

SUPPORTING STATEMENT

The FCC requests OMB approval of a three-year extension of this information collection (IC) contained in 3060-1085: Section 9.5, Interconnected Voice over Internet Protocol (VoIP) E911 Compliance.

Prior burden estimates were based upon interpolations of public data collected by the Commission pursuant to its statutory obligations to assess collections upon carriers for such programs as the universal service fund and telephone relay service, other government agency reports, and trade association information. These estimates included assumptions about the extent and pace of carrier convergence from circuit switched facilities to broadband pipes that use Transfer Control Protocol/Internet Protocol (TCP/IP) technology to carry voice, video and internet services combined. The estimates also included subscriber churn and subscribership growth assumptions by both interconnected and non-interconnected VoIP services providers.

On October 7, 2011, the Commission released the Contributions to the Telephone Relay Services Fund Report and Order. In addition to providing a systematic way of assessing contributions from non-interconnected VoIP services providers, the Order also requires interconnected and non-interconnected VoIP services providers to report revenues and subscribership on FCC Form 499-A, Telecommunications Reporting Worksheet.¹ This collection, OMB Control Number 3060-0816, was approved by the Office of Management and Budget on November 7, 2011.² The reported data in response to this collection was previously used by the Commission to assess monetary contribution requirements on VoIP services providers.

Due to the rapid adoption of VoIP technology, numbers for the 2018-2021 collection were taken from the FCC Voice Telephone Services Report, Nationwide Subscriptions, Interconnected VoIP Subscriptions, Consumer-grade service.³ Estimates for percentage of VoIP customers that change providers each year, other causes of additional registration, such as laptop users registering temporary locations, percentages of customer churn phones, and replacement phones rely on methods used by the FCC since 2009, as described in Appendix A.

The Commission is reporting an increase in the total annual burden hours. See the Appendix A at the end of this Supporting Statement for a breakdown of the estimated burdens.

A. Justification:

¹ Contributions to the Telecommunications Relay Services Fund, *Report and Order*, CG Docket No. 11-47, FCC 11-150 (rel. October 7, 2011),

² OMB Control No. 3060-0816, 76 FR 215, pages 68641-68642 (November 7, 2011).

³ Available here: https://www.fcc.gov/sites/default/files/vts_national_table_1.xlsx

1. In the *Notice* released March 10, 2004,⁴ the Federal Communications Commission (Commission) asked, among other things, about the potential applicability of basic 911, enhanced 911 (E911), and related critical infrastructure regulation to voice over Internet protocol (VoIP) and other internet protocol (IP) enabled services.

Specifically, after noting that the Commission previously found in the *E911 Scope Order* that it has statutory authority under sections 1, 4(i), and 251(e)(3) of the Communications Act of 1934, as amended (Act) to determine what entities should be subject to the Commission’s 911 and E911 rules,⁵ the Commission sought comment on whether it should exercise its regulatory authority in the context of IP-enabled services.

The Commission further sought comment on the appropriate criteria for determining:

- (a) Whether and to what extent IP-enabled services should fall within the scope of its 911 and E911 regulatory framework; and
- (b) Whether IP-enabled services are technically and operationally capable of meeting the Commission’s basic 911 and/or E911 rules or of providing analogous functionalities that would meet the intent of the 911 Act⁶ and the Commission’s regulations.

The Commission is obligated by statute to promote “safety of life and property”⁷ and to “encourage and facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure” for public safety.⁸

Congress has established 911 as the national emergency number to enable all citizens to reach emergency services directly and efficiently, irrespective of whether a citizen uses wireline or wireless technology when calling for help by dialing 911.⁹

Efforts by federal, state and local government, along with the significant efforts of wireline and wireless service providers, have resulted in the nearly ubiquitous deployment of this life-saving service.

The *Order* the Commission adopted on May 19, 2005,¹⁰ set forth rules requiring providers of VoIP services that interconnect with the nation’s existing public

⁴ See *IP-Enabled Services*, WC Docket No. 04-36, Notice of Proposed Rulemaking, 19 FCC Rcd 4863 (2004) (*Notice*).

⁵ 47 U.S.C. §§ 151, 154(i), 251(e)(3).

⁶ Wireless Communications and Public Safety Act of 1999, Pub. L. No. 106-81, 113 Stat. 1286, § 2(b) (1999) (911 Act).

