

**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 RINGCENTRAL, INC.

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I. INTRODUCTION

RingCentral, Inc. (“RingCentral”) is a leading provider of communications services to large and small business customers. The company delivers voice communications, cloud PBX, and unified communications, including team messaging, video and web conferencing, and cloud contact center solutions, in a single integrated platform for global delivery. More flexible and cost efficient than legacy on-premises communications systems, RingCentral empowers today’s mobile and globally-distributed workforce to communicate, collaborate, and connect from anywhere, on any device.

RingCentral’s customers demand robust 911 solutions, and RingCentral succeeds by innovating to meet those needs.¹ In RingCentral’s experience, enterprise customers have a wide range of communications needs, and may require customized 911 solutions to meet particular deployment or user challenges. RingCentral welcomes the opportunity to work with its customers to design solutions that meet their needs and their desire to protect their users. Because RingCentral is software-based, and thus quickly adaptable to customer needs, RingCentral is able to design and implement unique solutions to customer demands, including for emergency calling services.² Once RingCentral has developed these solutions, it is often able to roll them out to its entire customer base.³

The marketplace has rewarded RingCentral’s responsiveness to customer needs. RingCentral is the worldwide market share leader in both revenue and subscriber seats for

¹ See Comments of RingCentral, Inc. at 2, PS Docket No. 17-239 (filed Nov. 15, 2017) (describing RingCentral’s solutions to customers’ 911 needs) (“RingCentral ECS Comments”).

² *Id.* at 3.

³ *Id.*

unified communications as a service.⁴ RingCentral has also been recognized as a 2018 UCaaS market leader for completeness of vision and ability to execute.⁵

RingCentral's experience illustrates the importance of regulatory solutions that maximize public safety, provide customers with the flexibility they demand, and recognize the limits of today's technology. RingCentral recognizes the importance of improving 911 access and response,⁶ but the Commission should ensure that its rules address the realities of technology and allow companies like RingCentral to continue to develop innovative solutions. Specifically, the Commission should (1) clarify that the MLTS rules only apply on-location at sites where MLTS is deployed and the owner controls the network ("on-site"); (2) clarify allocation of responsibility for MLTS requirements; and (3) ensure interconnected VoIP location update requirements are technically feasible.

II. THE MLTS REQUIREMENTS FOR NOTIFICATION AND DISPATCHABLE LOCATION SHOULD ONLY APPLY ON-SITE AT FACILITIES WHERE MLTS IS DEPLOYED.

The FCC should make clear that its MLTS notification and dispatchable location requirements apply on-site at the individual facilities where MLTS is deployed and the owner controls the network. In those settings, both the notification and the dispatchable location

⁴ RingCentral, "RingCentral Breaks Away From the Competition as UCaaS Market Leader According to Latest Synergy Research Group Report" (Oct. 19, 2017), *available at* <http://ir.ringcentral.com/file/Index?KeyFile=390703444>.

⁵ RingCentral, "RingCentral Named a Leader in the Gartner Magic Quadrant for Unified Communications as a Service, Worldwide Report" (Oct. 15, 2018), *available at* <https://www.ringcentral.com/whyringcentral/company/pressreleases/pressreleases-2018/ringcentral-named-a-leader-in-the-gartner-magic-quadrant-for-unified-communications-as-a-service-worldwide-report.html>.

⁶ *Implementing Kari's Law and Section 506 of RAY BAUM'S ACT*, Notice of Proposed Rulemaking, FCC 18-132, PS Docket Nos. 18-261 and 17-239 ¶ 1 (rel. Sept. 26, 2018) ("NPRM").

requirement will advance public safety and fulfill Congress' intent in passing Kari's Law and RAY BAUM'S Act. But the rules as currently proposed contain some ambiguity that, if not clarified, could mean that these requirements would go far beyond the traditional MLTS settings of educational and enterprise campuses, hotels, government buildings and the like, potentially sweeping in very small systems and systems that serve a distributed and highly mobile workforce—settings where the proposed notification and dispatchable location requirements are not a good fit.

