

While this informational guidance has been developed to assist in relaying general information and increase understanding, the reader is advised that the FCC is the definitive and official authority on compliance and requirements.

MULTI-LINE TELEPHONE SYSTEMS AND 911 WHAT THE NEW RULES MEAN TO YOU

This document is designed to help you understand and comply with the laws and rules related to Kari's Law and RAY BAUM'S Act. The tabs at the bottom of this document include background information, rules and regulations, and obligations to fulfill along with instructions to follow or actions to take based on the role you play in 911 service delivery, or provision of the technology and equipment used in the 911 call process.

Information in this document is taken from Federal Communications Commission (FCC) resources; only minor modification in text for readability, understanding, and organization has been made. References to FCC documents are included at the bottom of each tab or are included in the reference section.

WHO IS AFFECTED BY KARI'S LAW AND THE RAY BAUMS ACT?

Kari's Law and RAY BAUM'S Act impact service providers, system manufacturers, state and local 911 authorities, emergency communications centers (ECCs)/public safety answering Points (PSAPs), and owner/operators of multi-line telephone systems (MLTSs).

Both laws, as implemented by the FCC, impact any company providing MLTS service and enterprises of any size using an MLTS, such as:

- · Companies with offices in multiple locations
- · Campuses including K-12, universities, and colleges
- Hospitals
- Hotels
- Retail facilities
- Financial institutions

MLTSs serve millions of employees, residents, and guests of businesses and educational facilities, including corporate business parks, hotels, college campuses, and planned community developments. These systems can support anywhere from ten to thousands of individuals (stations) or telephone numbers.

MLTSs include a widely embedded base of legacy private branch exchange (PBX), central office exchange service (Centrex), and key telephone systems (KTSs); Internet Protocol (IP)-based systems; and hybrid systems. Emergency calls from MLTS stations generally only provide a PSAP with a telephone or circuit number of the system's outgoing trunk, and not the emergency caller's individual location. In some cases, the MLTS station that placed the call will not have its own telephone number. As a result, PSAPs often find they are unable to locate the caller using the MLTS station from which the call originated. (FCC PS Docket No. 18-261, Report and Order, pg. 3.) The FCC's rules ensure that when a 911 call is placed on an MLTS, the system must be configured so that a notification is sent to a central location (e.g., front desk or security office) where someone is likely to see or hear it. The notification is intended to help signal someone that emergency response is coming so that they may prepare for responders by checking on the victim, opening a gate, or unlocking a door, etc.

RAY BAUM'S Act applies to the following 911-capable services: MLTS, fixed telephony, interconnected Voice over Internet Protocol (VoIP), internet-based Telecommunications Relay Services (TRS), and mobile text.



Kari's Law amends the original Telecommunications Act of 1934 as well as its 1996 overhaul. The law and FCC rules to enact both Kari's Law and the RAY BAUM'S Act mandate that Enhanced 911 (E911) accessibility and notification be part of every aspect of a telephone system. Kari's Law ensures that every person can easily call for help and be more easily located by emergency services.

Kari's Law was created after Kari Hunt was stabbed 21 times by her estranged husband on December 1, 2013, in a Texas motel bathroom while her three children were on the other side of the door. Her daughter tried four times unsuccessfully to dial 911, unaware that the hotel telephone system required dialing an additional access digit, "9," to reach an outside line.

After public outcries over Hunt's death, and the tireless efforts of Hunt's father, Congress took action and enacted Kari's Law in 2018. Soon after, the FCC began its notice of the proposed rulemaking process.

Manufacturers and vendors of MLTSs must pre-configure systems to support direct dialing of 911 without having to dial any prefix or access code. MLTS installers, managers, and operators not only must ensure that the system supports 911 direct dialing, but must also convey notification that a 911 call has been made.

When a 911 call is placed on an MLTS, the system must be configured to notify a central location on-site or off-site where someone is likely to see or hear the notification. Examples of notification include conspicuous on-screen messages with audible alarms for security desk computers using a client application, text messages for smartphones, and email for administrators. Notification shall include, at a minimum, the following information:

- The fact that a 911 call has been made
- A valid callback number

• The information about the caller's location that the MLTS conveys to the PSAP with the caller to 911; provided, however, that the notification does not have to include a callback number or location information if it is technically infeasible to provide this information. (47 CFR § 9.3.)

Kari's Law Act of 2017

RAY BAUM'S ACT

Named in honor of Ray Baum, the RAY BAUM'S Act is also an acronym that stands for Repack Airwaves Yielding Better Access for Users of Modern Services. While the Act in its entirety includes many different communications-related initiatives, Section 506 of the Act is particularly focused on 911 emergency services for enterprises. The FCC recently adopted regulations aimed at ensuring that the advanced communications tools used in an enterprise environment continue to support critical end users' emergency response needs when and where they are necessary. Signed into law in 2018, RAY BAUM'S Act emphasizes the importance of sharing precise location information when calling 911, which is invaluable to first responders in locating callers and can dramatically increase the potential for better emergency outcomes.

