report to Congress

33. 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.<sup>106</sup> In addition, the Commission will send a copy of the *Report and Order*, including this

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<sup>100</sup> 5 U.S.C. § 603.

<sup>101</sup> *Report and Order* at paras. 48-73.

<sup>102</sup> *Id.* at para. 61.

<sup>103</sup> *Id.* at paras. 52-51.

<sup>104</sup> *Id.* at paras. 71-73.

<sup>105</sup> *Id.* at paras. 48-73.

<sup>106</sup> 5 U.S.C. § 801(a)(1)(A).

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.<sup>107</sup>

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<sup>107</sup> *See id.* § 604(b).