

FCC FACT SHEET*

Numbering Policies for Modern Communications, et al.

Further Notice of Proposed Rulemaking – WC Docket Nos. 13-97, 07-243, 20-67, IB Docket No. 16-155

Background: Congress, via the TRACED Act, directed the FCC to examine whether and how to modify its policies to reduce access to numbers by potential perpetrators of illegal robocalls. Consistent with this direction, the FCC is taking further action to stem the tide of illegal robocalls by proposing to update our rules regarding direct access to numbers by interconnected voice over Internet Protocol (VoIP) providers. In 2015, the FCC first began to allow interconnected VoIP providers to obtain numbers for customers directly from the Numbering Administrator, rather than relying on a carrier partner. Based on our experience since that time, we propose to adopt clarifications and guardrails to safeguard the nation’s finite numbering resources, protect national security, reduce the opportunity for regulatory arbitrage, and further promote public safety. Specifically, we propose revisions to our rules to better ensure that VoIP providers that obtain the benefit of direct access to numbers comply with existing legal obligations and do not facilitate illegal robocalls, pose national security risks, or evade or abuse intercarrier compensation requirements.

What the Further Notice Would Do:

- Propose to require additional certifications as part of the direct access application process regarding, among other things, compliance with anti-robocalling obligations, and clarify existing requirements.
- Propose to clarify that applicants for direct access authorization must disclose foreign ownership information, and propose to direct staff to generally refer applications with 10% or greater foreign ownership to the Executive Branch agencies for their views, consistent with our referral of other types of applications.
- Propose to clarify that holders of an FCC direct access authorization must update the FCC and applicable states within 30 days of any change to the ownership information submitted to the FCC.
- Propose to clarify that FCC staff retains the authority to determine when to accept filings as complete, and propose to delegate authority to FCC staff to reject an application if an applicant has engaged in behavior contrary to the public interest or has been found to originate or transmit illegal robocalls.
- Seek comment on whether to expand the direct access to numbers authorization process to one-way VoIP providers or other entities that use numbers.

* This document is being released as part of a “permit-but-disclose” proceeding. Any presentations or views on the subject expressed to the Commission or its staff, including by email, must be filed in WC Docket Nos. 13-97, 07-243, 20-67; IB Docket No. 16-155, which may be accessed via the Electronic Comment Filing System (<https://www.fcc.gov/ecfs/>). Before filing, participants should familiarize themselves with the Commission’s *ex parte* rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR § 1.1200 *et seq.*

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

In the Matter of)
Numbering Policies for Modern Communications) WC Docket No. 13-97
Telephone Number Requirements for IP-Enabled) WC Docket No. 07-243
Service Providers)
Implementation of TRACED Act Section 6(a) —) WC Docket No. 20-67
Knowledge of Customers by Entities with Access)
to Numbering Resources)
Process Reform for Executive Branch Review of) IB Docket No. 16-155
Certain FCC Applications and Petitions Involving)
Foreign Ownership)

FURTHER NOTICE OF PROPOSED RULEMAKING*

Adopted: []

Released: []

Comment Date: [[30]] days after Federal Register Publication

Reply Date: [[60]] days after Federal Register Publication

By the Commission:

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* This document has been circulated for tentative consideration by the Commission at its August 5, 2021 open meeting. The issues referenced in this document and the Commission’s ultimate resolution of those issues remain under consideration and subject to change. This document does not constitute any official action by the Commission. However, the Acting Chairwoman has determined that, in the interest of promoting the public’s ability to understand the nature and scope of issues under consideration, the public interest would be served by making this document publicly available. The FCC’s ex parte rules apply and presentations are subject to “permit-but-disclose” ex parte rules. See, e.g., 47 C.F.R. §§ 1.1206, 1.1200(a). Participants in this proceeding should familiarize themselves with the Commission’s ex parte rules, including the general prohibition on presentations (written and oral) on matters listed on the Sunshine Agenda, which is typically released a week prior to the Commission’s meeting. See 47 CFR §§ 1.1200(a), 1.1203.

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I. INTRODUCTION

1. In the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act, Congress directed the Federal Communications Commission (Commission) to examine whether and how to modify our policies to reduce access to numbers by potential perpetrators of illegal robocalls.¹ Consistent with Congress’s direction, today we take further action to stem the tide of illegal robocalls by proposing to update our rules regarding direct access to numbers by providers of interconnected voice over Internet Protocol (VoIP) services.² The actions we propose today are also intended to provide additional guardrails to safeguard the nation’s finite numbering resources, protect national security, reduce the opportunity for regulatory arbitrage, and further promote public safety.

2. The rising tide of robocalls and the emergence of VoIP go hand in hand. Driven in part by the rise of VoIP, the telecommunications industry has transitioned from a limited number of carriers that all trusted each other to provide accurate calling party origination information to a proliferation of different voice service providers and entities originating calls, which allows consumers to enjoy the benefits of increased competition but also creates new ways for bad actors to undermine trust.³ Today, widely available VoIP software can allow bad actors with malicious intent to make spoofed calls with minimal technical experience and cost.⁴ Therefore, as we continue to refine our process for allowing VoIP providers direct access to telephone numbers, we must account both for the benefits of competition and the potential risks of allowing bad actors to leverage access to numbers to harm Americans.

3. The Commission first began to allow interconnected VoIP providers to obtain numbers for customers directly from the Numbering Administrator—rather than relying on a carrier partner—in 2015.⁵ Based on our experience since that time, we propose to adopt clarifications and guardrails to better ensure that VoIP providers that obtain the benefit of direct access to numbers comply with existing

¹ See Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, Pub. L. No. 116-105, § 6(a)(1)-(2), 133 Stat. 3274, 3277 (2019) (TRACED Act). Section 6(a) of the TRACED Act also requires the Commission to “commence a proceeding to determine how Commission policies regarding access to number resources, including number resources for toll-free and non-toll-free telephone numbers, could be modified, including by establishing registration and compliance obligations, and requirements that providers of voice service given access to number resources take sufficient steps to know the identity of the customers of such providers” within 180 after enactment. The Commission commenced the proceeding as required in March 2020, and this *Further Notice* expands on those inquiries. *Call Authentication Trust Anchor et al.*, WC Docket No. 17-97 et al., Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 3241, 3492-96, paras. 123-30 (2020) (*TRACED Act Section 6(a) Order and Further Notice*).

² An “interconnected VoIP service” is a service that “(i) [e]nables real-time, two-way voice communications; (ii) [r]equires a broadband connection from the user’s location; (iii) [r]equires internet protocol-compatible customer premises equipment (CPE); and (iv) [p]ermits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.” 47 CFR § 9.3; *see also* 47 U.S.C. § 153(25) (incorporating this definition by reference).

³ *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3243-44, para. 4.

⁴ *Id.*

⁵ *See Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Report and Order, 30 FCC Rcd 6839 (2015) (*VoIP Direct Access Order*), *appeal dismissed*, *NARUC v. FCC*, 851 F.3d 1324 (D.C. Cir. 2017).

federal and state legal obligations and do not facilitate illegal robocalls, pose national security risks, or evade or abuse intercarrier compensation requirements.

4. Today's proposals are part of our ongoing efforts to protect Americans from unwanted and illegal robocalls in a variety of ways. In 2021 alone, we have issued the largest robocall fine in Commission history;⁶ demanded that certain voice service providers cease and desist from facilitating illegal robocalls;⁷ proposed curtailing an extension from caller ID authentication obligations for small voice service providers that originate a disproportionate share of traffic;⁸ and delivered letters to the Federal Trade Commission, Department of Justice, and the National Association of State Attorneys General to renew state-federal partnerships to combat the proliferation of illegal robocalls.⁹ In addition, under our rules, larger voice service providers are now required to have in place STIR/SHAKEN caller ID authentication in Session Internet Protocol (SIP)¹⁰ used over the Internet Protocol (IP) portions of the network, and all voice service providers are required to have submitted certifications in our new Robocall Mitigation Database attesting to having implemented either caller ID authentication or a detailed robocall mitigation program.¹¹ We will continue to take every opportunity to protect Americans from the scourge of illegal robocalls.

II. BACKGROUND

5. Section 52.15(g)(2) of the Commission's rules limits access to telephone numbers to entities that demonstrate they are authorized to provide service in the area for which they request numbers.¹² The Commission has interpreted this rule as requiring evidence of either a state certificate of public convenience and necessity (CPCN) or a Commission license.¹³ Historically, only telecommunications carriers were able to provide the proof of authorization required under our rules and therefore obtain numbers directly from the Numbering Administrator.¹⁴ Neither of these authorizations is typically available to interconnected VoIP providers "because state commissions may lack jurisdiction to certify VoIP providers and [because such providers] are not eligible for a Commission license."¹⁵ In addition, the Commission has preempted state entry regulation of certain interconnected VoIP services to

⁶ *John C. Spiller et al.*, File No. EB-TCD-18-00027781, Forfeiture Order, FCC 21-35 (rel. Mar. 18, 2021).

⁷ *See, e.g.*, Letter from Kristi Thompson, Chief, Telecommunications Consumers Division, Enforcement Bureau, FCC, to Vitaly Potapov, CEO, RSCOM LTD (Mar. 17, 2021), <https://docs.fcc.gov/public/attachments/DOC-370915A1.pdf>.

⁸ *Call Authentication Trust Anchor*, WC Docket No. 17-97, Third Further Notice of Proposed Rulemaking, FCC 21-62 (rel. May 21, 2021).

⁹ Press Release, FCC, Acting Chairwoman Rosenworcel Kicks Off Anti-Robocall Agenda at 2 (Mar. 17, 2021), <https://www.fcc.gov/document/acting-chairwoman-rosenworcel-kicks-anti-robocall-agenda>.

¹⁰ *See* Jon Peterson et al., Authenticated Identity Management in the Session Initiation Protocol, RFC-8224, IETF, Feb. 2018, <https://datatracker.ietf.org/doc/rfc8224/>.

¹¹ *See* 47 CFR §§ 64.6301, 64.6304, 64.6305.

¹² 47 CFR § 52.15(g)(2).

¹³ *See VoIP Direct Access Order*, 20 FCC Rcd at 6391, para. 4.

¹⁴ In this *Further Notice*, we refer to the North American Numbering Plan Administrator and the Pooling Administrator as the Numbering Administrator. Although these functions are described separately in our rules (*see, e.g.*, 47 CFR §§ 52.13, 52.20), they are currently combined under a single Commission contract. *See* FCC Selects SomosGov as Next Telephone Number Administrator and Reassigned Numbers Database Administrator (Dec. 21, 2020), <https://docs.fcc.gov/public/attachments/DOC-368493A1.pdf>.

¹⁵ *VoIP Direct Access Order*, 30 FCC Rcd at 6848, para. 20.

the extent that it interferes with important federal objectives.¹⁶ Since they could not obtain numbers directly, interconnected VoIP providers would instead obtain numbers from a carrier partner, an arrangement that could potentially hinder troubleshooting of problematic calls to rural local exchange carriers and visibility into number utilization. Specifically, when interconnected VoIP providers use a carrier numbering partner, the carrier partner is listed in the Local Exchange Routing Guide and industry databases, making it more difficult for other providers to identify the entity with which they are exchanging traffic.¹⁷

6. In 2015, the Commission established a process to authorize interconnected VoIP providers to obtain North American Numbering Plan (NANP)¹⁸ telephone numbers directly from the Numbering Administrator, rather than through carrier partners.¹⁹ At the time, the Commission found that permitting interconnected VoIP providers to obtain telephone numbers directly from the Numbering Administrator would improve responsiveness in the number porting process and increase visibility and accuracy of number utilization, enabling the Commission to more effectively protect finite numbering resources in the U.S.²⁰ The Commission also found that its authorization process would enhance the Commission's ability to enforce its rules governing interconnected VoIP providers and expressed the expectation that "authorizing interconnected VoIP providers to obtain numbers directly will help stakeholders and the Commission identify the source of routing problems and take corrective action."²¹

7. The Commission's rules generally require interconnected VoIP providers obtaining numbers to comply with the same requirements applicable to carriers seeking to obtain numbers, and establish specific requirements for applying for, and maintaining, a Commission authorization for direct access to numbers. Applicants must:

- provide applicant's company name, company headquarters address, Operating Company Number (OCN), parent company's OCN(s), and the primary type of business in which the numbering resources will be used;²²
- comply with applicable Commission rules related to numbering, including, among others, numbering utilization and optimization requirements (in particular, filing Numbering Resource Utilization and Forecast (NRUF) Reports);²³ comply with guidelines and procedures adopted pursuant to numbering authority delegated to the states;²⁴ and comply

¹⁶ See *Petition of Vonage Holdings Corporation for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 04-267, Memorandum Opinion and Order, 19 FCC Rcd 22404 (2004), *aff'd sub nom. Minnesota Pub. Utils. Comm'n v. FCC*, 483 F.3d 570 (8th Cir. 2007).