A. The MLTS Notification Requirement Should Be Limited to MLTS That Has Been Deployed On-Site.

The Commission should clarify that the MLTS 911 notification requirement only applies where a 911 call using MLTS is made from an on-site location. The Commission's proposed rules confirm this is the correct application of the notification requirement: in the proposed MLTS rules defining "obligation of installers, operators and managers," for example, the notification requirement includes language that notification can be provided "at the *facility where the system is installed*,"⁷ indicating that the Commission was contemplating that the notification requirement would only apply to MLTS deployed on-site at a facility. This is an appropriate limitation, and one that the Commission should make even more express.

Applying the notification requirement outside of the on-site MLTS setting would have little value. For example, in a traditional enterprise campus setting, the MLTS notification will work exactly as intended. As the Commission observes, sending notification of a 911 call to centralized security or facilities personnel may save time and lives by facilitating access and providing emergency responders with directions within the campus.⁸ Similarly, in enterprise

⁷ NPRM at App'x A (Proposed Rules), §§ 9.16(b)(2) (emphasis added).

⁸ NPRM at ¶ 19.

MLTS settings where the MLTS owner controls the network, the enterprise likely has (or has access to) tools that permit the network to detect user movement from access point to access point within the campus, information that can be used to provide a highly accurate, real-time dispatchable location when a user places a 911 call.

The same is not true for a highly distributed workforce that shares a single multi-line voice system, nomadic users while they are off the enterprise campus, or a small location. Among its wide range of customers, RingCentral has many customers that use RingCentral to provide centralized phone numbers and extensions for a workforce that is working from home, the road, remote offices, or a mix of all of the above. In these settings, there may be no centralized location to receive a 911 call notification, the centralized location may be miles or states away from the emergency and have no special knowledge of the location where the emergency arose, or a single multi-line voice system may be deployed at multiple locations.

For example, employers may not know where their remote workers are located on a given day, and requiring them to keep access to that information would be unnecessarily burdensome. Further, for there to be any value to notification in a setting with a distributed workforce, employers would need to know the precise location of remote workers, even where a particular enterprise has determined that this knowledge is unnecessary. But as the Federal Trade Commission and myriad other regulators have determined, precise geolocation information is particularly sensitive information. Automatically releasing this information to employers is not necessary: when a remote worker calls 911, most remote employers have no need to know the employee's precise geolocation. Indeed, employers who allow workers to be located anywhere may not wish to know exactly where a far-flung worker is in the event of an emergency, as such knowledge could create legal obligations of its own. Accordingly, the Commission should make

clear that any notification responsibilities for users that are off-site should be determined by the MLTS customer. Only the customer (i.e., the operator or manager of the MLTS, under the Commission’s proposed rules), not the MLTS provider (i.e., the manufacturer or seller, and in some cases the installer), will be in a position to know whether and how best to use notification capabilities. Thus, even where providers make this capability available, they should not be put in the position of second-guessing their customers’ deployment choices.

B. The Dispatchable Location Requirement Should Not Apply Off-Site, Outside of the Enterprise Campus Setting.

The dispatchable location requirements also raise concerns if applied outside of the enterprise campus setting. On-site at an enterprise campus where the MLTS owner controls the network, the MLTS typically can be equipped to detect user location, including when moving around within the enterprise campus. This may be possible even where the campus encompasses multiple buildings or sites. But when a user goes off-site and leaves the enterprise network, it may not be possible to locate that user or even detect that the user has moved.