Section 506 of the RAY BAUM'S Act requires that the FCC consider adopting rules to ensure "dispatchable location" information is conveyed with 911 calls, regardless of the technology used, so that PSAPs will receive the caller's location automatically and can dispatch responders quickly and accurately locate the caller. Dispatchable location information includes the street address of the caller and additional information, such as a room or floor number, or similar information necessary to adequately identify the location of the calling party as quickly as possible.



COMPLIANCE

Kari's Law compliance date (MLTS direct dialing and notification) and exemption for legacy MLTS. Kari's Law and FCC rules are forward-looking and do not apply with respect to any MLTS that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed on or before February 16, 2020.

47 CFR § 9.17(b)

MLTS direct dialing rules are effective as of February 16, 2020.

MLTS disptatchable location rules are subject to compliance deadlines of January 6, 2021, and January 6, 2022, depending on the device from which the MLTS 911 call originates.

NEED MORE INFORMATION?

47 CFR Part 9, Subpart F - Multi-Line Telephone Systems

Multi-line Telephone System Requirements

National 911 Program

COMPLAINTS

Consumers

Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points

PSAPs and other public safety entities may request support from the Public Safety and Homeland Security Bureau and notify the Bureau of problems or issues affecting the provision of emergency services through the Public Safety Support Center.

Public Safety Support Center

NOTES

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HOW TO USE THIS DOCUMENT

This document is designed to help you understand and comply with the laws and rules related to Kari's Law and RAY BAUM'S Act. The tabs at the bottom of this document include background information, rules and regulations, and obligations to fulfill along with instructions to follow or actions to take based on the role you play in 911.

WHAT IS INCLUDED?

Each tab in this document is addressed to a particular community of interest as it relates to Kari's Law and RAY BAUM'S Act. Each tab presents information as a general overview of how the law and rules affect the community of interest, what that community needs to be aware of, a summary of requirements, application of the rules, compliance regulations, and timelines. In addition, each tab includes additional information or links to other resources to consult to gain more information.

The Checklist that can be found in each entity tab includes a checkable box that will turn green once it is completed and the checkbox is marked. This document can be worked on and resaved so that you can track progress on meeting compliance requirements.

TERMS

Terms and acronyms used in this document as well as in the resources referenced can be found in this tab.

REFERENCES

A list of references used in the research for this document is included in this tab.

NOTES

At the bottom of each tab, additional notes or pertinent information will be include that can be useful.

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DISPATCHABLE LOCATION

Dispatchable location compliance dates (MLTS dipatchable location). The FCC's dispatchable location rules for MLTSs apply to all MLTSs that are manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020. While the dispatchable location rules apply to the same entities subject to Kari's Law, the FCC established separate deadlines for MLTSs to come into compliance with the dispatchable location rules.

On August 1, 2019, the FCC adopted rules under Section 506 of RAY BAUM'S Act to ensure that "dispatchable location" information is sent with 911 calls so that 911 personnel and first responders can more quickly locate the caller. Dispatchable location information includes the street address of the caller and additional information, such as a room or floor number, necessary to adequately locate the caller.

The rules apply to the following 911-capable services:

- MLTS
- Fixed telephony
- Interconnected VoIP
- Internet-based TRS
- Mobile text

The dispatchable location rules and compliance deadlines for fixed telephony, VoIP, TRS, and mobile text differ depending on the particular service and whether the device used to make the call is fixed or non-fixed. Fixed devices (e.g., wired telephones) cannot be readily moved from one location to another by the user, while non-fixed devices (also described as mobile or nomadic devices) can readily be moved by the user for use at multiple locations or while in motion.

These rules do not apply to wireless providers, which are subject to separate location accuracy requirements and benchmarks.

WHAT YOU NEED TO KNOW

MLTS 911 calls from fixed devices.

By January 6, 2021, one year after the effective date of the rules, MLTS must provide an automated, dispatchable location with each 911 call. (See 47 CFR § 9.8(a).)

MLTS 911 calls from non-fixed devices.

On-premises MLTS 911 calls from non-fixed devices:

By January 6, 2022, two (2) years after the effective date of the rules, MLTS must provide either:

(1) automatic dispatchable location, if technically feasible. If not technically feasible, option (2) or (3) may be employed.
(2) dispatchable location based on end-user manual update.

(3) alternative location information, which may be coordinate-based, sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings.

Off-premises MLTS 911 calls from non-fixed devices:

By January 6, 2022, two (2) years after the effective date of the rules, MLTS must provide either:

(1) automatic dispatchable location, if technically feasible. If not technically feasible, option (2) or (3) may be employed.
(2) manually-updated dispatchable location.

