

SUPPORTING STATEMENT

The Federal Communications Commission (“FCC” or “Commission”) requests Office of Management and Budget (OMB) approval of the information collection (IC) contained in 3060-XXXX: Sections 9.8 and 9.16 Fixed Telephony and Multi-line Telephone Systems. The FCC requests OMB approval of the instant information collection in order to implement congressional mandates arising from Section 506 of RAY BAUM’S Act intended to improve emergency response.

Section 506 of RAY BAUM’S Act and Dispatchable Location

Section 506 of RAY BAUM’S Act requires the Commission to “consider adopting rules to ensure that the dispatchable location is conveyed with a 9-1-1 call, regardless of the technological platform used and including with calls from multi-line telephone system.”¹ RAY BAUM’S Act also states that, “[i]n conducting the proceeding . . . the Commission may consider information and conclusions from other Commission proceedings regarding the accuracy of the dispatchable location for a 9-1-1 call”² RAY BAUM’S Act defines a “9-1-1 call” as a voice call that is placed, or a message that is sent by other means of communication, to a Public Safety Answering Point (PSAP) for the purpose of requesting emergency services.³

On August 1, 2019, fulfilling its duty to implement Section 506 of RAY BAUM’S Act, the Commission adopted a Report and Order (*2019 Order*)⁴ requiring, among other things, transmission of Dispatchable Location to the appropriate PSAP with each 911 call using a Fixed Telephony Service or a MLTS.⁵ The specific rule sections for which we seek continued (three-year) OMB approval are Sections 9.8(a), 9.16(b)(3)(i), (ii), and (iii).⁶

A. Justification:

Enhanced 9-1-1

The public has long relied on dialing 911 to reach emergency services. Advances in technology allow for Enhanced 911 (E-911), which automatically provides Public Safety Answering Points (PSAPs) with a 911 caller’s location and a call-back number as part of each 911 call. Since its implementation, most E911 calls have conveyed information regarding the

¹ Section 506 of the Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018 (RAY BAUM’S Act), Pub. L. No. 115-141, 132 Stat. 348, 1095 (codified at 47 U.S.C. § 615 note).

² *See id.*, § 506(b).

³ *Id.* § 506(c)(1).

⁴ *Implementing Kari’s Law and Section 506 of RAY BAUM’s Act; Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems; Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission’s Rules*, PS Docket Nos. 18-261 and 17-239, Report and Order, 34 FCC Rcd 6607(2019) (*2019 Order*).

⁵ MLTS refers to “a system comprised of common control units, telephone sets, control hardware and software and adjunct systems, including network and premises based systems, such as Centrex and VoIP, as well as PBX, Hybrid, and Key Telephone Systems (as classified by the Commission under part 68 of title 47, Code of Federal Regulations), and includes systems owned or leased by governmental agencies and non-profit entities, as well as for profit businesses.” 47 U.S.C. § 1471(2); 47 CFR § 9.3.

⁶ 47 CFR §§ 9.8(b); 9.16(c).

caller's location (with varying degrees of accuracy) and a call-back number to the PSAP. These enhancements have significantly improved PSAPs' ability to effectively deliver critical public safety and emergency response services in a timely manner. In many instances, E911 has proven to be a lifesaving, essential emergency response tool for providing critical information when the caller is unable to verbally communicate his or her location, including when the voice call is dropped or discontinued and cannot be reestablished. Under the Commission's rules, consumers generally have access to critical public safety and emergency response services when they make mobile and interconnected VoIP calls to 911. Until recently the Commission's E911 rules did not apply to Fixed Telephony⁷ or a Multi-Line Telephone System (MLTS). Some states have applied E911 requirements on Fixed Telephony and MLTS. Consequently, while calls from most landline services provided location information, MLTS consumers in environments such as office buildings, campuses, and hotels did not have the same access to E911 services that is provided by mobile, and VoIP systems, namely the provision of the MLTS user's location information. MLTS serve millions of employees, residents, and guests of businesses and educational facilities, including corporate parks, hotels, college campuses, and planned community developments.⁸