¹⁷ See *VoIP Direct Access Order*, 30 FCC Rcd at 6847, 6845, paras. 8, 16 ("We expect that interconnected VoIP provider use of numbers obtained directly from the numbering administrators, rather than through carrier partners, will enable more expedient troubleshooting of problematic calls to rural Local Exchange Carriers (LECs) that may originate from interconnected VoIP providers, as well as enabling greater visibility into number utilization.").

¹⁸ The NANP is the basic numbering scheme for telecommunications networks located in the United States and its territories, Canada, and parts of the Caribbean. See 47 CFR § 52.5(c). NANP telephone numbers are ten-digit numbers consisting of a three-digit area code, followed by a seven-digit local number.

¹⁹ *VoIP Direct Access Order*, 30 FCC Rcd at 6839.

²⁰ *Id.* at 6841, para. 2.

²¹ *Id.* at 6841, para. 2.

²² 47 CFR § 52.15(g)(1).

²³ See 47 CFR Part 52.

²⁴ See *VoIP Direct Access Order*, 30 FCC Rcd at 6852, para. 27 ("Accordingly, we require interconnected VoIP providers that receive Commission authorization to obtain telephone numbers directly to comply with each of the

(continued....)

with industry guidelines and practices applicable to telecommunications carriers with regard to numbering;²⁵

- file requests for numbers with the relevant state commission(s) at least 30 days before requesting numbers from the Numbering Administrator;²⁶
- provide contact information for personnel qualified to address issues relating to regulatory requirements, numbering, compliance, 911, and law enforcement;²⁷
- provide proof the applicant is or will be capable of providing service within sixty (60) days of the numbering resources activation date in accordance with 47 CFR § 52.15(g)(2), i.e., “facilities readiness”;²⁸
- certify that the applicant complies with its Universal Service Fund contribution obligations, its Telecommunications Relay Service contribution obligations, its NANP and local number portability administration contribution obligations, its obligations to pay regulatory fees under 47 CFR § 1.1154, and its 911 obligations under 47 CFR part 9; and that no party to the application is subject to a denial of Federal benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1988;²⁹ and
- certify that the applicant has the requisite technical, managerial, and financial capacity to provide service. This certification must include the name of the applicant’s key management and technical personnel, such as the Chief Operating Officer and the Chief Technology Officer, or equivalent, and state that none of the identified personnel are being or have been investigated by the Commission or any law enforcement or regulatory agency for failure to comply with any law, rule, or order.³⁰

8. Interconnected VoIP providers must file applications for direct access authorizations via the Commission’s Electronic Comment Filing System (ECFS).³¹ Wireline Competition Bureau (Bureau) staff review applications for conformance with procedural rules, and if satisfied, release an “Accepted-for Filing Public Notice” seeking comment on the application.³² Applications are deemed granted by the Commission on the 31st day after the Commission releases a public notice stating that the application has

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Commission’s number administration requirements, including any state requirements pursuant to numbering authority delegated to the states by the Commission.”).

²⁵ *See id.*

²⁶ The Commission also requires interconnected VoIP providers to give accurate regulatory and numbering contact information to a state Commission when they request numbers in that state, and to update this information whenever it becomes outdated. *See VoIP Direct Access Order*, 30 FCC Rcd at 6859, para. 43.

²⁷ 47 CFR § 52.15(g)(3)(i)(A).

²⁸ 47 CFR § 52.15(g)(3)(i)(D). The Commission permitted an interconnected VoIP provider to demonstrate proof of facilities readiness by (1) providing a combination of an agreement between the interconnected VoIP provider and its carrier partner and an interconnection agreement between that carrier and the relevant local exchange carrier, or (2) proof that the interconnected VoIP provider obtains interconnection with the Public Switched Telephone Network (PSTN) pursuant to a tariffed offering or a commercial arrangement (such as a TDM-to-IP or a VoIP interconnection agreement) that provides access to the PSTN. *See VoIP Direct Access Order*, 30 FCC Rcd at 6856-57, para. 37.

²⁹ 47 CFR § 52.15(g)(3)(i)(E), (G).

³⁰ *VoIP Direct Access Order*, 30 FCC Rcd at 6849-50, para. 24.

³¹ 47 CFR § 52.15(g)(3)(ii).

³² *VoIP Direct Access Order*, 30 FCC Rcd at 6858, para. 39.

been accepted for filing, unless the Bureau notifies the applicant that the grant will not be automatically effective.³³ The Bureau may halt the auto-grant process if (1) an applicant fails to respond promptly to Commission inquiries, (2) an application is associated with a non-routine request for waiver of the Commission's rules, (3) timely-filed comments on the application raise public interest concerns that require further Commission review, or (4) the Bureau determines that the request requires further analysis to determine whether a request for authorization for direct access to numbers would serve the public interest.³⁴

9. Once an interconnected VoIP provider has Commission authorization to obtain numbers, it may request numbers directly from the Numbering Administrator.³⁵ The Commission "direct[ed] and delegate[d] authority to the Wireline Competition Bureau to implement and maintain the authorization process."³⁶ Interconnected VoIP providers that apply for and receive Commission authorization for direct access to numbers "are subject to, and acknowledge, Commission enforcement authority."³⁷ Failure to comply with the obligations set out by the Commission "could result in revocation of the Commission's authorization, the inability to obtain additional numbers pending that revocation, reclamation of un-assigned numbers already obtained directly from the Numbering Administrators, or enforcement action."³⁸ The Commission delegated authority to the Wireline Competition and Enforcement Bureaus to order the revocation of authorization and to direct the Numbering Administrator to reclaim any of the service provider's unassigned numbers.³⁹

III. DISCUSSION

10. The Bureau has reviewed nearly 150 VoIP direct access to numbers applications and approved 85 applications since adoption of the *VoIP Direct Access Order* six years ago.⁴⁰ Experience has shown that the information the *VoIP Direct Access Order* specifically requires applicants to submit, while important to the Bureau's public interest review, has significant omissions. For instance, applicants are not required by rule to submit (1) certifications concerning compliance with anti-robocalling, law enforcement assistance, and other important legal obligations; (2) technical information demonstrating that they offer interconnected as opposed to one-way or non-interconnected VoIP;⁴¹ or (3) details on any foreign ownership. The Bureau, consistent with the *VoIP Direct Access Order*, has requested such

³³ 47 CFR § 52.15(g)(3)(iii).

³⁴ See 47 CFR § 52.15(g)(3)(iii)(A-D); *VoIP Direct Access Order*, 30 FCC Rcd at 6858, para. 40.

³⁵ Once an interconnected VoIP provider obtains Commission authorization, we do not require it to notify the Commission of ongoing requests for numbers.

³⁶ *VoIP Direct Access Order*, 30 FCC Rcd at 6849, para. 22 & n.70 ("This Report and Order's delegation of authority to the Wireline Competition Bureau is limited to the specific delegations made in herein. Unless otherwise within the scope of the Bureau's delegated authority, matters pertaining to the process for authorizing direct access to numbers for interconnected VoIP providers will be decided by the full Commission.").

³⁷ *Id.* at 6864, para. 52.

³⁸ *Id.* at 6852, para. 28.

³⁹ *Id.* at 6852, para. 53.

⁴⁰ See FCC, VoIP Numbering Authorizations, <https://www.fcc.gov/wireline-competition/competition-policy-division/numbering-resources/general/voip-numbering> (last visited July 14, 2021).

⁴¹ "One-way VoIP" differs from interconnected VoIP in that one-way VoIP permits users generally to receive calls that originate on the public switched telephone network *or* to terminate calls to the public switched telephone network, but not both. See 47 CFR § 52.200(e)(2) (defining "one-way VoIP"). Non-interconnected VoIP is a broader category than one-way VoIP and includes both one-way VoIP and Internet-based real-time voice communication that does not interconnect with the public switched telephone network. See 47 U.S.C. § 153(36) (defining "non-interconnected VoIP").

information from applicants where appropriate.⁴² It has accepted certain applications for non-streamlined treatment that involve significant foreign ownership, raising potential national security issues.⁴³ In addition, for the first time since adoption of the direct access process, commenters recently have objected to automatic approval of applications, in one case alleging that a series of applications “raise potential concerns regarding” both “intercarrier compensation” and “call routing or call blocking.”⁴⁴

11. To provide additional guardrails to safeguard the nation’s finite numbering resources, protect consumers, curb illegal and harmful robocalling, reduce the opportunity for regulatory arbitrage, and further promote public safety, we propose and seek comment on a number of modifications to our rules governing the authorization process for interconnected VoIP providers’ direct access to numbering resources. First, to enable Commission staff to have the necessary information to efficiently review direct access applications and continue protecting the public interest, we propose to require additional certifications as part of the direct access application process and clarify existing requirements. Second, to help address the risk of providing access to our numbering resources and databases to bad actors abroad, we propose clarifying that applicants must disclose foreign ownership information. Third, we propose clarifying that holders of a Commission direct access authorization must update the Commission and applicable states within 30 days of any change to the ownership information submitted to the Commission. Fourth, we seek comment whether any changes to our rules are necessary to clarify that holders of a Commission direct access authorization must comply with state numbering requirements. Fifth, we propose to clarify that the Bureau retains the authority to determine when to release an Accepted-for-Filing Public Notice, and we propose to delegate authority to the Bureau to reject an application for direct access authorization if an applicant has engaged in behavior contrary to the public interest or has been found to have originated or transmitted illegal robocalls. Finally, we seek comment whether we should expand the direct access to numbers authorization process to one-way VoIP providers or other entities that use numbers.

A. Clarifying and Refining Application Requirements

12. To help curb illegal robocalls and improve the ability of Commission staff to safeguard the public interest and operate efficiently when reviewing VoIP direct access to numbers applications, we propose to require additional certifications as part of the direct access application process and clarify existing requirements. We seek comment on the burdens of imposing potential certification requirements, as discussed below, on applicants for numbering resources, particularly on small businesses.

13. *Certification Regarding Illegal Robocalls and/or Illegal Spoofing.* We propose to require a direct access applicant to certify that it will use numbering resources lawfully; will not encourage nor assist and facilitate⁴⁵ illegal robocalls, illegal spoofing, or fraud; and will take reasonable steps to cease

⁴² *VoIP Direct Access Order*, 30 FCC Rcd at 6858, para. 40.

⁴³ See *Interconnected VoIP Numbering Authorization Application Filed by Mitel Cloud Services, Inc., Pursuant to Section 52.15(g)(3) of the Commission’s Rules*, WC Docket No. 20-149, Public Notice, 36 FCC Rcd 1343 (WCB 2021); *Interconnected VoIP Numbering Authorization Application Filed by Simwood, Inc., Pursuant to Section 52.15(g)(3) of the Commission’s Rules*, WC Docket No. 19-96, Public Notice, 36 FCC Rcd 1346 (WCB 2021) (*Simwood Public Notice*); *Interconnected VoIP Numbering Authorization Application Filed by NobelBiz, Inc., Pursuant to Section 52.15(g)(3) of the Commission’s Rules*, WC Docket No. 20-385, Public Notice, DA 21-254 (WCB Mar. 2, 2021) (*NobelBiz Public Notice*); *Interconnected VoIP Numbering Authorization Application Filed by TRUSTID, Inc., Pursuant to Section 52.15(g)(3) of the Commission’s Rules*, WC Docket No. 20-132, Public Notice, DA 21-255 (WCB Mar. 2, 2021) (*TRUSTID Public Notice*).

⁴⁴ Comments of AT&T in Opposition to Interconnected VoIP Numbering Authorization Applications, WC Docket No. 19-313 et al., at 1-2 (Jan. 21, 2021) (opposing the direct access application for the five separately filed HDC Companies); see also Comments of CarrierX, LLC, WC Docket No. 20-149 at 3 (Feb. 22, 2021).