(3) enhanced location information, which may be coordinate-based, consisting of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost.



COMPLIANCE

Kari's Law compliance date (MLTS direct dialing and notification) and exemption for legacy MLTS: Kari's Law and FCC rules are forward-looking and do not apply with respect to any MLTS that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed on or before February 16, 2020. (See 47 CFR § 9.17(b).)

Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Erratum

MLTSs are subject to compliance deadlines of January 6, 2021, and January 6, 2022, depending on the device from which the MLTS 911 call originates.

NEED MORE INFORMATION?

Fact Sheet Implementing Kari's Law and Section 506 of RAY BAUM'S Act

Multi-line Telephone System Requirements

National 911 Program

NOTES

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COMPLAINTS

Consumers

Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points

PSAPs and other public safety entities may request support from the Public Safety and Homeland Security Bureau and notify the Bureau of problems or issues affecting the provision of emergency services through the Public Safety Support Center.

Public Safety Support Center



While this informational guidance has been developed to assist in relaying general information and increase understanding, the reader is advised that the FCC is the definitive and official authority on compliance and requirements. MLTS AND 911 RULES FOR STATE AND LOCAL 911 ENTITIES In addition to federal statutes and FCC rules, many states have enacted legislation for MLTS that may include additional or different regulations and compliance rules. It is incumbent on the state entity to understand not only its own statutes but also become familiar with **OVERVIEW** federal statutes and FCC rules and the inherent differences. Comprehending and monitoring each statute or rule that affects MLTS installations and 911 call handling in your state is essential to maintaining and promoting state compliance. WHAT YOU NEED TO KNOW Twenty-four (24) states have enacted legislation that requires organizations over a certain size or purchasing a new PBX/MLTS system to implement E911 on the system. These states have adopted varied requirements for MLTS providers, and only in some instances have state laws specifically addressed prefix dialing requirements. STATE LAW To check on a specific state's law, click the "Select State from Drop-down List" below, then choose the state using the arrow in the box to the Select State from Drop-down List State and local public safety authorities DO NOT have the authority to waive the FCC's MLTS rules or to impose conditions on such waivers. STATE Requests for such waivers should, as with other FCC requirements, be presented to the FCC, while requests for waivers of state and local **AUTHORITY** requirements should be presented to the appropriate state or local governmental entity. REPORTING State reporting requirements will vary by state law; please consult the statute regarding any reporting requirements or specific compliance **REQUIREMENTS** complaint procedures. PUBLIC States may consider a public education effort to inform residents, owners and operators of MLTS systems, the public, and the emergency EDUCATION response community on Kari's Law and RAY BAUM'S Act, as appropriate. ITEM CHECKLIST **COMMENTS/NOTES** 1 Check for laws and regulations specific to your state or jurisdiction. Consider the need for outreach to owners and operators of systems 2 within the state, such as university systems, large hospitals or medical facilities, nursing homes, businesses with large campuses, etc.

3	If there is a local compliance officer or entity, such as a building inspector, fire marshal, etc., communicate these requirements with them and establish a working relationship that will assist both the compliance entity and the state or local 911 authority in fulfilling the requirements of the federal or state statute or regulations.	
4	Understand state reporting requirements, if applicable.	
5	Review and become familiar with Kari's Law requirements outlined in the "Overview" tab of this workbook.	
6	Review and become familiar with RAY BAUM'S Act requirements outlined in the "Overview" tab of this workbook.	
7	Become familiar with the FCC's Public Safety Support Center Complaint procedure requirements and processes.	
8	Consider an educational public information campaign directed at consumers and system owners/operators to acquaint each population with the new requirements specific to their interests.	
9	Update the state website to instruct, educate, and inform about Kari's Law and RAY BAUM'S Act and what the public should know.	

NEED MORE INFORMATION?

Click on the "References" tab in this workbook for additional information, or you may visit the FCC's Public Safety Support Center to request support from the Public Safety and Homeland Security Bureau at:

Public Safety Support Center

MLTS Frequently Asked Questions

NOTES

State and Local 911 Authorities are encouraged to review other tabs in this document for specific information on requirements for manufacturers, importers, sellers or lessors of individual MLTS.