Section 506 of RAY BAUM'S Act defines "dispatchable location" as "the street address of the calling party, and additional information such as room number, floor number, or similar information necessary to adequately identify the location of the calling party."⁹ In the *2019 Order*, the Commission adopted dispatchable location requirements for Fixed Telephony and MLTS calls, but also required that the definition of dispatchable location should include a requirement that street addresses be validated. The Commission's intent behind the new regulations is to provide emergency responders with more specific and accurate location information than civic address. As explained below, the Commission adopted a technologically neutral approach that leverages existing technologies and recognizes the need for flexibility. Specifically, the Commission requires that providers of Fixed Telephony and fixed, on-premises MLTS devices, to provide dispatchable location beginning January 6, 2021. In non-fixed environments, the Commission requires MLTS entities to provide dispatchable location with 911 calls, if technically feasible. Because non-fixed MLTS devices may be on-premises or off-premises, the Commission adopted a flexible array of compliance options to minimize burdens while serving the vital public safety interest of enabling PSAPs and first responders to locate Americans in peril.

1. Collection of Location Information by Fixed Telephony Service Providers

In the *2019 Order*, the Commission, based on the record, found that fixed telephony providers already provide validated street address information with 911 calls and are either

⁷ The Commission's rules required all telecommunications carriers, including fixed telephony providers, to transmit all 911 calls to a PSAP, to a designated statewide default answering point, or to an appropriate local emergency authority. The rules did not require telecommunications carriers to convey the location of the caller with the call, and there is no Commission 911 location rule applied specifically to fixed telephony carriers. However, pursuant to applicable state law, the Commission noted that fixed telephony carriers typically provided validated street address information in conjunction with their customers' 911 calls. Fixed telephony may be referred to as landline or dedicated line services.

⁸ See *Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems*, Notice of Inquiry, 32 FCC Rcd 7923, 7924-25, paras. 4-5 (2017) (*Enterprise Communications NOI*).

⁹ RAY BAUM'S Act, § 506(a).

already providing floor and room information in multi-story buildings or can readily do so at minimal cost.¹⁰ Based on these findings, the Commission required fixed telephony providers to deliver automated dispatchable location with 911 calls. The Commission determined that, to ensure timely implementation while affording affected parties a reasonable amount of time to take the necessary steps to come into compliance, the requirement should not take effect until one year from the effective date of the rules adopted in the *2019 Order*, or January 6, 2021. This transition time, coupled with the fact that fixed telephony providers already are providing PSAPs with validated street addresses for 911 calls, significantly reduces the compliance burden on respondents. The burden may be further limited because the Commission also stated that fixed telephony providers that face limitations in providing automated dispatchable location due to factors beyond their control may seek relief from the requirement under the Commission's waiver process.

2. Collection of Location Information by MLTS operators and managers

Flexible Compliance Options. In the *2019 Order*, the Commission adopted a framework that, based on record evidence, accounts for variance in the feasibility of providing dispatchable location for an MLTS 911 call, and the means available to provide it. The Commission observed that feasibility varies significantly depending on whether the call is from a fixed or non-fixed device and, in the case of non-fixed devices, whether the device is being used on or off the enterprise premises. Accordingly, the Commission adopted an approach that encourages the transition to the provision of automated dispatchable location while affording MLTS providers the flexibility to select from a menu of technology-neutral alternative options to provide actionable location information where automated dispatchable location information is not technically feasible.

The flexible array of options for respondents varies by the degree to which dispatchable location is feasible for a particular use case. To enable MLTS providers to appropriately balance technical feasibility, functionality, customer impact, and cost, the Commission has permitted providers flexibility in implementing dispatchable location solutions, and, for non-fixed devices associated with an MLTS, to fall back to manual updating or alternative or enhanced location information when dispatchable location is not feasible. For example, in instances where it is infeasible to validate dispatchable location, an MLTS provider may need to send an interactive query to the end user to confirm the location identified by the provider, and to correct the location if needed.

The Commission also concluded that it is important to encourage development of alternative approaches, based on the full range of device-based and other available location technologies, that place less burden on the end user than manual updates. Accordingly, in addition to manual updates, the MLTS provider has the alternative fallback options of providing alternative location information, which may be coordinate based, or, depending on the use case, enhanced location information, which consists of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost. The full array of flexible rules for each use case are as follows:

For on-premises, fixed devices associated with an MLTS, the Commission concluded that providing automated dispatchable location is readily

¹⁰ *2019 Order* at para. 171.

achievable and, thus, an MLTS operator or manager must provide automated dispatchable location with 911 calls in this use case.