⁴⁵ See, e.g., 16 CFR Part 310(b) (prohibiting deceptive and abusive telemarketing practices, and the “assisting and facilitating” of specified conduct); FTC and FCC Send Joint Letters to VoIP Service Providers Warning Against ‘Routing and Transmitting’ Illegal Coronavirus-related Robocalls, FTC (Apr. 3, 2020), <https://www.ftc.gov/news->

origination, termination, and/or transmission of illegal robocalls once discovered. We seek comment on whether we should adopt specific standards for what constitutes “assisting and facilitating” in this context, and if so, what would constitute “reasonable” measures for purposes of this proposal. How would any such specific standards impact the Commission’s and our federal partners’ efforts to curb illegal robocalls? We also propose to require direct access applicants to certify that they will cooperate with the Commission, federal and state law enforcement and regulatory agencies with relevant jurisdiction, and the industry-led registered consortium, regarding efforts to mitigate illegal or harmful robocalling or spoofing and tracebacks.⁴⁶ We seek comment on these proposals. Are there specific practices we should require applicants to address in their certifications? For example, should we require applicants to certify that the applicant will not supply numbers on a trial basis to new customers (i.e., use of numbers for free for the first 30 days, etc.), a practice that commonly leads to bad actors gaining temporary control over numbers for the purposes of including misleading caller ID information? Should we require applicants to certify that they “know their customer” through customer identity verification, as the Commission raised previously?⁴⁷ Would such additional certification requirements place interconnected VoIP providers at a competitive disadvantage with respect to their carrier counterparts?

14. *Certification of Robocall Mitigation Database Filing.* The recently-established Robocall Mitigation Database serves as another important resource in the fight against illegal robocalling.⁴⁸ To support this effort, we propose to require an applicant for direct access authorization to (1) certify that it has filed in the Robocall Mitigation Database and (2) to certify that it has either (A) fully implemented the STIR/SHAKEN caller ID authentication protocols and framework or (B) that it has implemented either STIR/SHAKEN caller ID authentication or a robocall mitigation program for all calls for which it acts as a voice service provider.⁴⁹ If the applicant relies in part or whole on a robocall mitigation program, we further propose to require it to certify that it has described in the Database the detailed steps it is taking regarding number use that can reasonably be expected to reduce the origination and transmission of illegal robocalls.⁵⁰ We seek comment on our proposal. We believe that requiring this certification as part of a direct access application is another important step the Commission can take in protecting consumers from unwanted robocalls; a provider that is noncompliant with its Robocall Mitigation Database obligations may be more likely to use numbers for improper purposes, and applying our Robocall Mitigation Database rules to those providers not otherwise subject to them as a prerequisite for number access will promote trust in the assignment and use of numbers. Do commenters agree? Should the

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[events/press-releases/2020/04/ftc-fcc-send-joint-letters-voip-service-providers-warning-against](https://www.fcc.gov/press-releases/2020/04/ftc-fcc-send-joint-letters-voip-service-providers-warning-against) (describing letters sent to VoIP providers warning them that “assisting and facilitating” illegal telemarketing or robocalling is against the law).

⁴⁶ A direct access applicant may already be subject to these or similar requirements under existing Commission rule. *See, e.g.*, 47 CFR §§ 64.1200(n), 64.6302(b), 64.6305(a)(1). We believe the requirements we propose today are appropriate because they introduce additional trust into the assignment and use of telephone numbers; ensure that any entities not subject to our existing rules that seek direct access are not the source of illegal robocalls; and because they add another avenue for enforcement against bad actors.

⁴⁷ *See TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3295-96, paras. 127, 130 (seeking comment on a “know your customer” certification for direct access applicants, and its effects on different technologies, including interconnected VoIP providers); *see also* Wireline Competition Bureau Issues Caller ID Authentication Best Practices, WC Docket Nos. 17-97, 20-234, Public Notice, 35 FCC Rcd 14726, 14730, paras. 11-12 (WCB 2020) (describing subscriber vetting as a best practice that providers of voice service may adopt as part of their implementation of effective call authentication frameworks).

⁴⁸ Wireline Competition Bureau Announces Opening of Robocall Mitigation Database and Provides Filing Instructions and Deadlines, WC Docket No. 17-97, Public Notice, DA 21-454 (WCB rel. Apr. 20, 2021), <https://docs.fcc.gov/public/attachments/DA-21-454A1.pdf>.

⁴⁹ *See* 47 CFR §§ 64.6301, 64.6305.

⁵⁰ *See id.*

Commission require an applicant to provide any additional documentation in support of this certification? What would be the benefits and costs of doing so? We also seek comment on whether there are any additional steps the Commission should take to help protect against misuse of numbering resources or other fraudulent activities involving telephone numbers.

15. In furtherance of our goals of protecting our numbering resources and preventing illegal robocalls, we also propose to require a direct access applicant or authorization holder to inform the Commission if the applicant or authorization holder is subject—either at the time of its application or after its filing or its grant—to a Commission, law enforcement, or regulatory agency action, investigation, or inquiry due to its robocall mitigation plan being deemed insufficient or problematic, or due to suspected unlawful robocalling or spoofing, and to acknowledge this requirement in its application. We seek comment on our proposal. We tentatively conclude that this acknowledgement and post-grant notification requirement is essential to ensure that both direct access applicants and authorization holders are working with the Commission to fight illegal robocalling and spoofing. We seek comment regarding the most effective way to accomplish the proposed post-authorization mandatory notification requirement, including on the appropriate method by which we should require notification to Commission staff.

16. *Public Safety Certification—911 and CALEA.* The Commission’s rules require direct access applicants to certify that they comply with a number of requirements, including 911 obligations pursuant to our rules.⁵¹ The Commission’s rules also require interconnected VoIP providers to provide Enhanced 911 service, as well as the ability to provide Public Safety Answering Points with a caller’s location and a call-back number for each 911 call.⁵² Interconnected VoIP providers also must comply with the Communications Assistance for Law Enforcement Act (CALEA).⁵³ In furtherance of our public safety goals and consistent with these requirements, we propose to require direct access applicants to certify that they are compliant with 911 service and CALEA requirements, and to provide documentation to support proof of compliance. We seek comment on this proposal. We also seek comment on whether there is additional documentation or information we should require. For example, technical specifications and call-flow diagrams have been helpful to Commission staff in assessing direct access applicants’ compliance with 911 service and CALEA requirements in some cases. Would requiring such documentation be unduly burdensome or put interconnected VoIP providers at a competitive disadvantage? If so, how? We also seek comment on whether there are any additional public safety certifications or acknowledgements that we should require as part of the direct access application process. Finally, we seek comment on whether and how we should obtain these proposed certifications from interconnected VoIP providers holding an existing Commission authorization for direct access to numbers.

17. *Access Stimulation Acknowledgement.* To support our longstanding efforts to combat access stimulation,⁵⁴ we seek comment on any changes we should make to our direct access authorization

⁵¹ See 47 CFR § 52.15(g)(3)(i)(E); see also 47 CFR pt. 9.

⁵² See 47 CFR § 9.11; see also *Implementing Kari’s Law and Section 506 of RAY BAUM’s Act*, et. al, Report and Order, 34 FCC Rcd 6607, 6608-08, paras. 3-4 (2019).

⁵³ See *Communications Assistance for Law Enforcement Act and Broadband Access and Services*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 14989, 14989, para. 1 (2005).

⁵⁴ See *AT&T Corp., AT&T Services, Inc., and MCI Communications Services LLC v. Wide Voice, LLC*, Memorandum Opinion and Order, EB Docket No. 20-362, FCC 21-68, at 3, para. 8 (EB 2021); *8YY Access Charge Reform*, WC Docket No. 18-156, Report and Order, 35 FCC Rcd 11594 (2020) (adopting rules to address originating access charge arbitrage); *Updating the Intercarrier Compensation Regime to Eliminate Access Arbitrage*, WC Docket No. 18-155, Report and Order and Modification of Section 214 Authorizations, 34 FCC Rcd 9035 (2019) *aff’d*, *Great Lakes Communications Corp. v. FCC*, No. 19-1233 (D.C. Cir. July 9, 2021) (*Access Arbitrage Order*) (making access stimulators responsible for the terminating access charges they impose on long distance carriers); *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice

(continued....)

rules to help eliminate access stimulation. Access stimulation creates call congestion,⁵⁵ can disrupt telecommunications networks, and ultimately results in increased costs to consumers.⁵⁶ In a recent complaint proceeding, the Commission found that the subject of the complaint had inserted an interconnected VoIP provider “into the call path for the sole purpose of avoiding the financial obligations that accompany the Commission’s access stimulation rules.”⁵⁷ We seek comment on any changes to our VoIP direct access rules that could help prevent a similar situation from arising. For example, should we require an applicant for direct access authorization to certify that it will not use its numbering resources to evade our access stimulation rules?⁵⁸ Or should we require an applicant for direct access authorization to consent to treatment as a local exchange carrier serving end users for purposes of the Commission’s access stimulation rules?⁵⁹ Should we instead require each applicant to certify that its traffic will be included in the call ratio calculations of any local exchange carrier it delivers traffic to for purposes of the access stimulation definition in section 61.3 of the Commission’s rules?⁶⁰ Should direct access to number applicants certify that the VoIP numbers they are applying for will only be used to provide interconnected VoIP services as opposed to for example, application-based services?⁶¹ What would be the benefits of any such requirements? Would there be unintended consequences of any of these requirements? What burdens would these proposals, and other alternatives commenters may suggest, impose on interconnected VoIP providers? Would adoption of rules addressing interconnected VoIP providers’ role in access arbitrage schemes put interconnected VoIP providers at a competitive disadvantage with respect to their carrier counterparts?

18. *Clarification of Form 477 and 499 Filings.* Interconnected VoIP providers that have qualifying subscribers must file Forms 477 and 499, and we propose to clarify that as such, they must file proof of compliance with these Commission filing requirements, and any successor filing requirements, when applicable, such as the Broadband Data Collection (BDC), as part of the direct access application process.⁶² Currently, Commission staff independently check for compliance and follow-up with non-compliant applicants on a case-by-case basis. While this requirement is referenced in the *VoIP Direct*

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of Proposed Rulemaking, 26 FCC Rcd 17663 (2011) *aff’d*, *In re FCC 11-161*, 735 F.3d 1015 (10th Cir. 2014), *cert. denied*, 135 S. Ct. 2050 and 135 S. Ct. 2072 (2015) (reducing the financial incentives to engage in access arbitrage).

⁵⁵ See 47 CFR § 61.3(bbb); *see also Access Arbitrage Order*, 34 FCC Rcd at 9036, para. 1 (describing access arbitrage as the practice when local exchange carriers stimulate terminating call volumes through arrangements with entities that offer high-volume calling services in order to artificially increase their access charge revenues).

⁵⁶ *Access Arbitrage Order*, 34 FCC Rcd at 9036, paras. 2-3.

⁵⁷ See *AT&T Corp., AT&T Services, Inc., and MCI Communications Services LLC v. Wide Voice, LLC*, Memorandum Opinion and Order, EB Docket No. 20-362, FCC 21-68, at 14-15, para. 31 (EB 2021).

⁵⁸ 47 CFR § 61.3(bbb).

⁵⁹ *Id.*

⁶⁰ See Letter from Lauren Coppola, on behalf of CarrierX, LLC, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-155 (filed May 19, 2021); Letter from Matthew S. DeNero and Thomas G. Parisi, Counsel to Inteliquent, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 18-155 (filed Apr. 30, 2021).

⁶¹ See Reply Comments of HD Tandem, WC Docket No. 18-155, at 12-13 (filed Aug. 3, 2018).

⁶² See *Establishing the Digital Opportunity Data Collection and Modernizing the FCC Form 477 Data Program*, Report and Order and Second Further Notice of Proposed Rulemaking, 34 FCC Rcd 7505, 7507, para. 5 (2019); *see also Wireline Competition Bureau Releases the 2021 Telecommunications Reporting Worksheets and Accompanying Instructions*, Public Notice, WC Docket No. 06-122, DA 20-1410 at 1, n. 1 (rel. Nov. 30, 2020) (“[T]he Commission requires telecommunications carriers and certain other providers of telecommunications (including Voice-over-Internet-Protocol (VoIP) service providers) to report each year on the FCC Form 499-A the revenues they receive from offering service.”).