⁷ See 47 U.S.C. § 151.

⁸ 911 Act § 2(b).

⁹ See 911 Act § 3, *codified at* 47 U.S.C. § 251(e).

switched telephone network (interconnected VoIP services) to supply E911 capabilities to their customers.

The *Order* required the collection of information in six instances, though two of those are no longer relevant.¹¹

A. Location Registration.

- (1) Interconnected VoIP service providers, like wireline and wireless telecommunications carriers, utilize information regarding the location of a 911 caller in order to route the 911 call to a geographically appropriate emergency answering point.
- (2) In many cases, the 911 caller's location information and call back number also is automatically provided to call dispatchers at the emergency answering point.
- (3) Prior to the *Order*, there was no way for certain classes of interconnected VoIP providers to reliably and automatically provide information regarding the location of their end users to an emergency answering point without the end user's active cooperation.

The *Order* required that:

- (1) Providers of interconnected VoIP services must obtain location information from their customers for use in the routing of 911 calls and the provision of location information to emergency answering points.

Specifically, interconnected VoIP providers must obtain from each customer, prior to the initiation of service, the physical location at which the service will first be utilized.¹²

- (2) Interconnected VoIP providers must further provide their end users one or more methods of updating information regarding the end user's physical location.

¹⁰ *IP-Enabled Services*, WC Docket No. 04-36, *E911 Requirements for IP-Enabled Service Providers*, WC Docket No. 05-196, FCC 05-116 (rel. June 3, 2005) (*Order*).

¹¹ The *Order* required a compliance letter detailing their compliance with the E911 rules. The *Order* also required User Notification but noted that: "Due to the widespread proliferation of VoIP services and new telephone equipment sold to replace existing telephone equipment, the information included with the new equipment and the warnings given by service provider representatives at the time of sale absorb this collection in items C and D above. See Appendix A, pp. 1-2 (assumptions) of this support statement."

¹² Interconnected VoIP providers were also required to obtain from their existing customers, within 120 days of the effective date of the *Order*, the physical location at which the service is being utilized.

The most recent location provided to an interconnected VoIP provider by a customer is the “Registered Location.”

Although the *Order* does not specify any particular method for collecting such information, the *Order* required that any method utilized allow an end user to update their Registered Location at will and in a timely manner, including at least one option that requires use only of the customer premises equipment necessary to access the interconnected VoIP service.¹³

Interconnected VoIP providers can comply with this requirement directly or by utilizing the services of a third party.

- B. *Provision of Automatic Location Information (ALI)*. The existing E911 network is a dedicated, redundant, highly reliable wireline network (Wireline E911 Network) which is interconnected with but largely separate from the public switched telephone network (PSTN).

When a 911 call is placed, the call is routed to the appropriate emergency answering point based on the location information contained in an Automatic Location Information database (ALI Database) maintained by the entity that operates the Wireline E911 Network.

The ALI Database also is used to provide location information to emergency answering points that request such information.

In order to meet the obligations set forth in the *Order*, interconnected VoIP service providers will place the Registered Location information for their customers into, or make that information available through, ALI Databases across the country.

- C. *Customer Notification*. In order to ensure that consumers of interconnected VoIP services are aware of their interconnected VoIP service’s actual E911 capabilities, the *Order* requires that all providers of interconnected VoIP service specifically advise every subscriber, both new and existing, prominently and in plain language, the circumstances under which E911 service may not be available through the interconnected VoIP service or may be in some way limited by comparison to traditional E911 service.
- D. *Record of Customer Notification*. The *Order* requires VoIP providers to obtain and keep a record of affirmative acknowledgement by every subscriber, both new and existing, of having received and understood this advisory.

¹³ We expect that location information will be submitted electronically, either via the customer’s CPE or through the service provider’s website.

Statutory authority is contained in 47 U.S.C. §§ 151, 154(i)-(j), 251(e), 303(r) of the Communications Act of 1934, as amended.