For on-premises, non-fixed devices associated with an MLTS, the MLTS operator or manager must provide automated dispatchable location to the appropriate PSAP when technically feasible; otherwise they must provide either dispatchable location based on end-user manual update, or alternative location information.¹¹

For off-premises MLTS calls to 911, the MLTS operator or manager must provide (1) dispatchable location, if technically feasible, or, otherwise, either 2) manually-updated dispatchable location, or (3) enhanced location information, which may be coordinate-based, consisting of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost.

Transition Period. In addition, the Commission provided additional time for respondents to adapt to the new requirements by delaying compliance dates significantly from the initially proposed deadline of February 16, 2020. The Commission determined that an extended transition period would help ensure timely implementation while affording affected parties a reasonable amount of time to assess and adjust for particularized business models, thereby allowing them to make compliance as least costly and burdensome as possible. The Commission concluded that an extended transition period is appropriate for implementation of these requirements, as follows:

For fixed MLTS, the Commission determined that a one-year transition period was appropriate, setting a compliance date of January 6, 2021;

For non-fixed MLTS, the Commission determined that a two-year transition period was appropriate, setting a compliance date of January 6, 2022.

Legacy Systems. Finally, to further lessen the burden on potential respondents, the Commission decided to apply the new requirements only to those MLTS manufactured, offered for lease or sale, or upgraded after February 16, 2020. Thus, all existing MLTS do not need to comply with the new requirements unless and until they are upgraded so substantially as to be properly considered new systems. By making the requirements entirely prospective, the burden imposed on the MLTS industry sector will, in effect, be phased in slowly over many years as systems are replaced in the normal course, after having been fully amortized and having reached the end of their useful lives.

- 1. Explain in detail the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Provide a copy of the appropriate section of each statute and regulation mandating or authorizing the information collection.**

¹¹ Alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. (47 CFR §§ 9.16(b)(3)(ii) and 9.3.).

The Commission is obligated by statute to promote “safety of life and property”¹² 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.¹³

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 911.¹⁴

Section 506 of RAY BAUM’S Act required the Commission to “consider adopting rules to ensure that the dispatchable location is conveyed with a 9-1-1 call, regardless of the technological platform used and including with calls from multi-line telephone system.”¹⁵

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.

Statutory authority is contained in 47 U.S.C. 151-154, 152(a), 155(c), 157, 160, 201, 202, 208, 210, 214, 218, 219, 222, 225, 251(e), 255, 301, 302, 303, 307, 308, 309, 310, 316, 319, 332, 403, 405, 605, 610, 615, 615 note, 615a, 615b, 615c, 615a-1, 616, 620, 621, 623, 623 note, 721, and 1471.

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 Fixed Telephony or MLTS 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, Fixed Telephony and MLTS providers generally have written privacy policies governing the treatment of information collected from their subscribers.

2. *Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.*

Automated Dispatchable Location will be used by Fixed Telephony providers and MLTS operators and managers, and, the entity that operates the Wireline E911 Network, and public safety officials in order to deliver 911 calls to an appropriate emergency answering point with a caller’s validated street address, plus additional information to locate the 911 caller.

¹² See 47 U.S.C. § 151.

¹³ 911 Act § 2(b).

¹⁴ See 911 Act § 3, codified at 47 U.S.C. § 251(e).

¹⁵ Section 506 of the Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018 (RAY BAUM’S Act), Pub. L. No. 115-141, 132 Stat. 348, 1095 (codified at 47 U.S.C. § 615 note).

Alternatively, in non-fixed environments, Manual Updates, Alternative Location Information, or Enhanced Location Information will be used by the MLTS providers, at their option, the entity that operates the Wireline E911 Network, and public safety officials in order to deliver 911 calls to an appropriate emergency answering point with a caller's manually updated location, alternative location information, or enhanced location information.

As part of MLTS notification requirements, MLTS providers will send the applicable location information with a valid callback number to a central location on-site or off-site where someone is likely to see or hear the notification that a 911 call has been made. However, that the notification does not have to include a callback number or location information if it is technically infeasible to provide this information.

