

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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| 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 |
| |) | |

To: The Commission

**COMMENTS OF PANASONIC CORPORATION
OF NORTH AMERICA**

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EXECUTIVE SUMMARY

Panasonic is committed to ensuring that users of its MLTS offerings can efficiently and effectively access 911 during emergencies. Therefore, Panasonic supports the Commission's goals in this proceeding. As the Commission moves forward with implementing the mandatory portions of Kari's Law and undertaking the analysis required by RAY BAUM'S Act, the agency must appreciate the variation in the types of systems deployed and the number of stakeholders involved to enable 911 for MLTS. The Commission must recognize the complexity of this ecosystem as it contemplates potential regulations, particularly with respect to providing a dispatchable location with MLTS 911 calls. The Commission should focus its immediate efforts on the implementation of Kari's Law's direct dialing and notification mandates, while conducting a thorough and thoughtful consideration into whether, when, and how to impose dispatchable location requirements.

Any MLTS 911 regulations adopted, particularly small- and medium-sized businesses, must (1) be technically feasible, (2) take into consideration the higher-costs and burdens for small businesses to meet overly prescriptive requirements, even where technically possible; (3) enable access to 911 while providing sufficient flexibility to businesses to meet their communications needs without undue disruption; and (4) ensure rules reflect consumer expectations.

In implementing the compulsory direct dial provisions of Kari's Law, the Commission's interpretation of statutory terms, such as "MLTS," "configured," and "pre-configured" must accord with technological reality. The Commission should also ensure sufficient flexibility and optionality for MLTS managers to implement Kari's Law's notification requirement. The Commission should provide flexibility for a given enterprise to determine the content, form, and destination of the notification, consistent with Congressional intent.

Panasonic appreciates the Commission's desire to ensure a dispatchable location is provided with a 911 call regardless of the type of platform over which a call is made. However, given the complexity and wide variance in the types of MLTS offerings in the marketplace, it is unrealistic to impose a single dispatchable location requirement that can be met by all MLTS platforms. Further, given the very real costs (in dollars and labor) to implement and maintain accurate location information and to enable dynamic location updates for mobile platforms, the Commission should limit any initial MLTS 911 location requirements to those systems on which a user is reasonably likely to expect to be able to dial 911 and receive emergency assistance. Specifically, at this time, dispatchable location requirements should be limited to those systems used on-premises and the granularity of required location information should be limited to a street address of the building. Dispatchable location requirements should not be extended to mobile MLTS extensions or softphone applications at this time.

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**COMMENTS OF PANASONIC CORPORATION
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Panasonic Corporation of North America¹ (“Panasonic”) respectfully submits these comments in response to the Federal Communications Commission’s (“Commission’s”) *Notice of Proposed Rulemaking* (“NPRM”)² in the above-captioned dockets.

I. INTRODUCTION

2018 marks the 50th anniversary of the first 911 call.³ Since that first call was placed, the 911 system and the regulatory construct governing access to 911 has evolved significantly to adapt to changing technologies and consumer expectations. While still a work in progress, Americans have come to rely on a system where the push of three buttons – “9-1-1” – can be

¹ Panasonic Corporation of North America is a leading technology partner and integrator to businesses, government agencies and consumers across the region. The company is the principal North American subsidiary of Osaka, Japan-based Panasonic Corporation and leverages its strengths in Immersive Entertainment, Sustainable Energy, Integrated Supply Chains and Mobility Solutions to enable its business-to-business customers. For more about Panasonic, visit: <https://na.panasonic.com/us/>

² *Implementing Kari’s Law and Section 506 of RAY BAUM’S Act; Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems*, Notice of Proposed Rulemaking, FCC 18-132 (rel. Sept. 26, 2018) (“NPRM”).

³ *50th Anniversary of 9-1-1 Celebration*, NEXT-GEN 911 INST., <https://www.ng911-institute.org/911-50th-anniversary> (last visited Dec. 6, 2018).

relied on to summon assistance during an emergency, regardless of the type of phone being used. Unfortunately, while a rare occurrence, in some instances consumers have found themselves unable to reach emergency response agencies when dialing 911, sometimes with tragic consequences. When limitations in access to 911 are identified it is the responsibility of all stakeholders – industry, the public safety community, and government – to work together to improve the system. The inability of callers to directly dial 911 via a multi-line telephone system(s) (“MLTS”) and for such systems to provide a notification that a 911 call has been made, is one such limitation that must be addressed. Panasonic therefore applauds the efforts of those who have raised this issue, to Congress for responding, and to the Commission for its efforts give effect to Kari’s Law⁴ and to RAY BAUM’S Act.⁵

Based out of Newark, New Jersey, Panasonic North America is one of the world’s leading technology partners for businesses, governments, and consumers. Panasonic’s innovations are helping to transform the way Americans experience the world around them, the way they move through it, and the way they connect to each other. Partnering globally with over 39 sales companies and 152 distributors, Panasonic has provided business communications platforms for over thirty years. The company provides a comprehensive lineup of unified communications products and solutions, including business telephone systems, a suite of digital and analog phones, and unified communications applications that allow users to seamlessly

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”).