Access Order,⁶³ many applicants have expressed confusion regarding the requirement and the necessity of filing both forms as an interconnected VoIP provider with qualifying subscribers. For this reason, we propose to make explicit in our rules that an interconnected VoIP provider that has qualifying subscribers and is required to file Forms 477 and 499 must provide evidence of compliance with completing these forms, and any successor filing requirements, when applicable, in its application.

19. *Technical Information for Proof of Interconnected VoIP Service; Facilities Readiness Requirement.* We propose to require a direct access applicant to provide sufficient technical documentation and information that clearly demonstrates that it will provide interconnected VoIP services, as opposed to one-way or non-interconnected VoIP services, and seek comment on our proposal.⁶⁴ What specific types of information should we require? What burden would requiring submission of such technical information place on the applicant? In the alternative or in addition, should we require a certification from the applicant that it provides interconnected VoIP service?

20. Further, as noted above, our rules require that an applicant seeking direct access provide proof that it is capable of providing service within sixty days of the numbering resource activation date (“facilities readiness”).⁶⁵ In the *VoIP Direct Access Order*, the Commission explained that applicants can achieve this through the submission of commercial agreements, specifically by (1) providing a combination of an agreement between the interconnected VoIP provider and its carrier partner and an interconnection agreement between that carrier and the relevant local exchange carrier (LEC), or (2) proof that the interconnected VoIP provider obtains interconnection with the Public Switched Telephone Network (PSTN) pursuant to a tariffed offering or a commercial arrangement (such as a TDM-to-IP or a VoIP interconnection agreement) that provides access to the PSTN.⁶⁶ We have seen that some applicants do not submit commercial agreements or contracts that clearly illustrate their interconnection with the PSTN. We seek comment on whether we should dispel any confusion by specifying the types of documentation that we permit applicants to submit in the text of the rule. Are there other types of documents or information that we should permit applicants to file? We emphasize that unless and until we effect any change to our rules, VoIP direct access to numbers applicants must provide the requisite agreements to demonstrate that they meet the facilities readiness requirement.

21. *Other.* Aside from the categories of possible certifications and information discussed above, are there other certifications or information that we should consider requiring applicants to submit as part of the direct access application process to effectively protect numbering resources and the public? If so, what certifications or information should we require?

22. *Truthful Certifications.* We remind applicants that Commission rules prohibit applicants for any Commission authorization from intentionally providing incorrect material factual information or intentionally omitting material information that is necessary to prevent any material factual statement from being incorrect or misleading.⁶⁷ To the extent that there is any doubt, we propose to clarify that

⁶³ See *VoIP Direct Access Order*, 30 FCC Rcd at 6858, para. 39, n. 131 (“Bureau staff will also verify that the applicant filed its Form 477 and Form 499 forms, if applicable.”).

⁶⁴ See 47 CFR § 9.3 (“An interconnected Voice over Internet Protocol (VoIP) service is a service that: (i) enables real-time, two-way voice communications; (ii) requires a broadband connection from the user's location; (iii) requires internet protocol-compatible customer premises equipment (CPE); and (iv) permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.”).

⁶⁵ See 47 CFR § 52.15(g)(3)(i)(D).

⁶⁶ See *VoIP Direct Access Order*, 30 FCC Rcd at 6856-57, para. 37.

⁶⁷ 47 CFR § 1.17(a)(1). Our rules also prohibit applicants from providing material factual information that is incorrect (or omitting material information that is necessary to prevent any material factual statement that is made from being incorrect or misleading “without a reasonable basis for believing that any such material factual statement is correct and not misleading.”). 47 CFR § 1.17(a)(2).

false certifications or statements made to the Commission may result in denial of a direct access application or revocation of authorization, and we propose to direct the Bureau to deny an application or begin the revocation process if it discovers that an applicant made a false statement. We seek comment on this proposal. Should we permit applicants or authorization holders an opportunity to correct mistaken certifications or other statements if made inadvertently and timely reported to Commission staff? Would an opportunity to cure a false certification run counter to the intent behind making a certification in the first place? In addition to potential denial of an application or revocation, a misrepresentation or lack of candor by an applicant may result in a forfeiture and/or other penalties.⁶⁸ To further ensure accuracy, should we require an officer or responsible official to submit a declaration under penalty of perjury pursuant to section 1.16 of our rules attesting that all statements in the application and any appendices are true and accurate?⁶⁹

B. Foreign Ownership

23. Since the 2015 adoption of the *VoIP Direct Access Order*, a number of providers with substantial foreign ownership have applied to obtain direct access to numbering resources.⁷⁰ Allowing these providers direct access to numbers and critical numbering databases raises a number of potential risks, including the impact to number conservation requirements; questions related to jurisdiction, oversight, and enforcement of numbering rules; consideration of assessment of taxes and fees upon foreign-owned entities; and potential national security and law enforcement risks with access to U.S. telecommunications network operations.⁷¹ The rules adopted in the *VoIP Direct Access Order* do not specifically require providers to disclose their ownership in the application process, nor do they establish specific procedures or processes by which to evaluate applications with substantial foreign ownership. It

⁶⁸ 47 CFR § 1.80 table 1.

⁶⁹ 47 CFR § 1.16.

⁷⁰ See, e.g., Application of Mitel Cloud Services, Inc. for Authorization to Obtain Numbering Resources, WC Docket No. 20-149 (filed May 19, 2020), <https://www.fcc.gov/ecfs/filing/105190855208032> (Mitel Application) (subsequently withdrawn); see also *Joint Application of MLN TopCo Ltd., Mitel Networks Corporation, and Mitel Cloud Services, Inc. f/k/a/ Mitel NetSolutions, Inc for Assignment or Transfer of Control of International Section 214 Authorizations*, Attachment 1 at 2-4, ITC-T/C-20190517-00094 (filed May 17, 2018), https://licensing.fcc.gov/myibfs/download.do?attachment_key=1403175 (disclosing that MLN TopCo Ltd is a Cayman Islands exempted company and a wholly owned subsidiary of Searchlight II MLN, L.P., a Cayman Islands exempted limited partnership, and that post transaction, Applicant will be a wholly owned direct subsidiary of MLN TopCo Ltd through a number of intermediate holding companies) (Mitel Int'l 214 Attachment); Application of Simwood, Inc. for Authorization to Obtain Numbering Resources, WC Docket No. 19-96 (filed March 25, 2019), <https://www.fcc.gov/ecfs/filing/103250408620404> (Simwood Application); see also *Application of Simwood, Inc., for International Section 214 License*, Attachment 2 at 2, ITC-214-20181120-00222, (filed Nov. 11, 2018), https://licensing.fcc.gov/myibfs/download.do?attachment_key=1577583 (describing applicant's United Kingdom foreign ownership at 10% or greater via Simwood's parent company Simwood Group, PLC and overlapping director Simon Woodhead) (Simwood International 214 Application)); Application of NobelBiz for Authorization to Obtain Numbering Resources, WC Docket No. 20-385 (filed Nov. 10, 2020), <https://www.fcc.gov/ecfs/filing/1110286733148> (NobelBiz Application); Supplement to NobelBiz Application, WC Docket No. 20-385 (filed Feb. 19, 2021), <https://www.fcc.gov/ecfs/filing/10219635126636> (NobelBiz Supplement); Application of TRUSTID for Authorization to Obtain Numbering Resources, WC Docket No. 20-132 (filed May 7, 2020), <https://www.fcc.gov/ecfs/filing/1050732674916> (TRUSTID Application); see also TRUSTID Application at 2 (TRUSTID is a subsidiary of Neustar, Inc.); *Number Resource Optimization et al.*, Memorandum Opinion and Order, 32 FCC Rcd 5855, 5856, paras. 1-2, n.1, 9 (2017) (describing Hux Investment Pte. Ltd., also referred to as "GIC Investor," as a "private limited company organized under the laws of Singapore" that has approximately 31% ownership interest in Neustar).

⁷¹ North American Numbering Council, Report on Foreign Ownership of Interconnected Voice over Internet Protocol Applicants, at 3-5 (Jun. 29, 2017) (NANC Report on Foreign Ownership), http://nanc-chair.org/docs/mtg_docs/Jun17_NANC_Report_on_Foreign_Ownership_of_Interconnected_VOIP_Applicants.pdf.

is vital that our rules governing VoIP providers' ability to obtain direct access to numbering resources address the risk of providing access to our numbering resources and databases to bad actors abroad.⁷² The Commission has, in its discretion, referred direct access to numbering applications with substantial foreign ownership to the relevant Executive Branch agencies for their review of and recommendations on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership.⁷³ Today, we propose to revise our rules to formalize that process to remove applications with reportable foreign ownership from streamlined processing.

24. To identify which applicants have foreign owners, we propose to require applicants for a Commission direct access authorization to disclose information, including the name, address, country of citizenship, and principal business of every person or entity that directly or indirectly owns at least 10 percent of the equity and/or voting interest, or a controlling interest, of the applicant, and the percentage of equity and/or voting interest owned by each of those entities to the nearest one percent. We also propose that the applicant identify any interlocking directorates with a foreign carrier. We seek comment on these proposals. We tentatively conclude that applicants must disclose any 10 percent or greater ownership interests, including 10 percent or greater foreign ownership interests. We believe this is appropriate because it mirrors the disclosure required for domestic section 214 transfer of control applications and for applicants seeking an international section 214 authorization, as required by section 63.18 of the Commission's rules.⁷⁴ Additionally, using the same threshold here as in the section 214 context serves the public interest because, in each case, we must ensure that ownership chains do not pose national security or law enforcement risks to the United States and its communications infrastructure. We seek comment on this tentative conclusion. Do commenters agree with this analysis? If not, what factors render the direct access to numbering applications different than applications to transfer authorizations to provide domestic common carrier service? Should the foreign ownership reporting obligations be triggered at a level lower than 10 percent or higher than 10 percent? We propose to adopt the calculations that section 63.18(h) uses for attribution of indirect ownership interests for direct access to numbering applicants.⁷⁵ We seek comment on this proposal. Should we use different calculations for determining indirect ownership than those used in section 63.18(h)? If so, why, and what calculations should we use? Should we use aggregate foreign ownership rather than individual ownership? If so, at what level of aggregate foreign ownership should we require disclosure? We also specifically seek comment on the burdens of imposing these potential requirements on applicants for numbering resources, particularly on small businesses.

25. We also propose to require applicants for direct access to numbers to certify in their applications "as to whether or not the applicant is, or is affiliated with, a foreign carrier," analogous to the certification required in section 63.18(i) for applicants for international section 214 authority.⁷⁶ We seek comment on our proposal. Section 63.18(i) requires the certification to "state with specificity each

⁷² See *Advanced Methods to Target and Eliminate Unlawful Robocalls et al.*, CG Docket No. 17-59 et al., Declaratory Ruling and Third Further Notice of Proposed Rulemaking, 34 FCC Rcd 4876, 4902, para. 82 (2019) ("Illegal robocalling often originates from sources outside the United States.").

⁷³ *Process Reform for Executive Branch Review of Certain FCC Applications and Petitions Involving Foreign Ownership*, IB Docket No. 16-155, Report and Order, 35 FCC Rcd 10927, 10935-36, para. 24 & n.55 (2020) (*Executive Branch Review Order*); Erratum (Appendix B – Final Rules), DA 20-1404 (OMD/IB rel. Nov. 27, 2020) (*Executive Branch Review Order Erratum*) ("The Commission retains the discretion to refer additional types of applications if we find that the specific circumstances of an application require the input of the Executive Branch as part of our public interest determination of whether an application presents national security, law enforcement, foreign policy, or trade policy concerns."); 47 CFR § 1.40001(a).

⁷⁴ See 47 CFR §§ 63.04(a)(4), 63.18(h).

⁷⁵ 47 CFR §§ 63.18(h); see also *Executive Branch Review Order Erratum*.

⁷⁶ 47 CFR § 63.18(i). An "affiliated" carrier is defined in 47 CFR § 63.09(e).

foreign country in which the applicant is, or is affiliated with, a foreign carrier.”⁷⁷ Would a similar certification for numbering resource applicants be in the public interest? Would such a certification provide information or confirmation not already included in the disclosure requirement? Would such a requirement in addition to the disclosure requirement be unduly burdensome to applicants?