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 provide the specific location information for a caller, every telephone capable of dialing 911 must have an ALI record in the 911 database to identify the caller's specific location. Under the Commission's rules, the providers of Fixed Telephony and MLTS must supply location information for every telephone capable of dialing 911. If ALI records are properly entered and maintained in the 911 database, a caller's location will appear on the PSAP display, thus reducing response time for emergency services.

When the providers of Fixed Telephony and MLTS submit location information, the information provided must be an address and city that can be found on the Master Street Addressing Guide (MSAG). The MSAG is a list of street names and permissible numbers entered into the 911 system database used to validate street addresses.

In addition to validated street address, the rules require providers of Fixed Telephony and MLTS to provide a sufficiently precise indication of a caller's location so emergency response services may be dispatched to the specific location of the device used to call 911 (e.g. room number, floor number, etc).

Regarding non-fixed devices that are on or off-premises, E911 requirements apply, but automated dispatchable location may not be feasible. In those use cases, providers of MLTS must rely on alternative options for provisioning and updating 911 location information in the E911 database, including Manual Update, Registered Location and Alternative Location Information.

To meet the obligations set forth in the *2019 Order*:

- (1) Fixed Telephony and MLTS providers will place the Automated Dispatchable Location, Manually Updated Location Information, Alternative Location Information, or Enhanced 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 Fixed Telephony and MLTS providers, 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.

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden.

Entities that make information available in or through ALI Databases do so by electronic means.

Fixed Telephony and MLTS providers will also use electronic means to provide location information via the ALI Database.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

None of the information collected as a result of the 2019 Order will be duplicative of other information.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

The 2019 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. Though 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 Fixed Telephony and MLTS providers to participate in protecting public safety.

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 Fixed Telephony and MLTS services. As described in the introduction above, the Commission minimized the burden of its regulations by providing:

A flexible array of options for respondents that varies by the degree to which dispatchable location is feasible for a particular use case.

An extended transition time for respondents to adapt to the new requirements by delaying compliance dates significantly, i.e., one year for

the readily feasible fixed-device use cases and up to two years for non-fixed use cases that may benefit from additional transition time.

An exemption from the new requirements for all MLTS manufactured or brought into use before February 16, 2020.

A waiver process for respondents that encounter challenges outside their control.

In addition, the Commission minimized the burdens of this regulation by not mandating any particular technical solution.

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. *Explain any special circumstances that would cause an information collection to be conducted in a manner requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years.*

We foresee no circumstances as a direct and proximate result of our requirements that would require respondents to retain records for more than three years.

8. *If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.*

Pursuant to 5 CFR 1320.8(d), the Commission published a 60-day notice in the Federal Register on July 27, 2020 (85 FR 45216). No comments were received.

9. *Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.*

Respondents will not receive any payments or gifts.

10. *Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.*

If applicants want confidential treatment of their filing, they may do so pursuant to 47 CFR § 0.459.

11. *Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the*

questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

This information collection does not address any private matters of a sensitive nature. Nevertheless, in implementing section 222 of the Communications Act, 47 U.S.C. § 222, the Commission's rules impose a general duty on carriers to protect the privacy of customer proprietary network information and carrier proprietary information from unauthorized disclosure.¹⁶

12. Provide estimates of the hour burden of the collection of information.

A. Respondent Burden:

- (1) We estimate that there are up to 3,117 Fixed Telephony providers;¹⁷ but, not all may fall under the category of respondents. As noted above in the *2019 Order*, the Commission affirmed that fixed telephony providers already provide validated street address information with 911 calls, as well as the Commission's view that fixed telephony providers are either already providing floor and room information in multi-story buildings or can readily do so at minimal cost.¹⁸ However, in the absence of definitive data to confirm this view, there may be a subset of fixed telephony providers that are not yet providing validated street address information with 911 calls. We estimate that this subset of fixed telephony providers:
 - (i) Will partner to provide E911 functionality; and/or
 - (ii) Will contract-out the execution of their information collection obligations in order to meet the Commission's regulatory requirements, resulting in significant economies of scale; and that 12 organizations in total will serve this purpose for this subset of fixed telephony providers.
 - (iii) We therefore estimate the number of Fixed Telephony providers (respondents) for implementing the information collection requirements adopted in the 2019 Order to be 12, a number which is smaller than the estimated number (3,117) of Fixed Telephony providers.
 - (iv) Please note that annualized capital and startup costs, which are identified in Item 13, are not included in the figures for this item 12.
- (2) To estimate the number of respondents in the MLTS provider category, we turn to the *2018 Notice of Proposed Rulemaking (2018 Notice)*, where the Commission noted that larger firms, i.e., firms with ten or more employees, based on Small Business Administration data, would be subject to the burdens and costs of provisioning