⁵ 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 (2018) (codified at 47 U.S.C. § 615 note) (“RAY BAUM’S Act”).

connect to anyone, anywhere, across multiple devices.⁶ Panasonic is a global leader in the provision of corded Private Branch Exchange (“PBX”) and Internet Protocol (“IP”) PBX services to small- and medium-sized businesses (*i.e.*, those with 250 extensions or less). Panasonic is also the global leader in Digital Enhanced Cordless Telecommunications (“DECT”) wireless solutions, allowing users to stay in contact while on the move within a business location.

Panasonic is both a manufacturer of the telephony components, such as IP telephone handsets, used by other entities to create and operate MLTS, and is also itself the manufacturer of complete MLTS solutions. The company is fully committed to ensuring that (1) users of its MLTS offerings can efficiently and effectively access 911 during emergencies, and (2) Panasonic-created components used as part of a MLTS enable the same even when Panasonic itself is not the installer/manager/operator of a MLTS.

The *NPRM* takes important steps to implement the clear directive in Kari’s Law to enable users of MLTS to directly dial 911 and the provision of an on-site notification that a 911 call has been made. The *NPRM* also initiates important inquiries pursuant to RAY BAUM’S Act regarding the possibility of providing “dispatchable location” with MLTS 911 calls, while simultaneously recognizing the technical challenges and costs associated with doing so. There is no debate that access to 911 via MLTS is an important issue. It is also undebatable that the variation in the types of systems deployed and the number of stakeholders involved to enable 911 for MLTS far exceeds the complexity of other services for which the Commission has

⁶ See, *e.g.*, Panasonic, *Unified Communications*, <https://na.panasonic.com/us/office-products-unified-communications/unified-communications> (last visited Dec. 6, 2018); Panasonic, *Applications – Unified Communications Solutions*, <https://info.panasonic.com/unified-communications-business-phone-applications.html> (last visited Dec. 6, 2018).

established 911 rules. The Commission must recognize this complexity as it contemplates potential regulations, particularly with respect to providing a dispatchable location with MLTS 911 calls. As the Commission acknowledges, there is no one-size-fits-all technological solution for the provisioning and delivery of dispatchable locations with all MLTS 911 calls.⁷

The Commission should use the *NPRM* as an opportunity to focus its immediate efforts on the implementation of Kari's Law's direct dialing and notification mandates, while conducting a thorough and thoughtful consideration (consistent with RAY BAUM'S Act) into whether, when, and how to impose dispatchable location requirements. Insofar as the Commission *does* focus at this time on requiring a dispatchable location, the agency should concentrate first on a baseline rule for hard-wired fixed telephony endpoints assigned a physical location. Dispatchable location requirements should not be extended to mobile MLTS extensions or software phone ("softphone") applications at this time given the technical challenges in locating such devices, ongoing but incomplete standards work to address the ability to automatically locate such devices, and the low likelihood that mobile MLTS extensions or softphone applications would be used to dial 911.

Any MLTS 911 regulations adopted, particularly small- and medium-sized businesses ("SMB's"), must (1) be technically feasible, (2) take into consideration the higher-costs and burdens for SMB's to meet overly prescriptive requirements, even where technically possible; (3) enable access to 911 while providing sufficient flexibility to businesses to meet their communications needs without undue disruption; and (4) ensure rules reflect consumer expectations (an employee's expectation of access to 911 via a hard-wired phone at a desk is not the same as access via a laptop in a local coffee shop).

⁷ See, e.g., *NPRM* ¶¶ 60-63.

II. IMPLEMENTATION OF KARI'S LAW MUST REFLECT TECHNICAL REALITY, AND TAKE INTO CONSIDERATION THE NEED FOR ENTERPRISE FLEXIBILITY.

Consistent with the requirements of Kari's Law, Panasonic supports the Commission's efforts to require that (1) MLTS be pre-configured for direct dialing of 911,⁸ and (2) MLTS installers, operators, and managers configure MLTS to enable direct 911 dialing.⁹ Indeed, even prior to the *NPRM*'s promulgation, all Panasonic's MLTS equipment is already pre-configured to support direct dialing of 911.