26. The use of numbering resources by foreign entities may raise national security, law enforcement, foreign policy, or trade policy concerns.⁷⁸ Consequently, we propose to direct the International Bureau, in coordination with the Wireline Competition Bureau, to generally refer applications with reportable foreign ownership—10% or greater direct or indirect ownership that is not a U.S. citizen or U.S. business entity—to the Executive Branch agencies for their views on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership of the applicant consistent with our referral of other applications.⁷⁹ On October 1, 2020, the Commission released the *Executive Branch Review Order*⁸⁰ delineating the types of applications the Commission will refer to the Executive Branch agencies and formalizing the review process and time frames, consistent with Executive Order No. 13913 (April 4, 2020), which established the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector (the Committee). The Executive Order also established various procedures, including specific time frames, for Executive Branch review of applications referred by the Commission.⁸¹ Pursuant to the *Executive Branch Review Order*, the Commission, in its discretion, recently has referred a number of direct access to numbering applications where there is substantial foreign ownership of the applicant to the Committee.⁸² Rather than refer under the Commission’s discretionary authority, we propose to revise our rules and to generally require referral to the Executive Branch agencies of all direct access to numbering applications with reportable foreign ownership pursuant to Subpart CC of Part 1 of the Commission’s rules.⁸³ Accordingly, we propose to revise our rules to remove applications with reportable foreign ownership from streamlined processing.⁸⁴ We seek comment on this proposal.

27. We propose that, we use the same procedures established by the Commission in the *Executive Branch Review Order* when we refer a direct access to numbering application to the Executive

⁷⁷ 47 CFR § 63.18(i).

⁷⁸ For example, late last year, the Department of Justice (DOJ) filed a first-of-its-kind criminal indictment in the prosecution of a foreign VoIP provider and its director for allegedly facilitating millions of fraudulent robocalls targeting US consumers. The fraudulent scheme allegedly involved foreign callers impersonating U.S. government officials (among other tactics). See <https://www.justice.gov/usao-ndga/pr/india-based-voip-provider-and-its-director-indicted-facilitating-millions-scam>.

⁷⁹ See 47 CFR § 1.40001; see also *Executive Branch Review Order*, 35 FCC Rcd 10927; *Executive Branch Review Order Erratum*.

⁸⁰ *Executive Branch Review Order*, 35 FCC Rcd at 10935-36, para. 24.

⁸¹ Executive Order No. 13913, Establishing the Committee for the Assessment of Foreign Participation in the United States Telecommunications Services Sector, 85 FR 19643 (April 8, 2020) (stating that “[t]he security, integrity, and availability of United States telecommunications networks are vital to United States national security and law enforcement interests”).

⁸² See *Executive Branch Review Order*, 35 FCC Rcd at 10935-36, para. 24 & n.55 (“The Commission retains the discretion to refer additional types of applications if we find that the specific circumstances of an application require the input of the Executive Branch as part of our public interest determination of whether an application presents national security, law enforcement, foreign policy, or trade policy concerns.”); 47 CFR § 1.40001(a); see also, e.g., *Simwood Public Notice* at 2 (stating that “we are referring the Application to the relevant Executive Branch agencies for their views on any national security, law enforcement, foreign policy, or trade policy concerns related to the foreign ownership of the applicant”).

⁸³ 47 CFR §§ 1.40001-1.40004.

⁸⁴ *Executive Branch Review Order*, 35 FCC Rcd at 10935-38, paras. 24-28.

Branch agencies, including the 120-day initial review period, and 90-day secondary review period.⁸⁵ As set forth in Executive Order No. 13913, the 120-day review period will begin when the Attorney General, the Chair of the Committee, determines that an applicant's responses are complete.⁸⁶ We seek comment on this proposal. We also seek comment on alternative procedures for Executive Branch review of direct access to numbering applications. Should we consider different review periods, or no review period, in light of the fact that Executive Branch review of direct access to numbering applications is less established than Executive Branch review of section 214 authorizations or other types of applications?

28. The International Bureau, as directed by the Commission in the *Executive Branch Review Order*, is currently in the process of adopting a standardized set of national security and law enforcement questions (Standard Questions) "that proponents of certain applications and petitions involving reportable foreign ownership will be required to answer as part of the review process."⁸⁷ We seek comment on whether we should develop Standard Questions for direct access to numbering applicants. Should we direct the International Bureau, in coordination with the Wireline Competition Bureau, to draft, update as appropriate, and make available on a publicly available website, the Standard Questions that elicit the information needed by the Committee within those categories of information? By having an applicant file responses to Standard Questions with the Committee at the same time as the applicant files its application with the Commission, the Committee can begin its review of the application sooner and complete its review in a more timely manner.⁸⁸ Should we employ the same procedures as in the *Executive Branch Review Order*—adopting the categories of information that will be required from applicants, rather than specific questions? If we were to adopt Standard Questions, should we require applicants to file their responses to the Standard Questions with the Committee prior to or at the same time they file their applications with the Commission?

29. We also seek comment on alternatives to the development and use of Standard Questions for direct access to numbering applications. We recognize that the Executive Agencies may have less experience evaluating direct access to numbering applications than other types of applications (such as section 214 applications), and they may identify different national security or law enforcement risks in direct access to numbering applications than the ones associated with other types of applications (such as section 214 applications).

C. Post-Grant Ownership Changes

30. In the *VoIP Direct Access Order*, the Commission required each interconnected VoIP provider that has obtained direct access to numbers to maintain the accuracy of all contact information and certifications in its application and file a correction with the Commission and each applicable state within thirty (30) days of the change of contact information or certification.⁸⁹ We propose clarifying that VoIP providers that have received direct access to numbers must also submit an update to the Commission and each applicable state within 30 days of any change to the ownership information submitted to the Commission, including any change to the name, address, citizenship and/or principal business of any person or entity that directly or indirectly owns at least ten percent of the equity or voting

⁸⁵ *Id.* at 10942-45, 10955-59, paras. 40-47, 76-84.

⁸⁶ Executive Order No. 13913, Sec. 5(b)(iii), 85 Fed. Reg at 19645 ("[A]ny initial review shall be completed before the end of the 120-day period beginning on the date the Chair determines that the applicant's responses to any questions and information requests from the Committee are complete."); *see also Executive Branch Review Order*, 35 FCC Rcd at 10958, para. 82.

⁸⁷ *See International Bureau Seeks Comment on Standard Questions for Applicants Whose Applications Will be Referred to the Executive Branch for Review Due to Foreign Ownership*, IB Docket Nos. 16-155, Public Notice, 35 FCC Rcd 14906 (IB 2020).

⁸⁸ *Executive Branch Review Order*, 35 FCC Rcd at 10941-42, paras. 40-41.

⁸⁹ 47 CFR § 52.15(g)(3)(iv)(A); *VoIP Direct Access Order*, 30 FCC Rcd at 6859, para. 53.

interests, or a controlling interest of the applicant, or to the percentage of equity and/or voting interests held by each of those entities. We preliminarily believe that obtaining such updates will help us to ensure that the ownership does not change post-authorization in a manner that evades the purpose of application review, for instance by introducing a bad actor-owner that facilitates unlawful robocalling, poses a threat to national security, evades or abuses intercarrier compensation requirements, or otherwise engages in conduct detrimental to the public interest. We seek comment on this proposal. Are there other benefits to receiving updated ownership information? What are the costs to providers or others of updating the Commission and applicable states, particularly on small businesses? As with updated contact and certification information, we propose to clarify that the Commission may use updated ownership information to determine whether a change in authorization status is warranted.⁹⁰ We seek comment on our proposal. We also propose to delegate authority to the Bureau to direct the Numbering Administrator to suspend number requests if the Bureau determines that further review of the authorization is necessary.

31. We seek comment on whether we should expand, contract, or alter the specific scope of information we propose to require. Should we require updates on information that does not appear in the underlying application, and if so what information? We also seek comment on whether we should establish a materiality threshold for updates so that we do not burden VoIP providers with submitting updates that are unlikely to be important. For instance, should we require providers to update the ownership percentage of specific entities whose ownership has already been disclosed to the Commission only if that change exceeds a numerical threshold, such as an increase or decrease of 10% or more of total ownership interest?

32. We seek comment on whether we should specify the method of filing or format for post-authorization updates regarding changes to contact information, certifications, and ownership information. The *VoIP Direct Access Order* and the rules adopted by the Commission in that Order do not specify how providers should submit updates. We propose requiring providers to submit any required post-authorization updates to the Commission via the “Submit a Non-Docketed Filing” module in ECFS established for the VoIP Direct Access proceeding (Inbox—52.15 VoIP Numbering Authorization Application) and via email to DAA@fcc.gov, our email alias for VoIP direct access to numbers applications. We preliminarily believe that this approach will facilitate informed and timely review by interested members of the public and Commission staff, and we seek comment on this proposal. Should we specify the means by which applicants must update applicable states, and if so how? Should we require applicants to submit diagrams illustrating their ownership structure with their applications and with any required post-application updates?

D. Compliance with State Law

33. As the Commission has explained, requiring interconnected VoIP providers that obtain numbers directly from the Numbering Administrator to comply with the same numbering requirements as carriers will help “ensure competitive neutrality among providers of voice services.”⁹¹ As a condition of obtaining a Commission authorization, interconnected VoIP providers must “comply with guidelines and procedures adopted pursuant to numbering authority delegated to the states.”⁹² The 2015 *VoIP Direct Access Order* references requiring compliance with specific forms of numbering authority delegated to the states with respect to number reclamation, area code relief, and thousands-block pooling.⁹³ Because

⁹⁰ See 47 CFR § 52.15(g)(3)(iv)(A).

⁹¹ *VoIP Direct Access Order*, 30 FCC Rcd at 6852-53, para. 28.

⁹² *Id.* at 6850, para. 24.

⁹³ See *id.* at 6852, n.88 (explaining that the Commission has delegated state commission authorization over number reclamation (47 CFR § 52.15(i)), and given them access to the semi-annual NRUF reports, as well as carriers’ applications for initial and additional number resources (47 CFR §§ 52.15(f)(7), (g)(5)), and has also delegated to state commissions the authority to affirm or overturn a Numbering Administrator’s decision to withhold numbers from a carrier, and to implement thousands-block number pooling (47 CFR § 52.15(g)(3)(B)(iv), (g)(4))).

of that reference, there has been some confusion regarding whether interconnected VoIP providers with direct access to numbers must comply with state requirements other than those specifically identified in the Order. We seek comment whether we should revise our existing rules to clarify that interconnected VoIP providers holding a Commission numbering authorization must comply with state numbering requirements and other applicable requirements for businesses operating in the state. Is the fact that some interconnected VoIP providers provision non-fixed, or nomadic, services relevant in determining compliance with state requirements? We also seek comment on whether we should require minimal state contacts to obtain numbering resources in a particular state.⁹⁴ Finally, we seek comment whether it is necessary to clarify that the Bureau may direct the Numbering Administrator to deny requests for numbers from an interconnected VoIP provider that has failed to comply with state requirements.⁹⁵

E. Bureau Authority to Review Applications

34. We also propose to clarify that even once the procedural requirements have been met, the Bureau retains the authority to determine when an application is ready to be put out on an Accepted-for-Filing Public Notice based on public interest considerations, subject to the limits of the Administrative Procedure Act.⁹⁶ We seek comment on our proposal. The *VoIP Direct Access Order* requires Bureau staff to review VoIP Numbering Authorization Applications for conformance with procedural rules, and “assuming the applicant satisfies this initial procedural rule,” then directs the Bureau staff to “assign the application its own case-specific docket number and release an ‘Accepted-For-Filing Public Notice,’ seeking comment on the application.”⁹⁷ The Commission’s rules permit the Bureau to halt the auto-grant process for a number of reasons, including when “the Bureau determines that the request requires further analysis to determine whether a request of authorization for direct access to numbers would serve the public interest.”⁹⁸ Though we believe the Commission and the Bureau currently have the authority to withhold placing an application on streamlined processing that meets procedural requirements if the application raises public interest concerns, including concerns regarding illegal robocalling, arbitrage, and foreign ownership, we propose to make this authority explicit.