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		MLTS AND 911 RULES FOR EMERGENCY CO OR PUBLIC SAFETY ANSWER	
OVEF	RVIEW	In addition to federal statute and FCC rules, many states have enacted and compliance rules. It is incumbent on the ECC to become familiar w Requirements" tab for each state's law.	
		WHAT YOU NEED TO K	(NOW
rules such as local timelines, reporting, or compliance requirements are important to operational effectiveness. Become familiar with the requirements of the state as well as the federal laws and what is expected of service providers and system owners/operators. Existing FCC complaint mechanisms should be used for addressing potential violations of Kari's Law. Consumer complaints should be filed with the FCC at the Consumer Complaint website.			
Consume	er Compla	aint website.	
Consume	er Compla		
Consume	er Compla	aint website. request support using the FCC's Public Safety Support Center. For both	websites, please see the links included below.
Consume	er Compla afety may ITEM	aint website. request support using the FCC's Public Safety Support Center. For both CHECKLIST Determine if any local ordinances exist beyond federal or state laws. Local requirements should be communicated to emergency	websites, please see the links included below. COMMENTS/NOTES

4	Revise training programs to include information on Kari's Law, RAY BAUM'S Act and any applicable state statute for ECC staff. The FCC encourages the development of voluntary best practices and employee training to prepare enterprises for responding to receipt of notification that a 911 call has been made. For instance, training could include the circumstances under which the notice recipient (or someone else at the enterprise) should dial the callback number included with the notification.	
5	Train operational personnel on revised procedures, call-handling protocols, or policy changes. Record/document training in accordance with ECC documentation and tracking requirements.	
6	Establish a process to test MLTS when they contact the ECC for assistance to determine compliance. Document testing date, results, contact information, etc.	
7	ECCs may want to consider a public information campaign to inform the local community of the federal, state, or local laws and rules that apply to emergency calls for service.	
8	Update the agency website to provide educational information on the requirements of Kari's Law and RAY BAUM'S Act.	
9	Review and, if necessary, establish operational requirements or update policy for the ECC for Kari's Law or state statute and dispatchable location requirements.	
10	Review and become familiar with Kari's Law requirements outlined in the "Overview" tab of this workbook.	



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Review and become familiar with RAY BAUM'S Act requirements outlined in the "Overview" tab of this document..

NEED MORE INFORMATION?

47 CFR Part 9, Subpart F - Multi-Line Telephone Systems

47 CFR § 9.16 - MLTS Dispatchable Location

NOTES

Assure 911 call-taker screens and data transfers into the computer-aided dispatch (CAD) event can handle additional data, (e.g., floor and room/zone data).

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MLTS AND 911 RULES FOR MLTS MANUFACTURERS

OVERVIEW	Kari's Law applies to any "person engaged in the business of manufacturing, importing, selling, or leasing" an MLTS and provides that such persons may not manufacture or import an MLTS for use in the United States, or sell or lease or offer to sell or lease an MLTS in the United States, unless the system is pre-configured so that, when properly installed, a user may directly initiate a call to 911 from any station equipped with dialing facilities. (47 U.S.C. § 623(a).) The effective date provision of Kari's Law states that the statute shall apply with respect to an MLTS that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020.
	WHAT YOU NEED TO KNOW
NOTIFICATION PROCEDURES	System providers "shall, in installing, managing, or operating such a system, configure the system to provide a notification to a central location at the facility where the system is installed or to another person or organization regardless of location, if the system is able to be configured to provide the notification without an improvement to the hardware or software of the system." (47 CFR § 9.16(b)(2)) The MLTS notification must be conspicuous and likely to draw attention, such as on-screen messages with audible alarms or text messages. The notification must, at a minimum, include: • The fact that a 911 call was made and notification sent contemporaneously with the 911 call to public safety but must not delay the 911 call • A valid callback number and notification to a person that is likely to see or hear the notification • Any location information provided to the PSAP shall be sent with the notification, such as the streeet address of the caller and additional information, such as a room or floor number, necessary to adequately locate the caller
	The callback number and location information do not have to be provided if it is not technically feasible, and the notification may provide a main phone line if it is not possible to provide the caller's direct line. Organizations may include additional information above and beyond the minimal requirements.
PRE- CONFIGURATION	Kari's Law requires that any person engaged in the business of manufacturing, importing, selling, or leasing an MLTS may not manufacture or import the MLTS for use in the United States, or sell or lease or offer to sell or lease it in the United States, unless it is pre-configured so that, when properly installed, a user may directly initiate a call to 911 from any station equipped with dialing capabilities.