Also consistent with Kari's Law, Panasonic supports the Commission's proposal to require a notification with the 911 call and its tentative conclusion to allow flexibility to businesses to determine how such a notification should be made. However, Panasonic cautions the Commission on its suggestion that a call-back number and dispatchable location should be required as part of a notification with *all* 911 calls. Where an enterprise is able to provide a callback number and location with the call when sent to the appropriate Public Safety Answering Point ("PSAP"), then it is reasonable for the Commission to consider a requirement for the same information to be included with a notification. However, as discussed below, there are many reasons that providing a callback number and/or location with a 911 call can be challenging.

As the Commission moves to make the important goals of Kari's Law a reality, it will be critical for the Commission's implementing rules and interpretations to square with technical reality, and to ensure enterprise flexibility.

⁸ 47 U.S.C. § 623(a).

⁹ *Id.* § 623(b).

A. Interpretations of, and Rules Based On, Key Definitions Must Reasonably Account for Technological Realities and End-User Expectations.

1. The Meaning of “MLTS.”

As described in the *NPRM*, both Kari’s Law and the RAY BAUM’S Act rely on Section 1471’s definition of “MLTS,” which describes a “multi-line telephone system” 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.¹⁰

Panasonic generally supports the Commission’s efforts to interpret this definition of MLTS, which are largely consistent with the statutory definition.¹¹ The proposed definition of MLTS mirrors the statutory definition. However, the Commission proposes to broadly interpret the statutory definition of MLTS as “includ[ing] 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.” Based on the rapidly evolving enterprise communications marketplace and the changing needs of an increasingly mobile workforce, such an interpretation of the term is logical. However, it is not clear from the text of the statute or the legislative history of Kari’s Law or RAY BAUM’S Act, that Congress envisioned such a broad interpretation of the term which includes no reference to “cloud-based IP technology and over-the-top applications.” Given its intention to capture such a wide

¹⁰ *NPRM* ¶ 28 (citing 47 U.S.C. § 1471(2), as cross-referenced in *id.* §§ 615, 623) (emphasis added)).

¹¹ *See, e.g., NPRM* ¶ 29.

universe of capabilities, it is critical for Commission to appreciate (1) the widely varying ability of systems to produce an accurate location or callback number to a specific device, and for such information to be provided with a 911 call, and (2) different end-user expectations with certain types of services.

The *NPRM* asks whether there are other ways in which it can clarify the definition of MLTS.¹² The answer to this question is affirmatively “yes.” The Commission should confirm that, in keeping with the textual reading of the statute, Congress’s use of the language “*system comprised of*” various parts (*e.g.*, common control units, telephone sets, control software and hardware and adjunct systems)¹³ dictates as a matter of logic that such individual parts are, in isolation, not MLTS themselves. To hold otherwise would be to ignore the plain meaning of the word “comprised,” effectively reading it out of the statute. An object being defined as consisting of certain sub-parts *per se* means those sub-parts are not themselves the referent; a car is “comprised of” four wheels, doors, an engine, seat belts and chairs, etc.—but neither a steering wheel by itself, nor a hubcap by itself, is a car.

Panasonic may be uniquely situated in the sense that while the company offers a full-blown MLTS and is in that case an MLTS manufacturer, it also sells IP phones to other parties who bundle the Panasonic phones with other components that make up a full MLTS. In that case, by definition Panasonic is not providing an MLTS; it is merely providing a subcomponent of a full multiline telephone *system*. With this ecosystem-wide perspective in mind, Panasonic urges the Commission to affirm sellers of individual MLTS components are not themselves subject to FCC rules.

¹² *Id.* ¶ 30.

¹³ 47 U.S.C. § 1471(2).

2. *The Meaning of “Pre-Configured” and “Configured.”*

Kari’s Law in part prohibits “the manufacture, importation, sale, [or] lease” of an MLTS after February 16, 2020, unless such system is “pre-configured such that, when properly installed ... a user may directly initiate a call to 911” without dialing any additional digit, code, or prefix.¹⁴ Further, installers, managers or operators of MLTS must “configure” systems such that any person may directly initiate a call to 911 without dialing a prefix or any numbers other than 911,¹⁵ and also enable a notification that 911 has been called.¹⁶ Because the terms “pre-configured” and “configured” are not defined in the statute, the *NPRM* seeks to clarify their meaning.

Pre-Configured. The *NPRM* proposes to define the term “pre-configured” to mean that an MLTS will “come[] equipped with a default configuration or setting that enables users to dial 911 directly ... so long as the system is installed and operated properly.”¹⁷ The Commission describes a “default configuration” as “the preexisting, ‘out of the box’ settings of a user-configurable software application, computer program, or device.”¹⁸

The Commission should make clear that while a manufacturer can create a default configuration that enables a user to dial 911 directly if properly installed,” the “out of the box” default configuration as shipped by the manufacturer still requires proper installation in order for the phone to direct dial 911. A manufacturer can create the capability for a phone to direct dial

¹⁴ *Id.* § 623(a).