35. The Commission directed and delegated authority to the Bureau “to implement and maintain the authorization process.”⁹⁹ The technological development and exponential growth of IP-based services has many potential benefits to consumers, including the development of innovative products and services and competitive pricing for such services.¹⁰⁰ However, coupled with that

⁹⁴ See, e.g., *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3295, para. 127.

⁹⁵ We note that we do not propose to address classification of interconnected VoIP services or states’ general authority to regulate interconnected VoIP service, and we view these matters as beyond the scope of this proceeding.

⁹⁶ See, e.g., 5 U.S.C. § 706(1).

⁹⁷ *VoIP Direct Access Order*, 30 FCC Rcd at 6858, para. 39.

⁹⁸ *Id.* at 6858, para. 40.

⁹⁹ *Id.* at 6849, para. 22; see also *id.* at 6857, para. 38 (“We delegate authority to the Bureau to oversee this mechanism and the process of these applications.”); *id.* at 6858, para. 40 (“[W]e also delegate authority to the Bureau to make inquiries and compel responses from an applicant regarding the applicant and its principals; past compliance with applicable Commission rules.”); *id.* at 6865, para. 53 (“We delegate authority to the Wireline Competition and Enforcement Bureaus to order the revocation of authorization and to direct the Numbering Administrators to reclaim any of the service provider’s unassigned numbers.”); *id.* at 6849, n.70 (“This Report and Order’s delegation of authority to the Wireline Competition Bureau is limited to the specific delegations made in [sic] herein. Unless otherwise within the scope of the Bureau’s delegated authority, matters pertaining to the process for authorizing direct access to numbers for interconnected VoIP providers will be decided by the full Commission.”).

¹⁰⁰ See, e.g., *Call Authentication Trust Anchor*, WC Docket No. 17-97, Second Report and Order, 36 FCC Rcd 1859, 1862, para. 5 (2020) (“As the telecommunications industry has advanced and expanded into IP-based telephony, costs have decreased as competition increased, benefitting consumers greatly.”).

innovation is an increase in the ease with which bad actors can engage in harmful and illegal robocalling and other fraudulent activity.¹⁰¹ The ease with which bad actors are able to form new entities, coupled with the rise in illegal and harmful robocalling since the adoption of the *VoIP Direct Access Order* in 2015, counsels us to propose clarifying explicitly that we delegate authority to the Bureau to determine at its discretion when it is appropriate to release an Accepted-For-Filing Public Notice, based on public interest considerations. We seek comment on this proposal. We propose clarifying that the Bureau may withhold issuance of an Accepted-for-Filing Public Notice based on, for instance, concerns regarding an applicant's (or an applicant's principals or owner's) involvement in illegal or harmful robocalling schemes or regulatory arbitrage. We seek comment on our proposal.

36. We also propose to explicitly delegate authority to the Bureau to reject an application for authorization for direct access to numbers if any applicant (or its owners or affiliates) has engaged in behavior contrary to public interest or been found to originate or transmit illegal robocalls by the Commission, industry-led registered consortium, or state or federal authorities. The Commission has already found that "at the Bureau's discretion, certain past violations may serve as a basis for denial of an application, such as, for example, repeated or egregious violations or instances of fraud or misrepresentation to the Commission."¹⁰² We propose to clarify the Commission's existing delegation to confirm that the Bureau may reject an application, at its discretion, by an entity which it has a reasonable basis to believe has engaged in behavior contrary to the public interest, including but not limited to, entity or entities that have been found to transmit illegal robocalls by the Commission, industry-led registered consortium, or state or federal authorities. We seek comment on this proposal. Should we adopt more specific rules or standards for when the Bureau rejects an application based on these reasons, and if so, what rules or standards should we adopt? We believe that this explicit delegation will enable the Commission to more effectively guard against bad actors gaining access to numbering resources, which then may be "stranded" by the taint of harmful robocalling and contribute to number exhaust. Do commenters agree?

37. The *VoIP Direct Access Order* states that the Commission may revoke direct access to numbers for failure to comply with the Commission's numbering rules.¹⁰³ We propose clarifying that the Commission may also revoke authorization for failure to comply with any applicable law, where a provider no longer meets the qualifications that originally provided the basis for the grant of direct access to numbers, or where the authorization no longer serves the public interest (e.g., due to a national security risk or risk of originating numerous unlawful robocalls), and we seek comment on this proposal. In our preliminary view, revoking authorization in such circumstances is appropriate to protect the public and preserve the limited pool of numbers. To facilitate efficient revocation where necessary, we propose to delegate authority to the Bureau to revoke authorizations where warranted pursuant to the standards we establish.¹⁰⁴ We propose clarifying that if a provider's authorization is revoked, it may not obtain any

¹⁰¹ See, e.g., *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3243, para. 4 ("Technological advancements and marketplace developments in IP-based telephony have made caller ID spoofing easier and more affordable than ever before. Today, widely available Voice over Internet Protocol (VoIP) software allows malicious callers to make spoofed calls with minimal experience and cost. . . . Driven in part by the rise of VoIP, the telecommunications industry has transitioned from a limited number of carriers that all trusted each other to provide accurate caller origination information to a proliferation of different voice service providers and entities originating calls, which allows consumers to enjoy the benefits of far greater competition but also creates new ways for bad actors to undermine this trust.").

¹⁰² *VoIP Direct Access Order*, 22 FCC Rcd at 6858, n.133.

¹⁰³ *Id.* at 6852, 6865, paras. 28, 53.

¹⁰⁴ The Commission's Bureaus and Offices have revoked licenses and authorizations where warranted and within the scope of their authority. See, e.g., *Deane Brothers Broadcasting Corp., Licensee of WJDF(FM), Orange, Massachusetts*, File No. BLH-19950814KC, Revocation Order, 34 FCC Rcd 2151 (MB/OMD 2019) (revoking broadcast license for failure to pay delinquent regulatory fees); *Cox Broadcast Group, Inc., Licensee of WCGA(AM)*,

(continued....)

new numbers directly from the Numbering Administrator. Should we also require the provider to return numbers that it has already obtained directly, or would such a requirement be too disruptive to end-user customers? To provide VoIP providers subject to revocation with appropriate due process, we propose to require the Bureau to provide a party subject to revocation with notice setting forth the proposed basis for revocation and an opportunity to respond to the allegations prior to revoking authorization, consistent with the requirements in 5 U.S.C. § 558(c).¹⁰⁵ We also propose to clarify that the Bureau may direct the Numbering Administrator to defer action on new requests for numbers by a provider on an interim basis during the pendency of any investigation or review of corrections or updates submitted, or proceeding to revoke authorization, and we seek comment on this proposal. We view such interim authority as necessary to allow the agency to respond nimbly to new risks that emerge.

F. Expanding Direct Access to Numbering Resources

38. We seek comment whether we should expand the Commission's authorization process for direct access to numbers to one-way VoIP providers or other entities that use numbers. Currently, only interconnected VoIP providers may apply for and thereby receive a Commission authorization for direct access to numbers.¹⁰⁶ While the Commission stated that it "may consider permitting other types of entities to obtain numbers directly from the Numbering Administrators in the future," it declined to do so in the *VoIP Direct Access Order*, finding that it lacked an adequate record regarding the appropriate terms and conditions for obtaining numbers for entities other than interconnected VoIP providers.¹⁰⁷ We seek comment whether there is a need for direct access to numbering resources for entities other than interconnected VoIP providers, including one-way VoIP providers. How do one-way VoIP providers and other entities use numbering resources?

39. We seek comment on the potential benefits and risks of allowing one-way VoIP providers and other entities direct access to numbering resources. Would enabling such entities to request and directly access numbering resources promote competition among providers and services? What impact would enabling direct access to numbering resources for such entities have on number exhaust? We also seek comment on whether allowing other entities to access numbering resources directly could aid in enforcement efforts against illegal robocalling. Would enabling such entities direct access to numbering resources make it easier or harder to perform tracebacks and monitor bad actors? If the Commission were to permit other entities to apply for authorization for direct access to numbers, should the Commission impose the same conditions and requirements for access as it does for interconnected VoIP providers? If not, what requirements should we adopt? Our rules require interconnected VoIP providers, as a condition of maintaining their authorization for direct access to numbers to "continue to provide their customers the ability to access 911 and 711," and to "give their customers access to Commission-designated N11 numbers in use in a given rate center where an interconnected VoIP provider has requested numbering resources, to the extent that the provision of these dialing arrangements is technically feasible."¹⁰⁸ Are such requirements technically feasible for providers of one-way VoIP and other services? If not, would enabling such entities direct access to numbering resources cause customer

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Woodbine, Georgia, File Nos. BL-19970307AC, BR20111216ABF, 0000094688, Revocation Order, 35 FCC Rcd 574 (MB/OMD 2019) (same); *Acumen Communications et al.*, WT Docket No. 17-17, Revocation Order, 33 FCC Rcd 4 (EB 2018) (revoking Private Land Mobile Radio and microwave licenses for lack of qualifications to be a licensee and failure to respond); *LDC Telecommunications, Inc.*, File No. ITC-214-20080523-00238, Revocation Order, 31 FCC Rcd 11661 (EB/IB/WCB 2016) (revoking domestic and international section 214 authorizations for failure to pay regulatory fees).

¹⁰⁵ See 5 U.S.C. § 558(c).

¹⁰⁶ *VoIP Direct Access Order*, 30 FCC Rcd at 6877, para. 76.

¹⁰⁷ *Id.* at 6878, para. 77.

¹⁰⁸ *Id.* at 6861, para. 47.

confusion with respect to critical short dialing codes? Are there additional conditions that would be necessary to protect against illegal robocalling, number exhaust, and other public interest harms for one-way VoIP providers and other entities?

G. Expected Benefits and Costs

40. The proposals in this Further Notice generally reflect a mandate from the TRACED Act. We request comments on the relative costs and benefits of different means of achieving the goals mandated by the statute. With regard to benefits, the Commission found in the *TRACED Act Section 6(a) Order and Further Notice* that widespread deployment of STIR/SHAKEN will increase the effectiveness of the framework for both voice service providers and their subscribers, producing a potential benefit floor of \$13.5 billion due to the reduction in nuisance calls and fraud.¹⁰⁹ In addition, that Order identified many non-quantifiable benefits, such as restoring confidence in incoming calls¹¹⁰ and reliable access to emergency and healthcare communications.¹¹¹ The proposals in this Further Notice are intended, consistent with the TRACED Act, to make progress in unlocking those expected benefits, among others.

41. With regard to costs, we expect that the minimal costs imposed on applicants by our proposed clarification changes will be far exceeded by the benefit to consumers, which we estimate to be a substantial share of the \$13.5 billion annual benefit floor. Moreover, as the Commission stated in the *TRACED Act Section 6(a) Order and Further Notice*, an overall reduction in robocalls will greatly lower network costs by eliminating both the unwanted traffic and the labor costs of handling numerous customer complaints.¹¹² In addition, the proposed clarifications to the direct access application process will minimize staff time and review, thereby minimizing cost. We therefore tentatively conclude that the proposals in this Further Notice will impose only a minimal cost on direct access applicants while having the overall effect of lowering network costs and raising consumer benefits. We seek comment on this tentative conclusion. We also seek detailed comments on the costs of the proposals in this Further Notice. What are the costs associated with each proposed change? Will these costs vary according to the size of the direct access applicant? Do the benefits of our proposals outweigh the costs in each case?

H. Legal Authority

42. We propose concluding that section 251(e)(1) of the Communications Act of 1934, as amended (the Act), which grants us “exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States,” provides us with authority to adopt our proposals.¹¹³ In the *VoIP Direct Access Order*, the Commission concluded that section 251(e)(1) provided it with authority “to extend to interconnected VoIP providers both the rights and obligations associated with using telephone numbers.”¹¹⁴ The Commission also has relied on section 251(e)(1) to require interconnected and one-way VoIP providers to (1) implement the STIR/SHAKEN caller ID authentication framework and (2) allow customers to reach the National Suicide Prevention Lifeline by dialing 988 beginning no later than July 16, 2022.¹¹⁵ Consistent with the Commission’s well-established reliance on section 251(e) numbering authority with respect to VoIP providers, we propose concluding that section

¹⁰⁹ *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3263, paras. 47-48.

¹¹⁰ *Id.* at 3263-64, paras. 49-50.

¹¹¹ *Id.* at 3265-66, paras. 52-53.

