

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Implementing Kari's Law and Section 506 of RAY BAUM'S Act)	PS Docket No. 18-261
)	
Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems)	PS Docket No. 17-239
)	

COMMENTS OF THE VOICE ON THE NET COALITION

VOICE ON THE NET COALITION

Glenn S. Richards
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street, NW
Washington, DC 20036
(202) 663-8000

December 10, 2018

Its Attorney

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EXECUTIVE SUMMARY

VON and its members have worked closely with the Commission and public safety organizations for more than 15 years on developing the appropriate regulatory framework for introducing and improving E911 functionality for IP-enabled communications services. Commission action in this proceeding should be balanced with consumer expectations, technological limitations, and the realities of the marketplace. As discussed in more detail below: (1) the Commission need not require dispatchable location information from providers of fixed interconnected Voice over Internet Protocol (“VoIP”) because in most cases that information is already collected and made available to PSAPs; (2) there are currently technical limitations to nomadic interconnected VoIP service providers making available dispatchable location information; (3) Consumers do not expect to make 911 calls from outbound-only VoIP services; (4) the Commission’s proposed interpretation of multi-line telephone systems in Kari’s Law is overly broad; and (5) small businesses should be exempt from the Kari’s Law notification requirement.

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To: The Commission

COMMENTS OF THE VOICE ON THE NET COALITION

The Voice on the Net Coalition (“VON”)¹ hereby submits these comments in response to the Commission’s Notice of Proposed Rulemaking (“NPRM”) in the above-captioned proceedings.²

BACKGROUND

On September 26, 2018, the Commission released the NPRM, which, following legislative directives, seeks comment on ways to improve access to 911 and the accuracy of 911 call location information through implementation of Section 506 of RAY BAUM’s Act (“RAY BAUM’s Act”)³ and Kari’s Law Act (“Kari’s Law”).⁴ RAY BAUM’s Act, in part, requires the Commission to consider the feasibility of requiring dispatchable location for 911 calls from

¹ VON is the leading advocacy organization for the Internet communications industry, working with policymakers to develop policies that support the availability and adoption of Internet communications products and services. For more information, see www.von.org.

² *Implementing Kari’s Law and Section 506 of RAY BAUM’S Act*, PS Docket Nos. 18-261 and 17-239, Notice of Proposed Rulemaking, FCC 18-132 (rel. Sept. 26, 2018) (“NPRM”).

³ Section 506 of the Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018, Pub. L. No. 115-141, 132 Stat. 348, 1095 (codified at 47 U.S.C. § 615 note) (“RAY BAUM’S Act”).

⁴ Kari’s Law Act of 2017, Pub. L. No. 115-127, 132 Stat. 326 (2018) (codified at 47 U.S.C. § 623) (“Kari’s Law”).

multi-line telephone systems (“MLTS”) and other technological platforms that currently complete calls to 911.⁵ RAY BAUM’s Act and Kari’s Law define MLTS as “[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.”⁶ The Commission proposes to interpret the definition of MLTS to “include the full range of networked communications systems that serve enterprises, including circuit-switched and IP-based enterprise systems, as well as cloud-based IP technology and over-the-top applications . . . [and] enterprise-based systems that allow outbound calls to 911 without providing a way for the PSAP to place a return call.”⁷ The Commission seeks comment on its proposed interpretation of MLTS.⁸

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 The Commission seeks comment on whether the transmission of dispatchable location should be required for fixed¹⁰ and nomadic¹¹ VoIP, MLTS, fixed telephone service, and Telecommunications Relay Service.¹² The Commission seeks comment on the technical feasibility of the proposed rules and a comparison

⁵ RAY BAUM’s Act § 506(a); NPRM ¶ 2.

⁶ NPRM ¶ 28; 47 U.S.C. 1471.

⁷ NPRM ¶ 29.

⁸ *Id.* ¶ 30.

⁹ RAY BAUM’s Act § 506(c)(2); NPRM ¶ 53.

¹⁰ Fixed VoIP is interconnected VoIP service from a single fixed location, such as a residence. NPRM ¶ 73.

¹¹ Nomadic VoIP is interconnected VoIP service that moves from one fixed location to another. NPRM ¶ 73.