¹⁵ *Id.* § 623(b) (direct dial configuration).

¹⁶ *Id.* § 623(c) (notification configuration).

¹⁷ *NPRM* ¶ 31 (draft Section 9.3).

¹⁸ *Id.* n.59.

911, but it requires the installer of the system to make it work. Improper installation of a system that could, but does not, enable direct access to 911 cannot be considered the fault of a manufacturer for not “pre-configuring” the phone to direct dial 911. Whether or not, for instance, an individual phone may dial 911 directly upon immediate hook-up to a network is beyond the ability of a manufacturer to ensure, given a given phone’s back-end technical dependency upon the network itself, a dependency that is an architectural inevitability. It is a reality of network engineering that some systems *per se* require further steps by the installer (likely as directed by the manager of the MLTS) before any dial-out—including a dial-out to 911—is possible.¹⁹ The definition or interpretation of the term “pre-configured” should reflect this reality, and not address functions like notification.

Configured. Separately, the *NPRM* proposes to define the term “configured” to mean the “settings or configurations for a particular MLTS installation have been implemented so that the MLTS is fully capable when installed of dialing 911 directly and providing notification as required under the statute and rules.”²⁰ The definition makes clear that it does not preclude the inclusion of additional dialing patterns to reach 911. However, “if the system is configured with these additional dialing patterns, they must be in addition to the default direct dialing pattern.”²¹ MLTS systems can be customized with a variety of dialing patterns. Panasonic supports the Commission’s definition of “configured” and its proposal to allow flexibility to enterprises to configure alternate ways of dialing 911, in addition to the default direct dialing pattern.

¹⁹ See *e.g.*, Comments of Cisco Systems, Inc., PS Docket No. 17-239, at 12 (filed Nov. 15, 2017) (describing the myriad steps a MLTS installer must take before calls to 911 can be placed to a PSAP via the PSTN).

²⁰ *NPRM* ¶ 32 (draft Section 9.3).

²¹ *Id.*

3. *Other Definitional Issues.*

Panasonic agrees that the meaning of the term “person engaged in the business of manufacturing, importing, selling, or leasing an MLTS” is self-evident.²² However, as described above, an entity cannot be considered to be engaged in the business of manufacturing or selling an MLTS if it is merely manufacturing or selling a component of a full system.²³ Additionally, the definition of a “person engaged in the business of installing an MLTS” should be limited to initial installation and configuration of the system or substantial “improvement,” lest over-long potential liability risk the exit of skilled installers from the market.²⁴ The definition of a person engaged in the business managing an MLTS should be extended to the enterprise owner who manages or operates the MLTS, as well as those who contract with outside service providers to do so.²⁵ Finally, a small business which uses a building MLTS system, but does not exercise control over the system, should not be considered to be responsible for adherence to the well-designed mandates of Kari’s Law.²⁶

B. Providing Flexibility in Implementing Notification Requirements is Necessary to Ensure Adherence to Congressional Intent.

Panasonic also supports the Commission’s efforts to give effect to Congress’s requirement that MLTS installers, operators, and managers configure MLTS to provide a notification that a 911 call has been placed.²⁷ In adopting this rule as mandated by Kari’s Law,

²² *Id.* ¶ 34.

²³ *See supra* at p. 7.

²⁴ *NPRM* ¶ 35

²⁵ *Id.* ¶¶ 36-37.

²⁶ *Id.* ¶ 38.

²⁷ 47 U.S.C. § 623(c).

the Commission should emphasize flexibility for a given enterprise to determine the content, form, and destination of the notification. Businesses should be provided with the flexibility to customize notifications as they see fit given their understanding of the physical nature of their enterprise, the technical capabilities of their system, and their personnel that will be involved in assisting with an emergency response (including on-site private emergency response teams in some cases). Flexibility is particularly important for small businesses which are more likely to be able to assist emergency responders with locating a caller than a large enterprise. The Commission is right to seek to minimize the burden of notification requirements for small business and to allow alternate means of notification other than a call to a single point of contact (*e.g.*, in some circumstances an email or text message may be more effective).²⁸ Regardless of the content of the notification, discussed below, Panasonic agrees that notifications should be provided contemporaneous with the delivery of the 911 call to a PSAP.²⁹

Kari's Law also provides that the notification requirements of the statute apply only if the system can be configured to provide notification "without an improvement to the hardware or software of the system."³⁰ The Commission proposes to define the term "improvement to the hardware or software of the system" to include upgrades to the core systems of an MLTS, as well as substantial upgrades to the software and any software upgrades requiring a significant purchase.³¹ The definition of "improvement" should only include substantial upgrades of new core software or hardware upgrades, and not software updates for addressing bug fixes, security

²⁸ *NPRM* ¶¶ 26-27.