COMPLIANCE REQUIREMENTS	Kari's Law directs the FCC to enforce the provisions of this law under Title V of the Communications Act of 1934, as amended. The effective date provision states that Kari's Law "shall apply with respect to a multi-line telephone system that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed after" February 16, 2020.
	Kari's Law Act of 2017
DISPATCHABLE LOCATION	 47 CFR 9.16 (b)(3) Obligation of installers, managers, or operators. "A person engaged in the business of installing multi-line telephone systems may not install such a system in the United States unless it is configured such that it is capable of being programmed with and conveying the dispatchable location of the caller to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. A person engaged in the business of managing or operating multi-line telephone systems may not manage or operate such a system in the United States unless it is configured such that the dispatchable location of the caller is conveyed to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. "(i) Dispatchable location requirements for on-premises fixed telephones associated with a multi-line telephone system. An on-premises fixed telephone associated with a multi-line telephone system. No later than January 6, 2022; an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed devices associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premi
	combination of technologies at reasonable cost." The FCC rules require that MLTSs covered by Kari's Law be configured so that notification is contemporaneous with the 911 call and does
	not delay the placement of the call to 911. Notification can occur in many forms, including Short Message Service (SMS) text messages, email, screen display, and conference calls. The delivery of text messages and email is not within the control of the MLTS provider or the MLTS user.
REPORTING	In the case of an MLTS that fails to comply with the rules, the MLTS manager is presumed to be responsible for that failure, at least in part, unless the manager can rebut the presumption by demonstrating compliance with its obligations under the statute and rules.
	The FCC considered, but did not exclude, equipment manufacturers from liability for the noncompliance of an MLTS manager unless the noncompliance results from the equipment's design. Kari's Law and FCC rules do not reference the "design" of an MLTS, and it was determined that doing so would introduce ambiguity into the enforcement process.

COMPLIANCE TIMELINES		The adopted direct dialing and notification requirements apply to MLTSs manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020.	
\checkmark	ITEM	CHECKLIST	COMMENTS/NOTES
	1	Ensure current systems comply with configuration requirements.	
	2	Ensure that all systems for import, sale, or lease are pre-configured so that, when properly installed, a user may directly initiate a call to 911 from any station equipped with dialing capabilities.	
	3	Ensure current systems for sale or lease send notification messages in accordance with FCC regulations and requirements.	
	4	Educate the purchasing department on the requirements of the federal statute, including compliance timeline requirements.	
	5	Educate the sales department on the requirements of the federal statute, including compliance timelines.	
	6	Educate the risk management department on the requirements of the federal statute, including compliance timelines and FCC-complaint procedures.	
	7	Educate the legal department on the requirements of the federal statute, including compliance timelines and FCC-complaint procedures.	
	8	Review and become familiar with Kari's Law requirements outlined in the "Overview" tab of this document.	



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Review and become familiar with RAY BAUM'S Act requirements outlined in the "Overview" tab of this document.

NEED MORE INFORMATION?

Rules and Regulations for Title 47

National 911 Program

NOTES

As confirmed by the FCC in the Federal Register, manufacturers, importers, sellers, or lessors of individual MLTS components are not subject to the FCC's MLTS rules to the extent that they manufacture, import, sell, or lease such components without the other components necessary for the system to function as an MLTS.

Implementing Kari's Law and RAY BAUM'S Act

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MLTS AND 911 RULES FOR MLTS INSTALLERS & MANAGERS		
	For the purposes of this document, the National 911 Program uses the term installer to refer to those entities that implement and configure MLTSs. MLTS managers are entities responsible for controlling and overseeing implementation of the MLTS after installation, such as determining how lines should be distributed, including the adding or moving of lines; assigning and reassigning telephone numbers; and ongoing network configuration.	
OVERVIEW	Any person engaged in the business of manufacturing, importing, selling, or leasing an MLTS may not manufacture or import the MLTS for use in the United States, or sell or lease, or offer to sell or lease it unless it is pre-configured so that, when properly installed, a user may directly initiate a call to 911 from any station equipped with dialing facilities.	
	Telephone system vendors that want to sell their products in the United Statees must comply with all laws and rules.	
	WHAT YOU NEED TO KNOW	
	MLTS installers, managers, and operators may not install, manage, or operate for use in the United States an MLTS, unless the system is configured so that a user may directly initiate a call to 911 from any station equipped with dialing facilities, without dialing any additional digit, code, prefix, or post-fix, including any trunk-access code such as the digit 9, regardless of whether the user is required to dial such a digit, code, prefix, or post-fix for other calls. (47 CFR §§ 9.15, 9.16, 9.17) Service providers "shall, in installing, managing, or operating such a system for use in the United States, configure the system to provide a	
	notification to a central location at the facility where the system is installed or to another person or organization regardless of location, if the system can be configured to provide the notification without an improvement to the hardware or software of the system." (47 CFR § 9.16(b)(2))	
GENERAL	The MLTS notification must be conspicuous and likely to draw attention, such as on-screen messages with audible alarms or text messages The notification must, at a minimum, include:	
	 The fact that a 911 call was made contemporaneous with the 911 call Must not delay the 911 call It must be sent to a location where someone is likely to see or hear it and any location information available must be provided to the PSAF 	
	The callback number and location information do not have to be provided if it is not technically feasible, and the notification may provide the main phone line if it is not possible to provide the caller's direct line. Organizations may include additional information above and beyond the minimal requirements.	