¹¹² *Id.*

¹¹³ 47 U.S.C. § 251(e)(1).

¹¹⁴ *VoIP Direct Access Order*, 30 FCC Rcd at 6878, para. 78.

¹¹⁵ *See Implementation of the National Suicide Hotline Improvement Act of 2018*, WC Docket No. 18-336, Report and Order, 35 FCC Rcd 7373, 7394, para. 40 (2020) (988 Report and Order); *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3260-61, para. 42.

251(e)(1) allows us to further refine our processes governing direct access to numbers by interconnected VoIP providers, and we seek comment on this proposal. We similarly propose concluding that, just as section 251(e)(1) provides the Commission with authority to require one-way VoIP providers to implement 988 and STIR/SHAKEN,¹¹⁶ section 251(e)(1) provides us with authority to authorize and regulate direct access to numbers by one-way VoIP providers and other entities that use numbering resources, and we seek comment on this proposal. Consistent with the *VoIP Direct Access Order*, we propose concluding that refining our application and post-application direct access processes would not conflict with sections 251(b)(2) or 251(e)(2) of the Act, and we seek comment on this proposal.¹¹⁷

43. We propose concluding that section 6(a) of the TRACED Act provides us with additional authority to adopt our proposals related to fighting illegal robocalls. Section 6(a)(1) directs that

[n]ot later than 180 days after the date of the enactment of this Act, the Commission shall commence a proceeding to determine how Commission policies regarding access to number resources, including number resources for toll-free and non-toll-free telephone numbers, could be modified, including by establishing registration and compliance obligations, and requirements that providers of voice service given access to number resources take sufficient steps to know the identity of the customers of such providers, to help reduce access to numbers by potential perpetrators of violations of section 227(b) of the Communications Act of 1934 (47 U.S.C. 227(b)).¹¹⁸

The Commission commenced the proceeding as required in March 2020,¹¹⁹ and this *Further Notice* expands on those inquiries. Section 6(a)(2) of the TRACED Act states that “[i]f the Commission determines under paragraph (1) that modifying the policies described in that paragraph could help achieve the goal described in that paragraph, the Commission shall prescribe regulations to implement those policy modifications.”¹²⁰ We propose concluding that section 6(a) of the TRACED Act, by directing us to prescribe regulations implementing policy changes to reduce access to numbers by potential perpetrators of illegal robocalls, provides an independent basis to adopt the changes we propose to the direct access process with respect to fighting unlawful robocalls, and we seek comment on this proposal. Should we interpret section 6(a) of the TRACED Act as an independent grant of authority on which we may rely here? Section 6(b) of the TRACED Act authorizes imposition of forfeitures on certain parties found in violation “of a regulation prescribed under subsection (a),”¹²¹ which we preliminarily conclude supports our proposal to find that section 6(a) of the TRACED Act is an independent grant of rulemaking

¹¹⁶ See *988 Report and Order*, 35 FCC Rcd at 7394, para. 40; *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3260-61, para. 42; see also *Call Authentication Trust Anchor et al.*, WC Docket No. 17-97 et al., Second Report and Order, 36 FCC Rcd 1859, 1868-69, para. 19-22 (2020) (reaffirming that voice service providers subject to STIR/SHAKEN rules include interconnected and one-way VoIP providers).

¹¹⁷ See 47 U.S.C. § 251(b)(2) (imposing on each local exchange carrier the duty to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission); 47 U.S.C. § 251(e)(2) (“The cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission.”); *VoIP Direct Access Order*, 30 FCC Rcd at 6879-80, paras. 81-82.

¹¹⁸ TRACED Act § 6(a)(1); see also 47 U.S.C. § 227(b) (restricting the making of telemarketing calls and the use of automatic telephone dialing systems and artificial or prerecorded voice messages).

¹¹⁹ *TRACED Act Section 6(a) Order and Further Notice*, 35 FCC Rcd at 3492-96, paras. 123-30.

¹²⁰ TRACED Act § 6(a)(2).

¹²¹ TRACED Act § 6(b).

authority. Should we codify or adopt any regulations to implement the forfeiture authorization in section 6(b) of the TRACED Act, and if so, what regulations should we adopt?¹²²

IV. PROCEDURAL MATTERS

44. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),¹²³ requires that an agency prepare a regulatory flexibility analysis for notice-and-comment rulemaking proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”¹²⁴ Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning potential rule and policy changes contained in this *Further Notice of Proposed Rulemaking (FNPRM)*. The IRFA is set forth in Appendix A.

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

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

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

¹²² *See* TRACED Act § 6(b) (“Any person who knowingly, through an employee, agent, officer, or otherwise, directly or indirectly, by or through any means or device whatsoever, is a party to obtaining number resources, including number resources for toll-free and non-toll-free telephone numbers, from a common carrier regulated under title II of the Communications Act of 1934 (47 U.S.C. 201 et seq.), in violation of a regulation prescribed under subsection (a), shall, notwithstanding section 503(b)(5) of the Communications Act of 1934 (47 U.S.C. 503(b)(5)), be subject to a forfeiture penalty under section 503(b) of that Act (47 U.S.C. 503(b)). A forfeiture penalty under this subsection shall be in addition to any other penalty provided for by law.”).

¹²³ The RFA, *see* 5 U.S.C. §§ 601-612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

¹²⁴ 5 U.S.C. § 605(b).

- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788, 2788-89 (OS 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

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

48. The proceeding this Further Notice initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.¹²⁵ Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission’s *ex parte* rules.

49. *Contact Person*. For further information about this proceeding, please contact Jordan Reth, FCC Wireline Competition Bureau, Competition Policy Division, at (202) 418-1418, or jordan.reth@fcc.gov.

V. ORDERING CLAUSES

50. Accordingly, IT IS ORDERED that, pursuant to sections 1, 3, 4, 201-205, 251, and 303(r) of the Communications Act of 1934, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 303(r), and section 6(a) of the TRACED Act, Pub. L. No. 116-105, § 6(a)(1)-(2), 133 Stat. 3274, 3277 (2019), this *Further Notice of Proposed Rulemaking* IS ADOPTED.

¹²⁵ 47 CFR § 1.1200 *et seq.*

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

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),¹ as amended, the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the potential policy and rule changes that the Commission seeks comment on in the *Further Notice of Proposed Rulemaking (Further Notice)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments as specified in the *Further Notice*. The Commission will send a copy of the *Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).² In addition, the *Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.³

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

2. In the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act, Congress directed the Commission to examine whether and how to modify its policies to reduce access to numbers by potential perpetrators of illegal robocalls.⁴ Consistent with Congress's direction, the *Further Notice* proposes to update our rules regarding direct access to numbers by providers of interconnected voice over Internet Protocol (VoIP) services to help stem the tide of illegal robocalls. Today, widely available VoIP software allows malicious callers to make spoofed calls with minimal experience and cost. Therefore, as we continue to refine our process for allowing VoIP providers direct access to telephone numbers, we must account both for the benefits of competition and the potential risks of allowing bad actors to leverage access to numbers to harm Americans.

3. The Commission first began to allow interconnected VoIP providers to obtain numbers for customers directly from the Numbering Administrator rather than relying on a carrier partner in 2015.⁵ Based on our experience since that time, the *Further Notice* proposed to adopt clarifications and guardrails to better ensure that VoIP providers that obtain the benefit of direct access to numbers comply with existing legal obligations and do not facilitate illegal robocalls, pose national security risks, or evade or abuse intercarrier compensation requirements.

4. To provide additional guardrails to safeguard the nation's finite numbering resources, protect consumers, curb illegal and harmful robocalling, and further promote public safety, we propose and seek comment on a number of modifications to our rules establishing the authorization process for interconnected VoIP providers' direct access to numbering resources. First, to help curb illegal and spoofed robocalls and improve the ability of Commission staff to safeguard the public interest and operate efficiently when reviewing VoIP direct access to numbers applications and continue protecting the public interest, the *Further Notice* proposes to require additional certifications as part of the direct access application process and clarify existing requirements. Second, to help address the risk of providing access to our numbering resources and databases to bad actors abroad, the *Further Notice* proposes clarifying that applicants must disclose foreign ownership information. Third, we propose clarifying that

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

² See 5 U.S.C. § 603(a).

³ See *Id.*

⁴ See Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence Act, Pub. L. No. 116-105, § 6(a)(1)-(2), 133 Stat. 3274, 3277 (2019) (TRACED Act).

⁵ See *Numbering Policies for Modern Communications et al.*, WC Docket No. 13-97 et al., Report and Order, 30 FCC Rcd 6839 (2015) (*VoIP Direct Access Order*), *appeal dismissed*, *NARUC v. FCC*, 851 F.3d 1324 (D.C. Cir. 2017).

holders of a Commission direct access authorization must update the Commission and applicable states within 30 days of any change to the ownership information submitted to the Commission. We preliminarily believe that obtaining such updates will help us to ensure that the ownership chain does not change post-authorization in a manner that evades the purpose of application review, for instance by introducing a bad actor-owner that facilitates unlawful robocalling, poses a threat to national security, evades or abuses intercarrier compensation requirements, or otherwise engages in conduct detrimental to the public interest.

5. Fourth, we seek comment on whether we need to revise our rules to clarify that holders of a Commission direct access authorization must comply with state numbering requirements and other applicable requirements. Fifth, we propose to clarify that the Bureau retains the authority to determine when to release an Accepted-for-Filing Public Notice based on public interest considerations, and we propose to explicitly delegate authority to the Bureau to reject an application for direct access authorization if an applicant has engaged in behavior contrary to public interest or been found to originate or transmit illegal robocalls by the Commission, Industry Traceback Group, or state or federal authorities. The technological development and exponential growth of IP-based services has many potential benefits to consumers, including the development of innovative products and services and competitive pricing for such services. However, coupled with that innovation is an increase in the ease with which bad actors can engage in harmful and illegal robocalling and other fraudulent activity. The ease with which bad actors are able to form new entities, coupled with the rise in illegal and harmful robocalling since the adoption of the *VoIP Direct Access Order* in 2015, counsels us to propose clarifying explicitly that we delegate authority to the Bureau to determine at its discretion when it is appropriate to release an Accepted-For-Filing Public Notice, based on public interest considerations. Further, we preliminarily believe that this explicit delegation will enable the Commission to more effectively guard against bad actors gaining access to numbering resources, which then may be “stranded” by the taint of harmful robocalling and contribute to number exhaust. Finally, we seek comment whether we should expand the direct access to numbers authorization process to one-way VoIP providers or other entities that use numbers.

B. Legal Basis

6. The legal basis for any action that may be taken pursuant to this *Further Notice* is contained in sections 1, 3, 4, 201-205, 251, and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, 251, 303(r), and section 6(a) of the Pallone-Thune Telephone Robocall Abuse Criminal Enforcement and Deterrence (TRACED) Act, Pub. L. No. 116-105, § 6(a)(1)-(2), 133 Stat. 3274, 3277 (2019).

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

7. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸ A “small

⁶ 5 U.S.C. § 603(b)(3).

⁷ 5 U.S.C. § 601(6).

⁸ 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.”

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.⁹

8. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.¹⁰ First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.¹¹ These types of small businesses represent 99.9% of all businesses in the United States, which translates to 30.7 million businesses.¹²

9. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”¹³ The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.¹⁴ Nationwide, for tax year 2018, there were approximately 571,709 small exempt organizations in the U.S. reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.¹⁵

10. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹⁶ U.S. Census Bureau data from the 2017 Census of Governments¹⁷ indicate that there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.¹⁸ Of this number there were

⁹ 15 U.S.C. § 632.

¹⁰ See 5 U.S.C. § 601(3)-(6).

¹¹ See U.S. Small Business Administration, Office of Advocacy, *What’s New With Small Business?* (Sept. 2019), <https://cdn.advocacy.sba.gov/wp-content/uploads/2019/09/23172859/Whats-New-With-Small-Business-2019.pdf>.

¹² *Id.*

¹³ 5 U.S.C. § 601(4).

¹⁴ The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number small organizations in this small entity description. See IRS, *Annual Electronic Filing Requirement for Small Exempt Organizations — Form 990-N (e-Postcard), Who May File Form 990-N to Satisfy Their Annual Reporting Requirement*, <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard> (last visited Mar. 30, 201). We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

¹⁵ See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for Region 1-Northeast Area (76,886), Region 2-Mid-Atlantic and Great Lakes Areas (221,121), and Region 3-Gulf Coast and Pacific Coast Areas (273,702) which includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico.