The new dispatchable location requirement, if applied off-site, could force providers to discontinue or substantially modify innovative solutions such as browser-based applications, even though they have long proven useful to consumers.⁹ Specifically, the proposed rules prohibit manufacturing a multi-line telephone system “unless such system is pre-configured such that, when properly installed in accordance with subsection (b), the dispatchable location of the caller is conveyed to the PSAP with 911 calls.”¹⁰ Without clarification that the dispatchable location requirements only apply for 911 calls made using MLTS that is deployed *on-site*, there

⁹ See Section IV, *infra*, which discusses in more detail the challenges of detecting user location with browser-based applications.

¹⁰ NPRM at App’x A (Proposed Rules), § 9.16(a)(2).

will be ambiguity as to whether MLTS operators (i.e., the companies themselves), installers, manufacturers, importers, sellers, and lessors are subject to these requirements for any multi-line voice system capable of off-site use.

The Commission should avoid creating requirements that create uncertainty, risk limiting innovation, and constrain consumer choice. Thus, the Commission should make clear that dispatchable location requirements only apply to *on-site* MLTS. Specifically, the dispatchable location requirements for MLTS should apply to sites that have 50 or more lines and where the MLTS owner controls the network. This clarification will not create a public safety gap, as use outside of these thresholds would default to the underlying service rules, such as the interconnected VoIP requirements.

C. The Commission's MLTS Rules Should Incorporate Flexibility for Small Enterprise Sites.

Certain small enterprise sites, whether small businesses or simply smaller locations of larger businesses, present yet different challenges. Where a customer has a small number of lines at a single location, providing notification of a 911 call to a central location is likely to be duplicative, unnecessary, and potentially confusing to both the customer and emergency responders. Small companies may also lack the means to hire an outside party to receive notifications. To be sure, as the Commission has noted, notification can be useful in the small business context.¹¹ But a sweeping requirement that *all* small businesses adopt notification would be far too broad to serve the varying needs of this group of customers.

These examples highlight the need to provide owners and operators the freedom and flexibility to deploy MLTS in a manner that best meets the needs of their business. Customers

¹¹ NPRM ¶ 27.

are in the best position to make the determination of whether notifications would serve a useful purpose in their particular business setting, based on the number of users at a given location.

Similarly, the entire office may share the same dispatchable location—a location that RingCentral is already providing to PSAPs pursuant to the existing interconnected VoIP rules. Indeed, many states have recognized the limited utility of MLTS rules for small businesses and limited the application of their MLTS requirements to businesses of a certain size.¹²

The legislative history makes clear that the focus of the notification and dispatchable location requirements is large enterprise settings where the enterprise controls the network. In its section-by-section explanation of Kari’s Law, for example, Congress explained that MLTS “serve[s] multiple telephone users *at a single site*, often an office building, hotel, university campus, or similar location.”¹³ With respect to the notification requirement, Congress noted that it was “intended to assist first responders in their emergency response by providing access and information needed to locate the caller. This can be particularly important in *large buildings like hotels, hospitals, and schools*, where on-site personnel are uniquely suited to provide information about the building and its occupants.”¹⁴ Likewise, in presenting the bill underlying Section 506 of RAY BAUM’s Act for vote, Representative Walden noted that the bill included “the

¹² See, e.g., 560 CMR 4.04 (Massachusetts requirements governing MLTS, containing exemptions for businesses with less than 7,000 square feet in a single contiguous property or fewer than 49 stations and 22,500 square feet in a single contiguous property); Va. Code. §§ 56-484.19 (Virginia requirements, providing alternative compliance for facilities with contiguous areas of fewer than 7,000 square feet); RCW 80.36.560 (Washington requirements for enhanced 911 for business service limited to businesses exceeding 25,000 square feet, businesses on more than one floor of a building, or businesses in multiple buildings); 50 ILCS 750/15.6 (Illinois Enhanced 9-1-1 service and business service requirements, limiting requirements based on, among other things, whether a building has less than 40,000 square feet).

¹³ 163 Cong. Rec. H588-590 (daily ed. Jan. 23, 2017) (emphasis added).

¹⁴ *Id.* (emphasis added).