DISPATCHABLE	 47 CFR 9.16 (b)(3) Obligation of installers, managers, or operators. "A person engaged in the business of installing multi-line telephone systems may not install such a system in the United States unless it is configured such that it is capable of being programmed with and conveying the dispatchable location of the caller to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. A person engaged in the business of managing or operating multi-line telephone systems may not manage or operate such a system in the United States unless it is configured such that the dispatchable location of the caller is conveyed to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. "(i) Dispatchable location requirements for on-premises fixed telephones associated with a multi-line telephone system. An on-premises fixed telephone associated with a multi-line telephone system. No later than January 6, 2021; "(ii) Dispatchable location requirements for on-premises non-fixed devices associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. N
PRE- CONFIGURATION	Any person engaged in the business of installing, managing, or operating an MLTS may not do so unless the MLTS is configured so that a user may dial 911 directly.
COMPLIANCE TIMELINE	The direct dialing and notification requirements apply to MLTSs manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020.
LIABILITY	 Managing 911 requires full understanding of legal and regulatory risks. Potential exposures occur when enterprises: Fail to adequately plan for remote workers, satellite campuses, etc. Fail to provide dispatchable location information at the time of a 911 call Do not alert security teams and other key personnel that a 911 call has been made Intercept 911 calls before sending directly to the PSAP/ECC Replace primary rate interface (PRI) or dedicated circuits and move to the cloud

\checkmark	ITEM	CHECKLIST	COMMENTS/NOTES
	1	For systems installed or managed by the service provider, ensure those systems are configured to provide a notification to a central location at the facility where the system is installed in accordance with federal statute requirements.	
	2	Educate the purchasing department on the requirements of the federal statute, including compliance timeline requirements.	
	3	Educate the sales department on the requirements of the federal statute, including compliance timelines.	
	4	Educate the risk management department on the requirements of the federal statute, including compliance timelines and FCC complaint procedures.	
	5	Review and become familiar with Kari's Law and RAY BAUM'S Act requirements outlined in the "Overview" tab in this document.	
	6	Educate the legal department on the requirements of the federal statute, including compliance timelines and FCC complaint procedures.	
	NEED MORE INFORMATION?		
	Kari's Law Act of 2017		
	MLTS Frequently Asked Questions		
	47 CFR § 9.16 - MLTS Dispatchable Location		

NOTES

As confirmed by the FCC in the Federal Register, manufacturers, importers, sellers, or lessors of individual MLTS components are not subject to the FCC's MLTS rules to the extent that they manufacture, import, sell, or lease such components without the other components necessary for the system to function as an MLTS.

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COMPLAINTS

Consumers

Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points

PSAPs and other public safety entities may request support from the Public Safety and Homeland Security Bureau and notify the Bureau of problems or issues affecting the provision of emergency services through the Public Safety Support Center.

Public Safety Support Center



While this informational guidance has been developed to assist in relaying general information and increase understanding, the reader is advised that the FCC is the definitive and official authority on compliance and requirements.

MLTS AND 911 RULES FOR MLTS OWNERS / OPERATORS

	OVERVIEW	It is the responsibility of the business or organization utilizing the MLTS to maintain compliance. The information in this tab will assist enterprise owners and/or operators of the MLTS in ensuring they are compliant with the United States laws and rules regarding these systems, and offers additional considerations and resources if a system is found to be non-compliant.
		WHAT YOU NEED TO KNOW
	GENERAL	Kari's Law applies to any "person engaged in the business of installing, managing, or operating" an MLTS. Such entities "may not install, manage, or operate for use in the United States a system, unless such system is configured such that a user may directly initiate a call to 911 from any" station/extension/telephone or device that is equipped with dialing capability without dialing any additional digit, code, prefix, or post-fix, including any trunk-access code such as the digit 8 or 9, regardless of whether the user is required to dial such a digit, code, prefix, or post-fix for other types of calls. (47 CFR §§ 9.15, 9.16, 9.17)
,		Any person engaged in the business of installing, managing, or operating an MLTS may not do so unless the MLTS is configured so that a user may dial 911 directly.

A person engaged in the business of installing, managing, or operating multi-line telephone systems shall, in installing, managing, or operating such a system for use in the United States, configure the system to provide a notification to a central location at the facility where the system is installed or to another person or organization regardless of location.

FCC requirements encourage, but do not require, enterprises to include information about the date and time of the call, if it is available.

Notification is required to include the fact that a 911 call has been made, a valid callback number, and the same location information that is sent with the call to 911. However, there is an exception for callback number and location information in circumstances where including this information in the notification would be technically infeasible. Installers, managers, and operators are exempt from the notification requires an improvement to the software or hardware of the MLTS. Improvements may include upgrades to the core system of the MLTS, substantial software upgrades, or software upgrades requiring a significant purchase or investment.