²⁹ *Id.* ¶ 23.

³⁰ 47 U.S.C. § 623(c).

³¹ *NPRM* ¶ 33.

vulnerabilities, or the addition of ancillary features. Similarly, maintenance or reconfiguration of the system to support new users or extensions should not be considered a substantial upgrade. The cost of the upgrade or update or the size of the enterprise should not be considered to be a factor; instead, the question must be whether the improvement is to the core functionality of the MLTS system. To hold otherwise on any of these points would be to disincentivize network optimization behaviors such as the sort of cybersecurity-ensuring patches any company can and must engage in, in 2018 and beyond.

Content of the notification. Providing a notification that a call has been placed and information associated with the call, including a call-back number and location information, is an important objective. Panasonic therefore supports the notification requirement, but also urges regulatory humility consistent with Congress' clear intent not to impose overly burdensome and costly requirements with such a rule.

The statutory mandate to provide a notification when a 911 call is placed is limited. The law merely requires that the system “provide a notification to a central location at the facility where the system is installed or to another person or organization regardless of the location, *if the system is able to be configured to provide the notification without an improvement to the hardware or software of the system.*”³² The legislative history of Kari’s Law makes clear that this requirement is intended to assist first responders in their emergency response by providing access and information that will help locate a caller but does not prescribe any specific information that must be included with the notification. Indeed, Congress explicitly stated that the law “allows the MLTS owner or operator some flexibility in determining the most

³² 47 U.S.C. § 623(c) (emphasis added); *see also NPRM* ¶ 20 (noting Kari’s Law “does not specify what information must be included in the notification.”).

appropriate contact, whether in the building or otherwise.”³³ And text and legislative history alike also make readily apparent that the requirement only applies if it is achievable without an improvement to the hardware or software of the system.³⁴ Finally, and importantly, the legislative history is clear that Kari’s Law “seeks to balance the need for an onsite notification with the goal of not placing an undue burden on MLTS owners or operators.”³⁵

Going further than the statute requires, the *NPRM* proposes that the notification “at a minimum” 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 PSAP with the call to 911.³⁶ With each of these three proposed data points, only one of which is required by statute, comes increasing complexity and cost for businesses. Contrary to the *NPRM*, neither Kari’s Law nor RAY BAUM’S Act requires a callback number. As a technical matter, a valid call-back number to a particular user/station may only be possible if a direct inward dial (“DID”) number is assigned. The Commission should allow enterprises with flexibility to determine the best method of providing a callback number for MLTS systems whose internal extensions are not

³³ H.R. REP. NO. 114-579 (2016) (a report sponsored by Rep. Upton from the House Committee on Energy and Commerce).

³⁴ *Id.* (“New Section 721(b) requires that any person who installs, operates, or manages a MLTS only do so if the system is configured such that a user may directly initiate a call to 9-1-1 without any additional digit or prefix. ... This subsection only applies to systems where the configuration is *achievable without an improvement to the hardware or software of the system*. The Committee intends this provision to include upgrades to the core systems of a MLTS, but not the addition of additional extensions or lines. The Committee also *intends this provision to apply to substantial upgrades to the software, particularly those requiring a significant purchase.*” (emphasis added)).

³⁵ *Id.*

³⁶ *NPRM* ¶ 22.

registered with a DID number—a practice especially common in small enterprises where DID number assignment is not cost-effective.

Further, while RAY BAUM’S Act directs the Commission to consider adopting rules requiring dispatchable location to be “conveyed with a 9-1-1 call”³⁷ (including MLTS 911 calls), it is far from clear that the law extends authority for the Commission to require location information to be provided as part of a notification. The RAY BAUM’S Act clearly provides the FCC with authority to *consider* conveying the dispatchable location of a MLTS “9-1-1 call” (defined as “a voice call that is placed ... *to a public safety answering point*”) when delivered to a PSAP.³⁸ It is less clear, however, that such language can be relied on to also require dispatchable location information be conveyed with a notification that a 911 call has been placed.

Given the clear objective of Congress to avoid placing counterproductive burdens on MLTS owners and/or operators, it is more likely that Congress did *not* envision the inclusion of the detailed information the FCC is proposing be provided with the notification. If the Commission does require a callback number or dispatchable location with a notification, the requirement should be for the enterprise to provide the same information that it is capable of conveying to a PSAP when the call is delivered, which in some instances may be limited and may not include a callback number or dispatchable location for the reasons discussed below. Any callback number or dispatchable location requirement at this time should be limited to extensions assigned a DID number, pending further technical developments.