¹² NPRM ¶ 51.

of the costs and benefits.¹³ It also seeks comment on whether other 911-capable services such as outbound-only VoIP should be subject to the dispatchable location proposal, and the Commission’s 911 rules generally.¹⁴ In addition, the Commission seeks comment on its proposed compliance date of February 16, 2020, which is also the statutory compliance date of Kari’s Law.¹⁵

Kari’s Law requires operators of MLTS to allow users to dial 911 directly, without having to dial a “9” or any other prefix to reach an outside line.¹⁶ It also requires MLTS operators to provide a notification that a 911 call has been placed by the caller.¹⁷ Under the Commission’s proposed rules, the notification would be required to include: (1) the fact that a 911 call has been made; (2) a valid callback number; and (3) the information about the caller’s location that the MLTS conveys to the Public Safety Answering Point (“PSAP”) with the call to 911. According to the NPRM, the notification requirement “will potentially benefit three parties: (1) the 911 caller by speeding response time; (2) enterprise management and staff by providing needed information and reducing confusion and delay when emergency response teams arrive; and (3) first responders by reducing time spent responding to such calls.”¹⁸ The Commission

¹³ See *Id.* ¶¶ 89-109.

¹⁴ See *Id.* ¶¶ 56-84.

¹⁵ *Id.* ¶¶ 87-88.

¹⁶ Kari’s Law § 721(a)-(b); NPRM ¶ 18. Under the proposed rules, the direct dialing requirement would be mandatory for “persons engaged in the business of manufacturing, importing, selling, or leasing MLTS, as well as persons engaged in the business of installing, managing, or operating MLTS.” NPRM ¶ 18.

¹⁷ Kari’s Law § 721(c); NPRM ¶ 19. Under the proposed rules, “a person engaged in the business of installing, managing, or operating MLTS shall, in installing, managing, or operating the system, configure it to provide a notification that a 911 call has been placed by a caller on the MLTS system.” NPRM ¶ 19.

¹⁸ NPRM ¶ 19.

seeks comment on, among other things, and how the notification requirement should be applied to small businesses.¹⁹

DISCUSSION

I. Fixed VoIP Providers Generally Make Available Dispatchable Location Information; an Additional Regulatory Obligation is Unnecessary

The NPRM seeks comment on the Commission’s tentative conclusion that “[w]ith respect to fixed VoIP, we believe it is feasible for 911 calls that originate from interconnected VoIP services to convey dispatchable location to the PSAP, in that the current Registered Location obligations are sufficient for this purpose.”²⁰ The NPRM explains that “Registered Location information that is already conveyed with such calls today typically includes street address information, which should be sufficient for dispatchable location in the case of single family homes and small buildings,”²¹ and that service providers can “enable customers in multi-story buildings and similar environments to provide room or floor level information as part of the Registered Location when needed.”²²

VON generally agrees with the Commission’s tentative assessment that current Registered Location obligations are sufficient to meet the definition of dispatchable location, and that such location information is already being conveyed. However, it is for this very reason that new rules for fixed VoIP providers are unnecessary. Indeed, the dispatchable location requirement would be duplicative of what is occurring in practice. Technology has improved such that customers now demand the ability to provide additional location information, including

¹⁹ *Id.* ¶ 27.

²⁰ NPRM ¶ 74. Registered Location is “[t]he most recent information obtained by an interconnected VoIP service provider that identifies the physical location of an end user.” 47 C.F.R. ¶ 9.3.

²¹ NPRM ¶ 74.

²² *Id.*

room and floor information where applicable, and VON members respond to these customer requirements. There is no need for the Commission to impose a regulatory mandate where a consumer mandate already exists.²³

II. Nomadic Interconnected VoIP Providers Should Not be Required to Make Available Dispatchable Location Information

Unlike fixed VoIP where the address is always static, nomadic interconnected VoIP customers can access services from any broadband location. These services may also originate from apps or soft clients on laptops, PDAs, or other mobile devices; not just from traditional VoIP handsets. Current FCC rules require that interconnected VoIP providers make available a mechanism for customers to update their location information to ensure proper routing of 911 calls. Notwithstanding, users do not always update their location information, even when prompted to do so (particularly if using the interconnected VoIP capability on a laptop or other device that regularly moves with them throughout the day). Moreover, users may not know the address where they are located, or may provide incorrect information. The variation of types of devices and broadband connections to originate calls further complicates the ability of interconnected VoIP providers to make available accurate location information or even identify the appropriate PSAP. It is not unusual in these circumstances for nomadic interconnected VoIP 911 calls to be routed to a third-party emergency call center, where the caller provides an address and is then routed to the appropriate PSAP.