¹⁶ See generally 47 CFR §§ 64.2001 *et seq.*

¹⁷ U.S. Census Bureau, 2012 Economic Census of the United States, Table No. EC1251SSSZ5, Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012 (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

¹⁸ *2019 Order* at 6669 para. 171.

location information.¹⁹ We estimate the number of such firms at 1,275,624;²⁰ thus, 1,275,624 MLTS providers (MLTS manager and/or MLTS operator and third parties working on behalf of the MLTS manager or operator) are subject to this information collection. We acknowledge that some firms may contract out MLTS services to third parties, but we have no estimate on the number of such contracts due to lack of data.

- (i) We do not anticipate that MLTS providers serving smaller establishments, i.e., establishments employing fewer than ten employees, will be subject to burdens and costs of provisioning location information. In the *2019 Order*, the Commission stated that a street address would likely satisfy the definition of dispatchable location for most of those businesses and would be available to the MLTS operator at without significant cost to the MLTS manager.²¹ Thus, we do not consider smaller firms in estimating the number of MLTS providers for the purpose of this information collection.
 - (ii) Additionally, in the *2019 Order*, the Commission established a multi-year transition for fixed and non-fixed devices.²² For fixed MLTS devices, the Commission established January 6, 2021 as the compliance date, and for non-fixed MLTS devices, the Commission established January 6, 2022 as the compliance date.²³ The Commission concluded that this transition period is appropriate for implementation of the requirements in the *2019 Order*, and that it provides time for development and deployment of improvements in technology that can refine the non-fixed MLTS location process, including improvements to location databases and commercially available device-based technologies.²⁴ After those dates, compliance with the rules adopted in the *2019 Order* will be required, including the new information collection requirements.
- (3) Variable costs have been averaged over the three-year authorized period for the new information collections.

B. Burden hours for Fixed Telephony providers.

¹⁹ *Implementing Kari's Law and Section 506 of RAY BAUM's Act; Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems; Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission's Rules*, PS Docket Nos. 18-261 and 17-239, Notice of Proposed Rulemaking, 33 FCC Rcd 8984, 9017-18 para. 96 (2018) (*2018 Notice*). .

²⁰ See U.S. Census Bureau, Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for the United States and States, Totals: 2016, https://www2.census.gov/programs-surveys/susb/tables/2016/us_state_totals_2016.xlsx (indicating that 626,900 firms have 10-19 employees; 538,283 firms have 20-99 employees; 90,742 firms have 100-499 employees, and 19,699 firms have greater than 500 employees, for a total of 1,275,624 firms with 10 or more employees).

²¹ *2019 Order* at 6656 para. 141, and at 6657 para. 143.

²² *Id.* at 6660 para. 150, and at 6665 para. 160.

²³ 84 FR 66716 (2019).

²⁴ *2019 Order* at 6664 para. 158.

Each Fixed Telephony provider will be required to provide automated dispatchable location with 911 calls. To estimate the burden to 12 Fixed Telephony provider respondents, we estimate the amount of time required to develop and test the necessary software modifications. We assume that eight months will be a sufficient time for developing and testing and deploying the software modifications required for providing dispatchable location, as this would enable fixed telephony providers to begin to comply with our rules. We estimate that six of the eight months will be devoted to software development and deployment, and two of the eight months will be devoted to testing and debugging.

We estimate the burden of developing any software modifications necessary to comply with the rules for each fixed telephony provider entity, will require one full-time software engineer working for six months (1,040 hours). The additional burden of testing and debugging the software (including integration testing, unit testing, and failure testing), will require as many as 12 software engineers working for two months (344 hours). We estimate therefore that 12 respondents would require eight months of engineering labor (1,384 hours) in year 1 to develop software to implement the dispatchable location requirement by the January 6, 2021 deadline.