NOTIFICATION

In installing, managing, or operating such a system for use in the United States, Owners and operators are to ensure systems are configured to provide a notification to a central location at the facility where the system is installed or to another person or organization, regardless of location, if the system can be configured to provide the notification without an improvement to the hardware or software of the system." (47 CFR § 9.16(b)(2))

The FCC defines MLTS notification as: "An MLTS feature that can send notice to a central location at the facility where the system is installed or to another person or organization regardless of location. Examples of notification include conspicuous on-screen messages with audible alarms for security desk computers using a client application, text messages for smartphones, and email for administrators. Notification shall include, at a minimum, the following information:

- (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 ..."

The callback number in the notification does not have to be a Direct Inward Dialing (DID) number to the 911 caller's extension if one is not available. The callback number and location information do not have to be provided if it is not technically feasible, and the notification may provide the main phone line if it is not possible to provide the caller's direct line. Organizations may include additional information above and beyond the minimal requirements.
Kari's Law requires an MLTS to support notification when an end user makes a 911 call, but it does not specify what information must be provided in the notification.
Notification could be directed to an on-site security desk that controls access to the premises, to an enterprise employee who may or may not be located at the facility where the MLTS is installed, or to a third party that provides security or safety services from an off-site location. MLTS notification could also be configured to combine these approaches by having notifications during business hours go to a central on- site location and off-hours notifications go to an off-site person or organization.
Notifications must be sent to a location on-site or off-site where someone is likely to hear or see the notification. The rules do not require that the notification point be continuously staffed or monitored, only that it be a location where someone is likely to see or hear the notification.
FCC rules encourage enterprises using the off-site notification option to encourage the development of voluntary best practices and training for enterprise personnel, including designated notice recipients, so that they are prepared to assist first responders in the event of an emergency.
The FCC does not require enterprises to notify end users of the 911 capabilities and limitations of MLTS that are not subject to the statute or FCC rules.

DISPATCHABLE	 47 CFR 9.16 (b)(3) Obligation of installers, managers, or operators. "A person engaged in the business of installing multi-line telephone systems may not install such a system in the United States unless it is configured such that it is capable of being programmed with and conveying the dispatchable location of the caller to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. A person engaged in the business of managing or operating multi-line telephone systems may not manage or operate such a system in the United States unless it is configured such that the dispatchable location of the caller to the PSAP with 911 calls consistent with paragraphs (i), (ii) and (iii) of this section. "(i) Dispatchable location requirements for on-premises fixed telephones associated with a multi-line telephone system. An on-premises fixed telephone associated with a multi-line telephone system. An on-premises fixed telephone associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an on-premises non-fixed device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-line telephone system. No later than January 6, 2022, an off-premises device associated with a multi-l
COMPLIANCE/ COMPLIANT PROCEDURES	Existing FCC complaint mechanisms are to be used for addressing potential violations of Kari's Law. Complaints should be filed with the FCC using its Public Safety Support Center complaint procedures. (See link below.)
TIMELINE	The adopted direct dialing and notification requirements apply to MLTSs manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020.
LIABILITY	 Managing 911 requires owners and operators of systems to have a full understanding of legal and regulatory risks. Potential exposures occur when enterprises: Fail to adequately plan for remote workers, satellite campuses, etc. Fail to provide dispatchable location information at the time of a 911 call Do not alert security teams and other key personnel that a 911 call has been made Intercept 911 calls before sending directly to the PSAP/ECC Replace PRI or dedicated circuits and move to the cloud

\checkmark	ITEM	CHECKLIST	NOTES
	1	 Before you do anything, you have to know where you stand. Contact the provider of your MLTS and ask them how they are configured to reach 911. Specific questions you can ask include: Do you offer direct access to 911? Is your service compliant with Kari's Law? When did you become compliant or when will you become compliant? Have you tested your system to ensure direct access to 911 is available? 	
	2	Document your conversation. If you are unable to get these questions answered, reach out to your 911 authority using the ten- digit or non-emergency phone number for advice on next steps.	
	3	If your MLTS provider confirms that its service offers direct access to 911, you might consider conducting and documenting your own testing. Coordinate this testing by contacting your local ECC/PSAP by their ten-digit non-emergency number and let them know you are interested in conducting a test of your MLTS and ask what time and day would work best for them.	
	4	Can end users direct dial 911 without the need to dial an access code first? For example, do you need to dial an asterick (*) or 9 for an outside line? One way to think about it is: could a child call for help without knowing how to operate the office phone system?	
	5	Do you have a plan for nomadic workers who move around the facilities, virtual workers who work off-premise, and satellite offices? Your human resources, facilities, and information technology teams can work with your legal counsel to help you determine how to support users in remote locations.	