³⁷ RAY BAUM’S Act at Subsection (a).

³⁸ *Id.* at Subsection (c)(1) (emphasis added).

C. Other Issues.

Compliance Date. Panasonic agrees with the Commission's proposed compliance date, given that it is consistent with the statute.³⁹ To minimize the burden on small business dealers, installers, and distributors, equipment manufactured prior to February 16, 2020 should not be required to be "pre-configured" to support direct 911 dialing.

Transitional Issues. MLTS systems have long life-cycles and are not frequently changed once installed. For small or medium-sized businesses, changing such systems is costly and may require rewiring of the building infrastructure. The Commission should work with industry associations, business chambers, and state and local governments to help educate enterprises and building owners to understand the need for enterprise migration or interim user education. The FCC should not impose specific employee notification requirements on MLTS installers, operators, and managers to notify system users of 911 capabilities and limitations, but should instead encourage voluntary, industry-led initiatives to do so.⁴⁰ States may also elect to use their authority to require businesses to include employee training on the use of MLTS, including requirements concerning access to 911 from different types of systems.

Enforcement. The enterprise owner which manages or contracts with an outside MLTS manager should bear primary responsibility for compliance with implementing Kari's Law.⁴¹ Manufacturers of MLTS should not be subject to enforcement for failure of a MLTS manager to comply with Commission rules unless the reason for the MLTS manager's inability to comply with rules is specifically related to the design of the MLTS manufacturer.

³⁹ *NPRM* ¶ 39.

⁴⁰ *Id.* ¶¶ 40-41.

⁴¹ *Id.* ¶ 44.

Complaint Mechanisms. Panasonic agrees that the Commission can rely on existing Commission complaint mechanisms to facilitate the filing of complaints for potential violations of Kari’s Law.⁴² The Commission should consider establishing an informal complaint resolution mechanism similar to that used for accessibility complaints under the 21st Century Communications and Video Accessibility Act or Section 255.⁴³ As the Commission has done for complaints concerning accessibility for certain types of equipment,⁴⁴ MLTS manufacturers, installers, operators, and managers should have an opportunity to resolve complaints informally before the Commission undertakes any enforcement action.

Equipment Authorization. Since equipment authorization would only apply to hardware and not to software-based solutions, modifying the Commission’s equipment authorization rules as they apply to MLTS equipment manufactured after February 16, 2020⁴⁵ would constitute an unequal and unnecessary burden. If the Commission *does* elect to pursue MLTS-specific equipment authorizations, a self-declaration of conformity should be the

⁴² *Id.* ¶ 45.

⁴³ Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260 as amended by Pub. L. No. 111-265, 124 Stat. 2751 as amended by 124 Stat. 2795 (2010); *see also* FCC, *Consumer Complaint Center – Learn More About Filing an Informal Accessibility Complaint*, <https://consumercomplaints.fcc.gov/hc/en-us/articles/204417770-Learn-More-About-Filing-an-Informal-Accessibility-Complaint> (last visited Dec. 6, 2018) (detailing, in consumer-accessible and user-friendly terms, the Commission’s processes and procedures for informal complaints – including Enforcement Bureau review and related standards, Defendant’s right to Answer and 20-day timetable, and Complainant’s 10-day optional reply to Defendant’s Answer).

⁴⁴ FCC, *Consumer Complaint Center – Take Action: Options for Filing an Accessibility Complaint*, <https://consumercomplaints.fcc.gov/hc/en-us/articles/202939874-Take-Action-Options-for-Filing-an-Accessibility-Complaint> (last visited Dec. 6, 2018).

⁴⁵ *NPRM* ¶ 46.

regulatory ceiling; such declarations should be limited to initial product functionality, and not to how a product is configured post sale.

III. DISPATCHABLE LOCATION REQUIREMENTS MUST BE TECHNICALLY FEASIBLE, NOT IMPOSE UNDUE COSTS AND BURDENS, AND REFLECT END-USER EXPECTATIONS.

Panasonic appreciates the Commission's desire to ensure a dispatchable location is provided with a 911 call regardless of the type of platform over which a call is made. However, given the complexity and wide variance in the types of MLTS offerings in the marketplace, it is unrealistic to impose a single dispatchable location requirement that can be met by all MLTS platforms. Further, given the very real costs (in dollars and labor) to implement and maintain accurate location information and to enable dynamic location updates for mobile platforms, the Commission should limit any initial MLTS 911 location requirements to those systems on which a user is reasonably likely to expect to be able to dial 911 and receive emergency assistance. Specifically, at this time, dispatchable location requirements should be limited to those systems used on premises and the granularity of required location information should be limited to a street address of the building.