²³ Chairman Pai has consistently sought to decrease unnecessary regulation when the public interest would not be harmed, as is the case here. *See e.g., Revisions to Public Inspection File Requirements – Broadcaster Correspondence File and Cable Principal Headend Location*, MB Docket No. 16-161, Report and Order, FCC 17-3 at Statement of Chairman Pai (rel. Jan. 31, 2017) (“In all, this action reduces regulatory burdens on commercial broadcasters and cable operators without adversely affecting the public interest.”).

VON appreciates that the Commission’s proposed rules do not require nomadic interconnected VoIP providers to make available dispatchable location information.²⁴ As the Commission has acknowledged, providing such location information should be voluntary, and where provided voluntarily, subject to the same liability protections afforded service providers subject to a regulatory obligation.²⁵ While progress has been made, certain limitations currently make it difficult for nomadic VoIP providers to convey reliable, timely, and accurate dispatchable location to the correct PSAP. The Commission has long understood these challenges. In the 2005 First Report and Order (“2005 Order”),²⁶ the Commission stated that the “mobility enabled by a VoIP service that can be used from any broadband connection creates challenges similar to those presented in the wireless context. These ‘portable’ VoIP service providers often have no reliable way to discern from where their customers are accessing the VoIP service.”²⁷ As discussed below, the challenges identified by the Commission in 2005 remain today.

Under the proposed rules, providers of nomadic interconnected VoIP must be able to (1) identify whether the service is being used from a different location than the Registered Location, and if so, either prompt the user to update the Registered Location or update the Registered Location automatically, or (2) obtain the user’s dispatchable location at the time the user initiates a 911 call without requiring additional action by the user.²⁸ The NPRM seeks comment on this

²⁴ NPRM at Appendix A § 9.11(b)(4).

²⁵ *See Id.*

²⁶ *See IP-Enabled Services, et al.*, First Report and Order and Notice of Proposed Rulemaking, FCC 05-116 (“2005 Order”).

²⁷ *Id.* ¶ 25. The Commission went on to state that “[t]he record demonstrates that there currently are no solutions that allow a provider of portable VoIP services to determine the location of an end user absent the end user affirmatively telling the service provider where he or she is.” *Id.* ¶ 25 n.81.

²⁸ NPRM at Appendix A § 9.11(b)(4).

proposal, and asks whether “Registered Location [is] a sufficient proxy for dispatchable location in a nomadic environment, where the relevant device is able to prompt the user for an updated location when it has been moved[.]”²⁹ However, the Commission recognizes the limitations when it states that a “Registered Location that was recorded when service was initiated is less likely to accurately identify the real-time location of an end user that moves frequently between home, work, and other locations.”³⁰ Indeed, there are several reasons why location information may be inaccurate for such users: (1) not all devices are capable of prompting users for an updated location; (2) providers cannot guarantee that a prompt will always occur when the call is from a web-based client; and (3) the burden is on the user to update the Registered Location whenever the user changes location,³¹ and given the global nature of nomadic VoIP service, this new location could be anywhere in world. If no update is provided, the Registered Location will be incorrect. As a result, Registered Location in a nomadic environment may not be a consistently reliable proxy for dispatchable location.³²

The NPRM next asks whether “nomadic interconnected VoIP providers have, or can develop in the near term, the means to provide automatic dispatchable location with 911 calls in lieu of conveying the customer’s Registered Location.”³³ Progress has been made towards the ability to automatically locate 911 calls, particularly with commercial and handset-based location

²⁹ *Id.* ¶ 75.

³⁰ *Id.*

³¹ *Id.* ¶ 76.

³² *See Id.* ¶ 56. In certain circumstances location information may be discernible from the customer’s fixed broadband or WiFi connection; but at this point it is unclear whether nomadic VoIP providers would have access to that information; and even if they did, whether that information would be enough to identify and route to the appropriate PSAP.

³³ *Id.* ¶ 76.

services.³⁴ However, these technologies remain under development. Before considering rules that may require the use of such location services, these services should be verified as accurate, reliable, and secure enough for emergency calls.