This information collection does affect individuals or households, and thus, there are impacts under the Privacy Act. However:

- (1) The information that is related to individuals or households is collected by a third party, the interconnected VoIP provider;
 - (2) The FCC has no direct involvement in the collection of this information on individuals or households;
 - (3) Since the FCC has no direct involvement in the collection of this information, the Commission is not required to complete a privacy impact assessment; and
 - (4) Further, interconnected VoIP providers generally have written privacy policies governing the treatment of information collected from their subscribers, to include information regarding a customer's Registered Location.
2. A. *Location Registration.* The Registered Location will be used by the interconnected VoIP provider, the entity that operates the Wireline E911 Network, and public safety officials in order:
- (1) To deliver 911 calls to an appropriate emergency answering point and, in many cases,
 - (2) To deliver a call back number and location information to emergency call takers to facilitate emergency response.
- B. *Provision of ALI.* In order to meet the obligations set forth in the *Order*:
- (1) Interconnected VoIP service providers will place the Registered Location information for their customers into, or make that information available through, ALI databases maintained by local exchange carriers (and, in at least one case, a state government) across the country.
 - (2) The ALI will be used by the interconnected VoIP provider, the entity that operates the Wireline E911 Network, and public safety officials in order to deliver 911 calls to an appropriate emergency answering point and, in many cases, deliver a call back number and location information to facilitate emergency response.
- C. *Customer Notification.* The Commission requires that VoIP providers perform customer notification to ensure that interconnected VoIP service subscribers are

- aware of their interconnected VoIP service's actual E911 capabilities and limitations (third party notification requirement).
- D. *Record of Customer Notification.* The Commission requires interconnected VoIP service providers to keep and retain affirmative acknowledgement by every subscriber of the customer notification described above in order to facilitate the Commission's review and, if necessary, enforcement of interconnected VoIP providers' compliance with the rules (recordkeeping requirement).
3. A. *Location Registration.* As discussed above, the *Order* required that:
- (1) Any method utilized must allow an end user to update their Registered Location at will and in a timely manner, including at least one option that requires use only of the customer premises equipment necessary to access the interconnected VoIP service.
 - (2) We anticipate that many interconnected VoIP providers will also allow their customers to update their Registered Location via a webpage.
- B. *Provision of ALI.*
- (1) Entities that make information available in or through ALI Databases do so by electronic means.
 - (2) Interconnected VoIP providers will also use electronic means to provide location information via the ALI Database.
- C. *Customer Notification.* Customer notification may be provided in conjunction with an interconnected VoIP provider's subscription process, which may be conducted electronically.
- D. *Record of Customer Notification.* The record obtained by an interconnected VoIP provider can be obtained and stored electronically, likely in conjunction with the normal product ordering process usually conducted over via a webpage.
4. None of the information collected as a result of the *Order* will be duplicative of other information.
5. The Commission has attempted to balance the economic interests of small businesses with the public's great interest in access to E911 services when using interconnected VoIP services:

- A. The *Order* discusses how E911 service is critical to our nation’s ability to respond to a host of crises and that the public has come to rely on the life-saving benefits of such services in emergency situations.
- B. While the Commission sought comment on, and considered, ways that the public safety could be protected through access to E911 services that are less burdensome to small businesses than the imposition of E911 obligations, the Commission concluded that it was important for *all* interconnected VoIP service providers to participate in protecting the public safety.
- C. As the Small Business Administration (SBA) notes, many VoIP providers are likely to be small businesses. The SBA claims that “[t]hese small providers are developing a nascent technology and are especially vulnerable to disproportionate regulatory costs.”
- D. Nevertheless, as discussed in the *Order*, the Commission believes it is reasonable to expect any business electing to interconnect with the PSTN to the extent required to provide interconnected VoIP service also to provide E911 service in order to protect the public interest.
- E. Small businesses may still offer VoIP service without being subject to the rules adopted in the *Order* by electing not to provide an *interconnected* VoIP service.
- F. (1) The Commission determined that it was necessary to impose E911 obligations on all providers of interconnected VoIP service in order to ensure the ubiquitous availability of E911 service for users of interconnected VoIP service,
 - (2) The Commission minimized the burdens of this regulation by, for example, requiring straightforward reporting requirements and by setting reasonable timetables for implementation of the rules adopted in the *Order*.¹⁴
- G. (1) The Commission minimized the burdens of this regulation by not mandating any particular technical solution.
 - (2) Interconnected VoIP providers may connect:
 - (i) Directly to the Wireline E911 Network;
 - (ii) Indirectly through a third party, such as a competitive local exchange carrier; or
 - (iii) Through any other solution that allows a provider to offer E911 service.

¹⁴ See 5 U.S.C. § 603(c).