A. Dispatchable Location, Unlike Direct Dialing and On-Site Notification, Is Not Mandated by Congress; The FCC Should Not Adopt Technologically Unfeasible or Unduly Burdensome Requirements.

The Commission must take into account technical feasibility in determining whether dispatchable location can be reliably provided in a given circumstance. The MLTS market is an innovative one, and is rapidly evolving to meet diverse needs. It would be difficult for the Commission to mandate detailed technological capabilities or standards for the MLTS market without impacting this innovation. Panasonic's catalog of MLTS offerings is illustrative of the scope of the market. Panasonic offers traditional PBX hardwired desktop business telephone systems, both analog and digital; IP-based unified communications applications that allow users

to seamlessly connect to anyone, anywhere, including across multiple devices (including android and iOS supported mobile devices) and portable laptop computers; IP mobile softphones; and DECT wireless solutions.

While many systems will technically be able to provide more granular location information than a street address, such as a floor number or even a floor quadrant, it is difficult and costly to implement and maintain the accuracy of such information with an increasingly mobile workforce. For some systems, such as Panasonic mobile DECT phones, the phone may be able to connect to multiple base stations that are located on different floors. The typical range of a DECT phone is around 300 meters or more. Thus, a caller may be on one floor, but connected to a base station that is one or two floors above or below the caller. That information might be useful to a PSAP and emergency responders, but it would not meet a floor or quadrant-level requirement. Similarly, for mobile IP phones or web-based applications accessed via a laptop or smartphone connected to a Wi-Fi access point, while a user may be on one floor, for a multitude of reasons it is possible that a user may be connected to an access point located on a different floor. Thus, even if an enterprise was able to map all of its access points and keep that data accurate (again, costly and labor intensive), it is still possible that the location of the access point will not precisely correlate to the caller's location. Such users may be able to manually enter their location if the enterprise contracts with a third party provider that enables such a capability at a cost, but requiring a manual location entry every time the device is used will likely result in pop-up overload, the effect of which will be users ignoring location update prompts.

When an employee uses an IP-capable client off-premises, dispatchable location should not be required at this time. These extensions are designed to enhance office productivity, not for emergency calling and there is no way to locate such callers today without requiring the

purchase of expensive third party services that require manual location entry. While the Commission notes the benefits associated with ensuring access to 911 from MLTS and provides statistics on the number of MLTS 911 calls,⁴⁶ no data is provided in the *NPRM* concerning the number of MLTS 911 calls that are not made from hardwired, fixed-location phones. Panasonic is unaware of a source of such data, but it is likely that 911 calls are very rarely made using Wi-Fi-only softphones or web-based applications on laptops or tablets off-premises. Given the prevalence of mobile devices in the United States today, it is far more likely that 911 calls will be placed on an employee's cell phone.⁴⁷

Congress stipulated that “Not later than 18 months after the date of the enactment of [RAY BAUM’S] Act, the Commission shall *conclude a proceeding 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].”⁴⁸ Thus, the FCC has flexibility to consider whether and how to apply a dispatchable location requirement for MLTS. The agency should do so in a way that minimizes economic burdens and maximizes the benefits to public safety by ensuring affected entities are able to comply. In recognition of the issues highlighted above, the Commission should limit any dispatchable location requirement at this

⁴⁶ See, e.g., *id.* ¶¶ 48-50 (subheading “Comparison of Benefits and Costs”).

⁴⁷ National 911 Program, *2017 National 911 Progress Report*, at 2 (Nov. 2017), <https://www.911.gov/pdf/National-911-Program-Profile-Database-Progress-Report-2017.pdf> (“The Majority of 911 Calls Are Increasingly Received from Cellular Phones. ... [T]he majority of 911 calls are from cellular phones. ... 2016 data collected for the 2017 report shows that about 80 percent of consumers are using cellular phones to make 911 calls while about 16 percent are using wireline phones. ... Multi-Line Telephone Systems (MLTS) *has decreased from 2015 data.*” (emphasis added)); see also, e.g., Nat’l Emergency Numbering Ass’n, *9-1-1 Statistics*, <https://www.nena.org/page/911Statistics> (last visited Dec. 6, 2018) (describing how in many areas across the U.S. 80% or more of 911 calls are made from mobile devices)..