For example, solutions that require the monitoring of customer network information at layer 2 to identify MAC addresses may not be viable from a cybersecurity and consumer privacy perspective. Furthermore, web-based clients may not have access to location data without consent from users. If a user declines to provide consent, it raises the question of who bears the risk for inaccurate location information if 911 is called.

If the Commission ultimately decides to impose additional 911 obligations on nomadic VoIP providers, the compliance deadline should be longer than the proposed date of February 16, 2020. VON recommends that any requirement not become effective for at least 24 months after the effective date of the implementing order. This will allow industry time to develop and test the software modifications that would be necessary for compliance.³⁵

III. The Commission Should Not Impose 911 Requirements on Outbound-Only VoIP³⁶

The 911 rules should not be extended to outbound-only VoIP because consumers of outbound-only VoIP do not expect 911 functionality. In its 2005 Order, the Commission reasoned that where a service acts as a substitute for “regular telephone service,” consumers may reasonably expect that they can call for emergency assistance.³⁷ Using this principle, the

³⁴ See *Final Report, Task 2: 911 Location-Based Routing*, Working Group I, Evolving 911 Services, The Communications Security, Reliability, and Interoperability Council V at 16-20 (rel. Sept. 2016).

³⁵ See NPRM ¶ 99. In addition, implementation requirements may require lengthy audits of customer data, and studies to identify potential cybersecurity and consumer privacy threats.

³⁶ AT&T does not support the position taken in this Section III.

³⁷ See 2005 Order ¶ 23 (“The record clearly indicates, however, that consumers expect that VoIP services that are interconnected with the PSTN will function in some ways like a ‘regular telephone’ service. At least regarding the ability to provide access to emergency services by dialing 911, we find these expectations to be reasonable.”).

Commission wisely established clear definitional boundaries that have themselves created explicit, and now well-settled, consumer expectations about what types of products and services are replacements for traditional telephone service, while also facilitating investment and innovation in complementary and incidental VoIP services. This principle has served as a workable and reliable standard and should not be abandoned.

For example, in 2011, the Commission sought comment on extending 911 obligations to outbound-only VoIP.³⁸ In that proceeding, VON explained that consumer expectations for one-way VoIP were different than expectations for regular telephone service.³⁹ In fact, the features that consumers expect with outbound-only VoIP services, such as video calling, instant messaging, and screen sharing are not features associated with traditional telephone service.

The imposition of 911 requirements on outbound-only VoIP would also harm innovation. New regulations would create a disincentive for manufacturers, software developers, and application providers – many of whom are not otherwise subject to Commission jurisdiction – to add voice capability to emerging services and applications that were designed for purposes and market segments other than serving as a functional substitute for telephone services. For example, the developer of a transportation ride-sharing application that is considering the inclusion of outbound-only voice capability may choose not to include such a feature to avoid

³⁸ *Amending the Definition of Interconnected VoIP Service in Section 9.3 of the Commission's Rules, et al.*, FCC 11-107, Notice of Proposed Rulemaking, Third Report and Order, and Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 10074 (2011).

³⁹ See Comments of VON, WC Docket 05-196, *et al.* at 4 (filed Oct. 3, 2011); see also Comments of Skype Communications S.A.R.L., WC Docket 05-196, *et al.* at 12-18 (filed Nov. 2, 2011) (finding that: (1) Skype is a secondary channel for personal and business communications; (2) Skype is used primarily for international communications; (3) Skype users are highly unlikely to replace their existing telephone services with Skype. Most other communication channels are unlikely to be replaced by Skype; (4) almost all Skype users have a mobile phone and/or traditional landline available for use at the location in which they use Skype; and (5) a negligible number of users trust Skype to call 911 and very few users would be likely to use the program to place an emergency call).

the expenditure of time and money that it would take to comply with the Commission's 911 rules.

Similarly, the increased costs to manufacturers, developers, and service providers of complying with new 911 requirements would likely be passed onto consumers. Currently, most outbound-only VoIP services are free. It is unlikely that service providers would absorb the additional costs, which are estimated at 10 to 20 cents per line, per month, regardless of whether the line is used to make a 911 call, plus a one-time setup fee of \$15,000 to \$25,000.