We estimate negligible recurring burdens in years 2 and 3 for Fixed Telephony providers.

(1) Number of Respondents: 12 (Fixed Telephony providers)

(2) Number of Annual Responses: 4 [(12 (initial responses in year 1) + 0 (recurring responses over the second and third years)) / 3 years]

(3) Annual Burden Hours: 461 [(1,384 initial hours + 0 recurring hours) / 3 years]

C. Burden hours for MLTS providers.

As noted above, the *2019 Order* requires MLTS providers to provide automated dispatchable location from fixed MLTS devices and, if technically feasible, from non-fixed MLTS devices. Over time, the automated generation of location information will reduce costs for Fixed Telephony and MLTS providers and end users.

In cases where automated dispatchable location is not technically feasible by January 6, 2022, for non-fixed on-premises devices, we do not have information to estimate whether MLTS providers will elect to fall back to dispatchable location based on end user manual update, or alternative location information. In cases where automated dispatchable location is not technically feasible by January 6, 2022, for non-fixed off-premises devices, we do not have information to estimate whether MLTS providers will elect to fall back to dispatchable location based on end user manual update, or enhanced location information, which may be coordinate-based, consisting of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost.

In the *2018 Notice*, the Commission anticipated that the most significant costs would be for initial and recurring costs of provisioning location information to MLTS operators.²⁵

²⁵ *2018 Notice* at 9017 para. 95.

To estimate the cost to these enterprises, we estimate the number of employees at the affected enterprises, determine the number of lines and the amount of time needed annually to provision dispatchable location for those lines, and finally determine the total cost for workers paid at an hourly wage to complete the task of creating and maintaining an employee phonebook database.

Data from the Small Business Administration indicate that there are 114,146,818 employees at larger firms (firms with 10 or more employees). In the *2018 Notice*, the Commission estimated that there are 1.1 employees per installed line.²⁶ The Commission noted that larger MLTS providers serving larger firms will need to create and maintain an employee phonebook database that duplicates that used in general enterprise systems, such as Microsoft Outlook. The Commission expected that such duplication will be unnecessary for many enterprises. The Commission also expected that within a few years, this setup cost will become minimal because manufacturers of MLTS and general enterprise systems will increasingly connect their systems, setting up a single phonebook database and making duplication unnecessary.

Initial Responses (year 1). We estimate that affected MLTS providers initially will need to provision dispatchable location for a total of 103,769,834 lines (114,146,818 employees / 1.1 employees per installed line) (i.e., 103,769,834 initial responses). Although each respondent's initial burden will vary based the number of lines in its own MLTS, we estimate that on average, each respondent will handle 83 initial responses (103,769,834 responses / 1,275,624 respondents).

Recurring responses (years 2 and 3). Affected MLTS providers are likely to face recurring burdens to maintain employee phonebook databases. An industry rule-of-thumb is that 5% of endpoints will require a change of provisioning (moves, adds, or changes) in a year. We estimate 10,376,984 total recurring responses over the second and third years (103,769,834 total lines x 5% x 2 years).

The Commission expected that task of entering names and room numbers into an employee phonebook database will be done by clerical staff members providing administrative support to the enterprises.²⁷ Each response consists of entering one installed line phone number or extension and associated employee name and location information into the database. The Commission estimated the incremental burden to be 1 minute per line. To estimate the burden to these affected MLTS providers, we use this 1-minute estimate as the time required for an in-house clerical staff worker either to enter or change the dispatchable address of an MLTS endpoint.

(1) Number of Respondents: 1,275,624 (MLTS providers).

(2) Number of Annual Responses: 38,048,940 [(103,769,834 (initial responses in year 1) + 10,376,984 (recurring responses over the second and third years)) / 3 years].

(3) Annual Hour Burden: 634,149 [38,048,940 annual responses / 60 responses per hour]

²⁶ *Id.* at 9017-18 para. 96.

²⁷ *2018 Notice* at 9018 n. 154.