¹⁶ 5 U.S.C. § 601(5).

¹⁷ See 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7.” See also Census of Governments, <https://www.census.gov/programs-surveys/cog/about.html>.

¹⁸ See U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. Local

(continued....)

36,931 general purpose governments (county¹⁹, municipal and town or township²⁰) with populations of less than 50,000 and 12,040 special purpose governments - independent school districts²¹ with enrollment populations of less than 511 governmental jurisdictions.”²²

1. Wireline Carriers

11. *Wired Telecommunications Carriers*. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.”²³ 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.²⁴ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.²⁵ Of this total, 3,083 operated with fewer than 1,000 employees.²⁶ Thus, under this size standard, the majority of firms in this industry can be considered small.

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

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governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). *See also* Table 2. CG1700ORG02 Table Notes_Local Governments by Type and State_2017.

¹⁹ *See id.* at Table 5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

²⁰ *See id.* at Table 6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000.

²¹ *See id.* at Table 10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. *See also* Table 4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes_Special Purpose Local Governments by State_Census Years 1942 to 2017.

²² This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations Tables 5, 6, and 10.

²³ *See* U.S. Census Bureau, *2017 NAICS Definition*, “517311 Wired Telecommunications Carriers,” <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

²⁴ *See* 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

²⁵ *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

²⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

applicable NAICS Code category is Wired Telecommunications Carriers.²⁷ Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.²⁸ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated for the entire year.²⁹ Of that total, 3,083 operated with fewer than 1,000 employees.³⁰ Thus under this category and the associated size standard, the Commission estimates that the majority of local exchange carriers are small entities.

13. *Incumbent Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers.³¹ Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.³² U.S. Census Bureau data for 2012 indicate that 3,117 firms operated the entire year.³³ Of this total, 3,083 operated with fewer than 1,000 employees.³⁴ Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our actions. According to Commission data, one thousand three hundred and seven (1,307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.³⁵ Of this total, an estimated 1,006 have 1,500 or fewer employees.³⁶ Thus, using the SBA's size standard the majority of incumbent LECs can be considered small entities.

14. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for Interexchange Carriers. The closest applicable NAICS Code category is Wired Telecommunications Carriers.³⁷ The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.³⁸ U.S. Census Bureau data for 2012 indicate

²⁷ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

²⁸ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

²⁹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

³⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³¹ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

³² See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

³³ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

³⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

³⁵ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

³⁶ *Id.*

³⁷ See U.S. Census Bureau, *2017 NAICS Definition*, "517311 Wired Telecommunications Carriers," <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

³⁸ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

that 3,117 firms operated for the entire year.³⁹ Of that number, 3,083 operated with fewer than 1,000 employees.⁴⁰ According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.⁴¹ Of this total, an estimated 317 have 1,500 or fewer employees.⁴² Consequently, the Commission estimates that the majority of interexchange service providers are small entities.

15. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate NAICS Code category is Wired Telecommunications Carriers⁴³ and under that size standard, such a business is small if it has 1,500 or fewer employees.⁴⁴ U.S. Census Bureau data for 2012 indicate that 3,117 firms operated during that year.⁴⁵ Of that number, 3,083 operated with fewer than 1,000 employees.⁴⁶ Based on these data, the Commission concludes that the majority of Competitive LECs, CAPs, Shared-Tenant Service Providers, and Other Local Service Providers, are small entities. According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.⁴⁷ Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees.⁴⁸ In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.⁴⁹ Also, 72 carriers have reported that they are Other Local Service Providers.⁵⁰ Of this total, 70 have 1,500 or fewer employees.⁵¹ Consequently, based on internally researched FCC data, the Commission estimates that

³⁹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

⁴⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴¹ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf (*Trends in Telephone Service*).

⁴² *Id.*

⁴³ See U.S. Census Bureau, *2017 NAICS Definition*, “517311 Wired Telecommunications Carriers,” <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁴⁴ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

⁴⁵ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

⁴⁶ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁴⁷ See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service* at Table 5.3 (Sept. 2010), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf (*Trends in Telephone Service*).

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and Other Local Service Providers are small entities.⁵²

16. *Local Resellers.* The SBA has not developed a small business size standard specifically for Local Resellers. The closest NAICS Code Category is Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. MVNOs are included in this industry.⁵³ The SBA has developed a small business size standard for the category of Telecommunications Resellers.⁵⁴ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁵⁵ 2012 U.S. Census Bureau data show that 1,341 firms provided resale services during that year.⁵⁶ Of that number, 1,341 operated with fewer than 1,000 employees.⁵⁷ Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.⁵⁸ Of this total, an estimated 857 have 1,500 or fewer employees.⁵⁹ Consequently, the Commission estimates that the majority of local resellers are small entities.

17. *Toll Resellers.* The Commission has not developed a definition for Toll Resellers. The closest NAICS Code Category is Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. MVNOs are included in this industry.⁶⁰ The SBA has developed a small business size standard for the category of

⁵² 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.” 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. 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.

⁵³ See U.S. Census Bureau, *2017 NAICS Definition*, “517911 Telecommunications Resellers,” <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

⁵⁴ See 13 CFR § 121.201, NAICS Code 517911.

⁵⁵ *Id.*

⁵⁶ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517911, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517911&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

⁵⁷ *Id.* Available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA’s size standard.

⁵⁸ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁵⁹ See *id.*

⁶⁰ See U.S. Census Bureau, *2017 NAICS Definition*, “517911 Telecommunications Resellers,” <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

Telecommunications Resellers.⁶¹ Under that size standard, such a business is small if it has 1,500 or fewer employees.⁶² 2012 U.S. Census Bureau data show that 1,341 firms provided resale services during that year.⁶³ Of that number, 1,341 operated with fewer than 1,000 employees.⁶⁴ 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.⁶⁵ Of this total, an estimated 857 have 1,500 or fewer employees.⁶⁶ Consequently, the Commission estimates that the majority of toll resellers are small entities.

2. Wireless Carriers

18. *Wireless Telecommunications Carriers (except Satellite)*. This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.⁶⁷ The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.⁶⁸ For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.⁶⁹ Of this total, 955 firms employed fewer than 1,000 employees and 12 firms employed 1000 employees or more.⁷⁰ Thus under this category and the associated size standard, the Commission estimates that the majority of Wireless Telecommunications Carriers (except Satellite) are small entities.

19. The Commission's own data—available in its Universal Licensing System—indicate that, as of August 31, 2018 there are 265 Cellular licensees that will be affected by our actions.⁷¹ The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular

⁶¹ See 13 CFR § 121.201, NAICS Code 517911.

⁶² *Id.*

⁶³ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517911, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517911&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

⁶⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁶⁵ See *Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*).

⁶⁶ See *id.*

⁶⁷ See U.S. Census Bureau, *2017 NAICS Definition*, “517312 Wireless Telecommunications Carriers (except Satellite)”, <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517312&search=2017%20NAICS%20Search>.

⁶⁸ See 13 CFR § 121.201, NAICS Code 517312 (previously 517210).

⁶⁹ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012>.

⁷⁰ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

⁷¹ See <http://wireless.fcc.gov/uls>. For the purposes of this IRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers.

service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.⁷² Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.⁷³ Thus, using available data, we estimate that the majority of wireless firms can be considered small.

3. Other Entities

20. *Internet Service Providers (Broadband)*. Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure fall in the category of Wired Telecommunication Carriers.⁷⁴ Wired Telecommunications Carriers are comprised of 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 telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.⁷⁵ The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees.⁷⁶ U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.⁷⁷ Of this total, 3,083 operated with fewer than 1,000 employees.⁷⁸ Consequently, under this size standard the majority of firms in this industry can be considered small.

21. *All Other Telecommunications*. The “All Other Telecommunications” category is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.⁷⁹ 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.⁸⁰ Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.⁸¹ The SBA has developed a small business size standard for “All Other Telecommunications”, which consists of all such firms with annual receipts of \$35 million or less.⁸² For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the

⁷² See Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

⁷³ See *id.*

⁷⁴ See U.S. Census Bureau, 2017 NAICS Definition, “517311 Wired Telecommunications Carriers”, <https://www.census.gov/naics/?input=517311&year=2017&details=517311>.

⁷⁵ *Id.*

⁷⁶ See 13 CFR § 121.201, NAICS Code 517311 (previously 517110).

⁷⁷ See U.S. Census Bureau, 2012 Economic Census of the United States, Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517110, <https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false>.

⁷⁸ *Id.* The largest category provided by the census data is “1000 employees or more” and a more precise estimate for firms with fewer than 1,500 employees is not provided.

⁷⁹ See U.S. Census Bureau, 2017 NAICS Definition, “517919 All Other Telecommunications”, <https://www.census.gov/naics/?input=517919&year=2017&details=517919>.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² See 13 CFR § 121.201, NAICS Code 517919.

entire year.⁸³ Of those firms, a total of 1,400 had annual receipts less than \$25 million and 15 firms had annual receipts of \$25 million to \$49,999,999.⁸⁴ Thus, the Commission estimates that the majority of “All Other Telecommunications” firms potentially affected by our action can be considered small.

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

22. The proposals in the *Further Notice* may create new or additional reporting or recordkeeping and/or other compliance obligations on small entities, if adopted. Specifically, the *Further Notice* seeks comment on proposals to impose additional certification requirements with respect to robocall mitigation, 911, CALEA, and other public safety compliance requirements, and, if adopted, could impose additional reporting and compliance obligations on entities. As part of the direct access application process, the *Further Notice* also proposes to require applicants to file proof of compliance with Commission Form 477 and 499 filing requirements, if applicable, and to provide sufficient technical information to demonstrate that it provides interconnected VoIP services. The *Further Notice* also proposes to require a direct access applicant or authorization holder to inform relevant Commission staff if the applicant is later subject to a Commission, law enforcement, or regulatory agency action, investigation, or inquiry due to its robocall mitigation plan being deemed insufficient or problematic, or due to suspected unlawful robocalling or spoofing, and to acknowledge this requirements it its application. In addition, the *Further Notice* seeks comment on any changes we should make to our direct access authorization rules to protect against access stimulation schemes.

23. The *Further Notice* proposes to require applicants for a Commission direct access authorization to disclose information, including the name, address, country of citizenship, and principal business of every person or entity that directly or indirectly owns at least ten percent of the equity of the applicant, and the percentage of equity owned by each of those entities to the nearest one percent, and also to certify in their applications “as to whether or not the applicant is, or is affiliated with, a foreign carrier.” The *Further Notice* also proposes to clarify that VoIP providers that have received direct access to numbers must also submit an update to the Commission and each applicable state within 30 days of any change to the ownership information submitted to the Commission, including any change to the name, address, citizenship and/or principal business of any person or entity that directly or indirectly owns at least ten percent of the equity of the applicant, or to the percentage of equity owned by each of those entities. In addition, the *Further Notice* seeks comment whether we should revise our existing rules to clarify that interconnected VoIP providers holding a Commission numbering authorization must comply with state numbering requirements and other applicable requirements.

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

24. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for such small

⁸³ See U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517919, <https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false>.

⁸⁴ *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”⁸⁵

25. The *Further Notice* proposes and seeks comment on a number of clarifications to the Commission’s rules establishing the VoIP direct access to numbering resources authorization process. We anticipate that the additional certainty that these clarifications will provide will likely benefit small entities through lowered compliance costs. More specifically, we anticipate that clarifying what information must be included with an application, when ownership changes must be reported, and the scope of the Bureau’s review authority, will better enable small entities to understand what is required of them, streamlining the application process.

26. Regarding the proposals in the *Further Notice*, we seek comment on alternatives that the Commission consider, the impact of the proposals on small businesses, as well as the competitive impact of the proposals on VoIP providers applying for a Commission authorization for direct access to numbering resources. We also seek comment on how the proposals can protect the Nation’s numbering resources and minimize unwanted and illegal robocalls, both of which we anticipate would benefit interconnected VoIP providers. We seek comment on the costs and benefits associated with our proposals in the *Further Notice*. We expect to consider the economic impact on small entities as part of review of comments filed in response to the *Further Notice* and this IFRA.

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

27. None.

⁸⁵ 5 U.S.C. § 603(c)(1)-(4).