IV. The Commission's Proposed Interpretation of MLTS in Kari's Law is Overly Broad

The Commission's proposed interpretation of MLTS in Kari's Law is overly broad, and as discussed by Commissioner O'Rielly, "stretch[es] the law in directions not necessarily intended."⁴⁰ As proposed, the term could cover any business with more than one line using a cloud PBX, and could therefore essentially turn any interconnected VoIP service into MLTS (or vice versa).⁴¹ Such an outcome does not align with the statutory definition of MLTS in 47 U.S.C. 1471, to which Kari's Law adheres.⁴² Indeed, the definition does not include cloud-based IP technology,⁴³ and there is nothing in the text of Kari's Law that suggests such systems should be included in the definition.⁴⁴ This point becomes clearer when compared with RAY BAUM's Act, which directs 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 [MLTS]."⁴⁵ In contrast, Kari's Law does not discuss other

⁴⁰ NPRM at Statement of Commissioner Michael O'Rielly at 1.

⁴¹ *See Id.* ¶ 29.

⁴² *See* 47 U.S.C. 1471.

⁴³ *Id.*

⁴⁴ *See* Kari's Law.

⁴⁵ RAY BAUM's Act § 506(a) (emphasis added).

technological platforms and focuses solely on MLTS as defined in 47 U.S.C. 1471.⁴⁶ As a result, the NPRM’s proposed interpretation of MLTS goes farther than the law allows, and should be limited to those systems provided for in 47 U.S.C. 1471.⁴⁷

V. Small Businesses Should be Exempt from the Kari’s Law Notification Requirement

Small businesses should be exempt from the Kari’s Law notification requirement. As the NPRM states, “[s]mall businesses are less likely to have personnel controlling access, and first responders may not need the same level of assistance to reach a 911 caller.”⁴⁸ Indeed, it would not make sense, for example, to require a notification for a business with under 50⁴⁹ lines located on one floor in a contiguous workspace of less than 40,000 square feet.⁵⁰ In such a scenario, the notification would go to someone near the caller when 911 is dialed. As a result, it would not benefit the three parties that are meant to benefit from the notification requirement.⁵¹ First, it would not benefit a small business’s staff because they would be aware of the call and the location of the caller. It would also not reduce confusion and delay when first responders arrive because, with or without the notification, a small business’s staff would know that the call was placed and be able to assist first responders. Indeed, the level of staff assistance to first responders would not be impacted by the notification. Second, it would not benefit first responders by “reducing time spent responding” because, as described above, they would receive

⁴⁶ See Kari’s Law; 47 U.S.C. 1471.

⁴⁷ *Id.*

⁴⁸ NPRM ¶ 27.

⁴⁹ Due to the nature of modern voice communications, businesses may have lines that are not assigned to human users, and as a result, a business may have many more lines than people using those lines.

⁵⁰ States have implemented similar exemptions involving MLTS laws. For example, Alaska enacted the following exemption: “[a]n MLTS provider with less than 50 telephones shall program its system to allow users to dial 911 automatically without first dialing a prefix such as 9, if technically feasible.” 3 AAC 53.425(b). In addition, Minnesota limited certain 911 location identification requirements for businesses with workspaces of less than 40,000 square feet, located on a single floor, and on a single contiguous property. Minn. Stat. § 403.15, Subd. 5.

⁵¹ See NPRM ¶ 19.

the same level of support from a small business's staff whether there was a notification or not.⁵²

Third, it would not benefit the 911 caller because first responder response time would not be impacted by the notification.⁵³

Furthermore, the final rules should make clear that service providers and installers are not responsible for determining whether a business satisfies any small business exemption.

Responsibility should be on business owners as they are in the best position to determine whether their business meets the exemption requirements (i.e., the square footage of their workspace and all lines that are associated with their business). Such a provision will give service providers, installers, and owners a clear understanding of their respective responsibilities.

CONCLUSION

The VON Coalition asks the Commission to act in accordance with the recommendations herein.

Respectfully submitted,

VOICE ON THE NET COALITION

/s/ Glenn S. Richards
Glenn S. Richards
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street, NW
Washington, DC 20036
(202) 663-8000

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Its Attorney

⁵² *Id.*

⁵³ *Id.*; In addition, the Kari's Law notification requirement should not extend to businesses with distributed workforces. Indeed, it would not make sense, for example, to require a notification for a business with one central office but otherwise comprised of hundreds of people that work across the country or internationally in small satellite offices, shared workspaces, or in their homes. In such a scenario, a 911 call placed by a person working from a satellite office would trigger a notification to someone at the central office, who would not be able to aid first responders when they arrive at the satellite office or otherwise speed first responder response time.