Total Respondents: 1,275,636 respondents [12 Fixed Telephony providers + 1,275,624 MLTS providers]

Total Annual Responses: 38,048,944 responses [4 + 38,048,940]

Total Annual Burden Hours: 634,610 hours [461 + 634,149]

(D) *In-house costs.*

We assume that Fixed Telephony providers will incur zero in-house costs for software development burdens described above in 12.B. We estimate outside costs for Fixed Telephony providers in Question 13 below.

The annual in-house cost to Fixed Telephony providers: \$0.

We assume that MLTS providers will incur in-house costs to provide dispatchable location. Specifically, we estimate the costs for in-house clerical staff to enter dispatchable location information and changes in employee phonebook databases, using the annual hour burden for MLTS providers described above in 12.C. Therefore, we assume these in-house costs will be incurred as follows.

The hourly compensation rate of in-house clerical staff is \$28.23.²⁸

The annual in-house cost to MLTS providers is \$17,903,155 [\$28.23/hour x 634,189 hours].

Total Annual In-House Costs to all Respondents: \$17,903,155

13. Provide an estimate for the total annual cost burden to respondents or record keepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected on the burden worksheet).

(A) *Fixed Telephony providers.*

We assume that Fixed Telephony providers will incur capital/start-up costs to provide dispatchable location. We base our estimates on the burden analysis for software development from 12.B, and on the cost of outside workers paid at hourly wages to complete this task. The hourly rate for an outside software engineer is \$92.47.²⁹

²⁸ The U.S. Department of Labor reports that for December 2019, the nationwide average cost for an hour of work in Office and Administrative Support Service was \$28.23 (32.8% of which consists of benefit costs). These private industry figures are obtained from the civilian economy, which includes data from both private industry and state and local government. Excluded are the self-employed and farm and private household workers. Bureau of Labor Statistics, Economic New Release, Employer Costs for Employee Compensation (March 19, 2020), <https://www.bls.gov/news.release/ecec.nr0.htm> at Table 2.

²⁹ We observe that software engineers in the ninetieth percentile for their field are compensated at a rate of \$92.47 per hour, which is total compensation based on an hourly rate of \$61.65. See Payscale, Software Engineer, http://www.payscale.com/research/US/Job=Software_Engineer/Salary (last visited June 17, 2020). According to Bureau of Labor Statistics, benefits (including paid leave, supplementary pay, insurance, retirement and savings, and legally required benefits) add 50% to compensation for the information industry as a whole, and for the category including management, professional, and related. See Bureau of Labor Statistics, Employer Costs for Employee Compensation Supplementary Tables March 2016, Table 8, page 9, <http://www.bls.gov/ncs/ect/sp/ecsuptc38.pdf>.

We assume that Fixed Telephony providers not will incur any costs for total operation and maintenance and purchase of services.

Annual Outside Costs for Fixed Telephony providers: \$1,911,540 [12 respondents x \$92.47/hour x ((1 engineer x 1,040 hours) + (12 engineers x 344 hours)) / 3 years].

(B) MLTS providers.

In 12.A.2, we acknowledged that some firms in the MLTS provider category of respondents may contract out MLTS services to third parties, but we have no estimate on the number of such contracts. Therefore, we do not estimate average timetables for such contracts to be financed. Accordingly, we estimate zero outside costs for MLTS providers.

Total Annual Costs: \$1,911,540

14. Provide estimates of annualized costs to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

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 \$55.75 per hour to review the complaint or query that is filed, each requiring approximately 10 minutes to review.

12 responses x 0.166 hours/response x \$55.75/hour = \$111.

15. Explain the reasons for any program changes or adjustments reported.

This is a new information collection resulting in program changes/increases to the total number of respondents of 1,275,636; total annual responses of 38,048,944; total annual burden hours of 634,610; and total annual costs \$1,911,540, as a result of FCC 19-76.

16. For collections of information whose results will be published, outline plans for tabulation and publication.

The data will not be published for statistical use.

17. If seeing approval to not display the expiration date for OMB approval of the information collection, explain the reason that a display would be inappropriate.

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.

We therefore add 50% of this hourly rate, or \$30.82, for benefits to arrive at an hourly compensation rate of \$92.47.

**18. Explain each exception to the topics of the certification statement identified in
“Certification for Paperwork Reduction Act Submissions.”**

There are no exceptions to the Certification Statement.

B. Collections of Information Employing Statistical Methods:

This information collection does not employ any statistical methods.