RESPONSE Act that ensures that multi-line telephones *commonly found in office buildings and hotels* are equipped with location accuracy technologies. This is essential for responders to locate a 911 caller *in a large building* as quickly as possible because lives are literally on the line and every second counts.”¹⁵ The proposed notification requirement also contemplates notification to a location “*at the facility where the system is installed,*”¹⁶ suggesting an intention that the rules should be limited to on-site MLTS use.

As noted above, the Commission should therefore expressly clarify that the notification and dispatchable location rules only apply to MLTS deployed at single locations that have 50 or more lines, where the MLTS owner controls the network.

III. ALLOCATION OF RESPONSIBILITY BETWEEN MANUFACTURERS, SELLERS, INSTALLERS, OWNERS, AND OPERATORS OF MLTS SHOULD BE CLEAR.

The FCC has correctly recognized that installers, managers and operators of MLTS play a critical role in successful 911 calling. In RingCentral’s experience, MLTS operators often demand robust and flexible solutions that maximize the safety of their users. Any rules should permit providers like RingCentral to continue to innovate to meet customer demand.¹⁷

MLTS owners and operators are in the best position to determine how to deploy and configure their MLTS systems. For example, as explained above, MLTS owners and operators are in the best position to select the location for the notification requirement. Manufacturers and sellers—and even installers—do not have insight into this information for enterprises.

¹⁵ 164 Cong. Rec. H1398-1414 (daily ed. Mar. 6, 2018) (statement of sponsor G. Walden, R) (emphasis added).

¹⁶ NPRM at App’x A (Proposed Rules), § 9.16(b)(2).

¹⁷ RingCentral ECS Comments at 5.

Because owners and operators play such a critical role in administering their MLTS, the Commission should ensure that the lines between manufacturers, installers and owners/operators are clearly drawn. For example, the NPRM defines a “person engaged in the business of installing an MLTS” to include a person who “configures the MLTS or performs other tasks involved in getting the system ready to operate.”¹⁸ But these functions are often part of providing cloud-based MLTS. An over-broad definition of installation would thus risk imposing duties (such as configuring notification) that should rest with the MLTS owner/operator as the entity best positioned to make deployment decisions for the enterprise.

The Commission should address this by making clear that manufacturers and sellers are not installers simply by virtue of providing systems; rather, manufacturers and sellers become installers *only* when their customers specifically retain them for installation by, for example, purchasing installation or other professional services. The Commission should also recognize that installers are acting at the direction of owners and operators, and should adjust the responsibility for implementation of those directions accordingly.

IV. THE FCC SHOULD ENSURE THAT THE LOCATION REQUIREMENTS FOR INTERCONNECTED VOIP ARE TECHNICALLY FEASIBLE AND THAT IMPLEMENTATION TIMEFRAMES ARE ACHIEVABLE.

RingCentral welcomes the Commission’s focus on dispatchable location and improvements to the Registered Location requirements to enhance emergency response to 911 calls.¹⁹ Through robust solutions that leverage customer-provided Registered Location,

¹⁸ NPRM at ¶ 35.

¹⁹ NPRM at ¶ 51.

interconnected VoIP providers have long enabled public safety to send help to exactly the right location.²⁰

RingCentral appreciates that the Commission has wisely chosen to permit, but not require, automatic location detection. This type of approach best fosters continued innovation: while location detection technology continues to improve, it remains imprecise and may not be capable of providing a caller's exact location. At this time, interconnected VoIP service providers are generally unable to verify location information in real time. RingCentral therefore applauds the Commission's proposal to provide an option for interconnected VoIP providers to comply with *either* the Registered Location requirements of the proposed rule at subparagraph (4)(i) *or* the dispatchable location requirement of subparagraph (4)(ii).²¹