⁴⁸ RAY BAUM’S Act at Subsection (a) (emphasis added).

time on a baseline rule for hard-wired fixed telephony endpoints assigned to a physical on-premises location. Further, such a requirement at this time should be limited to extensions assigned a DID number, pending further technical developments. Dispatchable location requirements should not be extended to mobile MLTS extensions or softphone applications at this time given the technical challenges in locating such devices, ongoing but incomplete standards work to address the issues, and the very low likelihood that such systems would be used to dial 911. The NPRM suggests that the Commission “expect[s] that street address would serve as a dispatchable location for the smallest enterprises.”⁴⁹ More broadly, the *NPRM* states that the Commission “believe[s] MLTS installers, managers, and operators will be able to identify situations in which street address is sufficient for first responders to quickly and accurately find the calling party.”⁵⁰ Panasonic agrees, and supports a street address requirement, when the caller is using a fixed-location on-premises MLTS.

As a technical matter, it *is* feasible for 911 calls from an endpoint assigned a DID number to convey a dispatchable location; each DID number can be assigned with a dispatchable location in the telephony carrier’s database. However, endpoints that are assigned only an internal extension number are not currently *capable* of conveying all the elements of the FCC’s proposed definition of dispatchable location.⁵¹ Many small businesses use internal extensions as cost-saving mechanisms; these do not enable DID numbers to be assigned. In the end, the Commission should not create a *de facto* mandate for the purchase of DID numbers. Congress did not mandate the imposition of such an ecosystem-shifting burden, and in fact gave the

⁴⁹ *NPRM* ¶ 58.

⁵⁰ *Id.*

⁵¹ *Id.* ¶ 44 (draft Section 9.3).

Commission the authority to avoid such a ground shift. If the agency *does* impose such a regulatory burden, it should at minimum provide for a small business exemption for entities with a small floor space (*e.g.*, 7,000 square feet or less). The Commission should allow such small businesses flexibility to define, as they think most appropriate, the dispatchable location for emergency responders.

Finally, while the use of X/Y/Z coordinates for dispatchable location can and should be explored by the Commission, such solutions are dependent on enterprises for the provision of the location for requisite beacons to triangulate position. This information is not readily available today for DECT cordless phones or access points not owned by a given enterprise and, as discussed above, it is costly to map and maintain the location of access points for an enterprise's individual use (and even when mapped, any location beyond street address may not be accurate when relied on by certain wireless systems). This includes the National Emergency Address Database ("NEAD"), a database of Wi-Fi and Bluetooth access points mapped to street addresses to improve location information for indoor mobile 911 calls. DECT Cordless phones do not utilize Wi-Fi or Bluetooth technologies, and DECT access points are not included in the NEAD Database at this time. At this time the NEAD is controlled by and accessible only to wireless carriers.

Ultimately, the Commission is right to use the *NPRM* to tee up the issue of dispatchable location requirements, as contemplated by RAY BAUM'S Act. But insofar as Congress charges the agency to "consider" the feasibility of doing so before adopting new rules, the Commission should view the *NPRM* as a jump-off point for eventual dispatchable location mandates, but it would be premature to adopt infeasible or unrealistic location mandates at this time.

B. Compliance Dates.

If the Commission *does* adopt limited dispatchable location requirements, compliance dates do not need to be consistent with the February 2020 Kari's Law compliance date for direct dialing and notification as proposed in the *NPRM*.⁵² As with the direct dialing and notification requirements in Kari's Law, any dispatchable location requirements should only apply to systems manufactured after the compliance date—and the Commission should provide manufacturers with a flexible approach to meeting dispatchable location requirements. As noted *supra*, a dispatchable location can be provided where the fixed endpoint is assigned a DID number and registered with the telephony carrier. IP-based MLTS clients that are assigned a DID number can also be registered with a fixed location, but current MLTS systems do not support validation of the location if the endpoint is moved to another location. This capability may be met by enterprise MLTS managers and operators through the use of additional services, but this may not be cost-effective for small businesses or easily achievable for legacy MLTS installations. The Commission should extend the compliance date for 3-5 years if this capability is deemed necessary for *all* MLTS systems.

IV. CONCLUSION.

For the reasons described above, the Commission should focus its immediate efforts on the implementation of Kari's Law's direct dialing and notification mandates, while conducting a thorough and thoughtful consideration into whether, when, and how to impose dispatchable location requirements. If the Commission does adopt a dispatchable location requirement at this time, it should concentrate first on a baseline rule for hard-wired fixed telephony endpoints assigned a physical location. Dispatchable location requirements should not be extended to

⁵² *Id.* ¶ 87.

mobile MLTS extensions or softphone applications at this time given the technical challenges in locating such devices, ongoing but incomplete standards work to address the ability to automatically locate such devices, and the very low likelihood that such systems would be used to dial 911.

With regard to Kari's Law, the enterprise owner which manages or contracts with an outside MLTS manager should bear primary responsibility for compliance with implementing Kari's Law. Any callback number or dispatchable location requirement at this time should be limited to extensions assigned a DID number, pending further technical developments.

Respectfully submitted,

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