6. Describe the consequence to Federal program or policy activities if the collection is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

There are no consequences to Federal programs or policy activities if the collection is not conducted or is conducted less frequently. The frequency of the collection is determined by the respondents and its customers.

7. The Record of Customer Notification will be retained by interconnected VoIP providers for periods longer than three years to the extent individuals remain subscribers for longer than three years.
8. Pursuant to 5 CFR 1320.8(d), the Commission published a 60-day notice in the Federal Register on May 15, 2018 (83 FR 22481). No comments were received.
9. Respondents will not receive any payments.
10. A. If applicants want to seek confidential treatment of their filing, they may do so pursuant to 47 CFR § 0.459 of the Commission's rules.

B. With respect to Location Registration, Provision of ALI, Customer Notification, Record of Customer Location and User Notification, the Commission currently does not have rules governing the treatment of such information by interconnected VoIP providers.

C. The *Notice*, however, requested comment on whether the Commission's existing customer proprietary network information (CPNI) or similar requirements should apply to any provider of interconnected VoIP or other IP-enabled services.¹⁵
11. This information collection does not address any private matters of a sensitive nature.
12. A. Respondent Burden:

¹⁵ Section 222 of the Act prevents telecommunications carriers from disclosing customer proprietary network information (CPNI), including customer location information, without customer approval. 47 U.S.C. § 222(c)(1). The Commission has noted that Congress in the 911 Act provided certain privacy protections related to wireless carriers' ability automatically to obtain and transmit precise customer location information, and exceptions from those rules for the provision of E911 service. See 911 Act § 5 (amending section 222 by, *inter alia*, adding new sections 47 U.S.C. § 222(d)(4), (f) (concerning CPNI) and 47 U.S.C. § 222(g) (concerning subscriber information)). Also, in redesignating former section 47 U.S.C. § 222(f) as section 47 U.S.C. § 222(h), the 911 Act amended or added definitions. 47 U.S.C. § 222(h)(1)(A), (h)(4)-(7). Interconnected VoIP service providers to date have not been classified as telecommunications carriers under the Act.

- (1) We anticipate that a significant number of smaller interconnected VoIP providers:
 - (i) Will partner to provide E911 functionality; and/or
 - (ii) Will outsource the execution of the information collection obligations set forth in the Order to third parties, resulting in significant economies of scale.
- (2) We therefore calculate the estimated number of interconnected VoIP providers (respondents) for all the remaining information collection requirements at 12, a number which is smaller than the estimated number of interconnected VoIP providers subject to the *Order* when this IC was submitted to OMB in 2005.
 - (i) Variable costs have been averaged over the three-year authorized period for the information collection revision.
 - (ii) Please note that annualized capital and startup costs, which are identified in Item 13, are not included in the figures for this item 12.

B. *Location Registration.*

- (1) Interconnected VoIP providers will be required to obtain a Registered Location for each customer on the date the Order became effective or upon signup of a new customer.
- (2) As discussed in paragraph 12.A.2 above, we calculate the number of interconnected VoIP provider respondents for the Location Registration information collection at 12.
- (3) Interconnected VoIP providers will, in addition, receive from customer's periodic updates of customer Registered Locations on an occasional basis, and will be required to maintain and update the associated databases.
- (4) Although the annual hour burden for each interconnected VoIP provider will vary as a function of the number of subscribers, customer churn, and mobility of customers, we estimate on an industry wide basis that the annual hour burden of obtaining registered locations. The average annualized for 2017 was 28,740 for all 12 interconnected VoIP respondents. (Appendix, A, Items A.1 and A.2.)
- (5) The "in-house" cost to respondents for the hour burden associated with obtaining Registered Locations is estimated, the average annualized cost for

the first three years of the registered location information collection is \$1,546,891. (Appendix, A, Items A.1 and A.2).

- (6) The annual burden to customers for providing their Registered Locations depends on the number of registrations, churn plus other changes. The average annual hour burden to customers is 1,508,400 and the average annualized cost to customers for the associated hour burden is \$40,455,288. (Appendix A, Item A3.)