The Commission's proposed Registered Location update requirements contained within subparagraph (4)(i), however, raise concerns based on limitations of technology in some circumstances. The proposed rules for Registered Location include a requirement that for VoIP service "capable of being used from more than one location," service providers must be able to "identify whether the service is being used from a different location" to either "prompt the customer to provide a new Registered Location" or "update the Registered Location without requiring additional action by the customer."²² While RingCentral is constantly working to improve the functionality of prompting users to update their Registered Location, there remain

²⁰ RingCentral ECS Comments at 4 ("For users that frequently relocate, for example using a soft client on a laptop, RingCentral is likewise continually evaluating and improving its solution. Because the interconnected VoIP 911 rules provide for 911 routing based on customer-provided registered location, RingCentral has implemented numerous safeguards to ensure that its users provide the most accurate and up-to-date registered location information possible.").

²¹ NPRM at App'x A (Proposed Rules), §§ 9.11(b)(4)(i) and (ii).

²² *Id.* at App'x A (Proposed Rules), § 9.11(b)(4)(i)(C).

many challenges inherent in location detection necessary to “identify whether the service is being used from a different location than the Registered Location” or to “obtain the customer’s dispatchable location” without requiring customer action.

Compliance with these proposed rules is achievable in some situations, but not in others. For example, where a user is using an installed application on a computer, the provider can in most cases identify when the user has moved locations, and either prompt the user to update their Registered Location or automatically update to a previously entered address. But for many other use cases and applications, such as browser-based applications and VPNs, the provider may not be able to detect a user’s location, much less identify that the service is being used “from a different location than the Registered Location.”

Providers like RingCentral have developed innovative browser-based applications that can provide a complete alternative to a desktop phone, including the ability to make and receive calls to and from the PSTN. But these web-based applications do not allow a VoIP provider to detect location without a user opting in to location detection. Absent user consent—which must be obtained every time a user opens the browser—a browser-based application cannot automatically detect that a user has changed location. Indeed, this is one of the benefits of web-based solutions: the internet is designed to allow programs and applications to run on user devices *without* looking beyond the browser to detect location, Wi-Fi use, or other user information. This design feature protects user privacy and protects the device from malicious website activity. But this same design feature limits the ability of an interconnected VoIP provider to detect when a user has changed location absent user consent. Similarly, users that log into enterprise computers remotely using a VPN or similar solutions may appear to be in a

different location than their actual location, and it would be impossible for the provider to detect that difference.

The Commission should be cautious about implementing mandates where technology cannot meet the requirements, not only because it can potentially stifle innovation, but also because it can create unrealistic user expectations. There is potential danger in users expecting that interconnected VoIP can automatically provide a user's precise location when that technology is not available or consistently reliable—and may not even be technically feasible. The Commission should also create reasonable timeframes for providers to develop solutions to any location requirements that the Commission does choose to adopt. Public safety will not be maximized if technology is not available to meet regulatory mandates. As RingCentral has previously explained, “regulatory requirements and user expectations must not get ahead of technology.”²³ Solutions should depend on proven, established technology.²⁴ The Commission should therefore allow sufficient time for communications platforms to address the logistical challenges to location detection described above.

The proposed timeframe of February 16, 2020 is not realistic for implementation of the Registered Location update requirement in the interconnected VoIP rules; this is in part because developing the requisite capabilities, even where feasible, will require significant engineering and development time. The FCC should allow for at least 18 to 24 months to develop solutions to meet any new location requirements, as that is the minimum time needed to allow providers to solve for the complex challenges of certain location requirements.

²³ RingCentral ECS Comments at 6.

²⁴ *Id.*

V. CONCLUSION

RingCentral appreciates the Commission's efforts to improve 911 calling and to advance the Congressional objectives of Kari's Law and Section 506 of RAY BAUM's Act. As the Commission implements these statutes, RingCentral urges the Commission to adopt rules that account for the realities of today's technology, and to avoid imposing limitations that will stifle providers' ability to develop innovative solutions for 911 calling.

Respectfully submitted,

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