C. Provision of Automated Location Information (ALI).

- (1) Interconnected VoIP providers will be required to place Registered Location information for their customers into, or make that information available through, ALI Databases each time a 911 call is made.
- (2) As discussed in paragraph 12.A.2 above, we calculate the number of interconnected VoIP provider respondents for the Provision of ALI information collection at 12.
- (3) The programming required to ensure such ALI provision is estimated to result in an annual hour burden of 6,000 hours (12 interconnected VoIP providers x 500 hours per response = 6,000 hours). (Appendix A, Item B3.)
- (4) The “in-house” average annualized cost to respondents for the hour burden for the programming required to ensure the provision of ALI is estimated at \$593,460 per year (Appendix A, Item B.3).

(5)

D. Customer Notification. The annual hour and cost burdens of the Customer Notification requirement are incorporated into the figures in Item 12.A (Registered Location) above (Appendix A, Item C).

E. Record of Customer Notification.

- (1) Interconnected VoIP providers will be required to obtain and store one record per customer, usually in conjunction with the customer signup process.
- (2) As discussed in paragraph 12.A.2 above, we calculate the number of interconnected VoIP provider respondents for the Record of Customer Notification information collection at 12.
- (3) The annual hour burden for obtaining and storing such record is estimated at 144 hours per year (Appendix A, Item D2)

- (4) The “in-house” average annualized cost to respondents for the hour burden for collection of such records and storage of records is estimated per year: (Appendix A, Item D2) \$14,243

F. Total burden hours and costs

(1) The total in-house burden hours and costs to interconnected VoIP respondents and consumers is **1,543,284 hours** [28,740 + 1,508,400 + 6000 + 144] and **\$42,609,882** [\$1,546,891 + \$40,455,288 + \$593,460 + \$14,243].

(2) Total Number of Respondents: 12 (interconnected VoIP services providers)

(3) Number of Responses:

A. Location Registration: Registrations x percent requiring handling (Appendix A, notes 2 and 10) plus registrations (Appendix A, note 2) 16,927,600

B. Provision of Automated Location Information (ALI):
Each provider must make ALI available to or through ALI databases 12

C. Customer Notification: (Included in A above, see Appendix A, Item C) 0

D. Record of Customer Notification (Each provider must maintain records) 12

Total Number of Responses: **16,927,624**

13. **A.** The total annualized capital and start-up costs are estimated to include:

(1) The annual equipment cost of VoIP gateway routers (Appendix A, Item B1):
\$3,750,000

B. Total operation and maintenance and purchase of services costs are estimated to include:

(1) Payments for connections between gateway routers and ILEC selective routers (Appendix A, Item B2): \$3,540,000

(2) Payments to ILECs (Appendix A Item B4): \$241,800,000

(3) Cost of storing electronic customer certifications (included in 12.E4 above)

(4) Cost of including warning stickers on newly sold forms (Appendix A, Item E1)
\$4,190,000

Total annualized capital and start-up costs: \$253,280,000 [\$3,750,000 + \$3,540,000 + 241,800,000 + \$4,190,000]

14. Cost to the Federal Government: Minimal. The only requirements in this information collection are third party requirements and recordkeeping requirements. There will be minimal Commission review. Only if the Commission is queried or if someone files a complaint, the Commission will use a GS-13/Step 5 staff attorney in the Washington, DC area at \$52.84 per hour to review the complaint or query that is filed, each requiring approximately 10 minutes to review.¹⁶

12 responses x 0.166 hours/response x \$54.95/hour = \$109 (rounded up)

15. The Commission is reporting adjustments to this collection from the last submission to OMB. The total annual responses, total annual burden hours and total annual cost increased as result of an increase in VoIP subscribership. The use of VoIP technology has grown rapidly and it increasingly is used to provide voice telephone service.¹⁷

There no program changes to this collection.

16. The data will not be published for statistical use.
17. The Commission is not requesting to “display” the OMB expiration date for this information collection because this IC contains recordkeeping and third-party requirements. However, the Commission publishes a list of all OMB-approved information collections in 47 CFR 0.408 of the Commission’s rules.
18. There are no exceptions to the Certification Statement.

B. Collections of Information Employing Statistical Methods:

This information collection does not employ any statistical methods.

¹⁶ An annual salary of \$109,900 was used to calculate \$54.95/hour. <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2018/RUS.pdf>.

¹⁷ See Voice Telephone Services: Status as of June 30, 2016 Industry Analysis and Technology Division Wireline Competition Bureau April 2017, https://apps.fcc.gov/edocs_public/attachmatch/DOC-344500A1.pdf at 1.