6	When testing, do not stop at confirming direct access to 911. Ensure that your provider also meets the standards of the RAY BAUM'S Act and that a dispatchable location is also provided such as a floor, room, or office number.	
7	When speaking with 911, determine if you have accurately mapped your address, building, floor, and/or room. "Dispatchable location" (part of the requirement under RAY BAUM'S Act) is essentially the door that first responders need to find to assist callers. This address needs to be formatted correctly and validated for errors in a master street address guide (MSAG) format, or through geospatial routing. Ensure the address validates in their geographic information system (GIS) and is locatable for responders.	
8	Test the MLTS to ensure it can send notice to a central location at the facility where the system is installed or to another person or organization regardless of location. Examples of notification include conspicuous on-screen messages with audible alarms for security desk computers using a client application, text messages for smartphones, and email for administrators. Ensure notification includes, at a minimum, the following information: (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; provided, however, that the notification does not have to include a callback number or location information if it is technically infeasible to provide this information." See the FCC Fact Sheet link below.	
9	Document results of the test, including the date, time of testing, and the 911 person that assisted you.	
10	Designate a point of contact within the organization to oversee the compliance requirements.	

	11	Designate a central point of contact within the organization to receive the notifications required by the compliance requirements.		
	12	Consult with legal representation and or the organization's risk management officer regarding your compliance.		
	13	Understand compliance timelines and communicate those to the appropriate responsible parties within the organization.		
	14	Review and become familiar with Kari's Law requirements outlined in the "Overview" tab of this workbook.		
	15	Review and become familiar with RAY BAUM'S Act requirements outlined in the "Overview" tab of this workbook.		
NEED MORE INFORMATION?				
Fact Sheet Implementing Kari's Law and Section 506 of RAY BAUM'S Act				
47 CFR § 9.16 - MLTS Dispatchable Location				
Kari's Law Act of 2017				
NALTO Encryptus Action of Occupations				

MLTS Frequently Asked Questions

NOTES

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Public Safety Support Center

TERMS & ACRONYMS		
Term or Acronym	Definition	
Analog Telephone Adaptor (ATA)	A device used to connect a standard telephone to a computer or network so that the user can make calls over the Internet. (NENA Master Glossary of 9-1-1 Terminology Version 16, August 22, 2011)	
Automatic Number Information (ANI)	The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)	
Automatic Location Information (ALI)	The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates. See pALI. (NENA Master Glossary of 9-1-1 Terminology)	
Alternative Location Information	Alternative location information may be coordinate-based (latitude and longitude, and where available, vertical location), and must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. (FCC FAQs, 911 Direct Dialing, Notification, and Dispatchable Location Requirements for Multi-line Telephone Systems)	
Call Handling	Communications equipment used by the call taker/telecommunicator/dispatcher to answer and process the emergency calls and located in the customer's ECC facilities. (NENA Master Glossary of 9-1-1 Terminology)	
Campus	A set of buildings and spaces managed by a single entity.	
Cellular Market Area (CMA)	734 geographic markets areas in the U. S. used by the FCC to issue cellular licences. The FCC used the Cellular Market Areas (CMAs) to further divide the 40 MHz of spectrum into two (20 MHz amounts referred to as channel blocks), channel block A and channel block B. CMA's are used for determining what company will hold a single license for the A block and the B block in each CMA. (47 C.F.R., Part 22)	
Centralized Automated Message Accounting (CAMA)	A type of in-band analog transmission protocol that transmits telephone number via multi-frequency encoding. Originally designed for billing purposes. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)	

Commercial Mobile Radio Service (CMRS)	 A mobile service that is: (1) Provided for profit, i.e., with the intent of receiving compensation or monetary gain; An interconnected service; and Available to the public, or to such classes of eligible users as to be effectively available to a substantial portion of the public; or (2) The functional equivalent of such a mobile service described in paragraph (1) of this definition. (3) A variety of factors may be evaluated to make a determination whether the mobile service in question is the functional equivalent of a commercial mobile radio service, including: Consumer demand for the service to determine whether the service is closely substitutable for a commercial mobile radio service; whether changes in price for the service under examination, or for the comparable commercial mobile radio service, would prompt customers to change from one service to the other; and market research information identifying the targeted market for the service under review. (4) Unlicensed radio frequency devices are excluded from this definition of Commercial mobile radio service. (47 C.F.R. 9.3)
Communications Assistant (CA)	A person who transliterates or interprets conversation between two or more end users of TRS. Telecommunications relay service (TRS) allow a person who is deaf, hard of hearing, deaf-blind, or who has a speech disability to communicate over the telecommunications network in a manner functionality equivalent to a hearing person who does not have a speech disability using voice communication services. <i>(FCC Telecommunications Relay Service, 47, Part 64, Subpart F, Definitions)</i>
Computer Aided Dispatch (CAD)	A computer-based system, which aids PSAP Telecommunicators by automating selected dispatching and record keeping activities. (NENA Master Glossary of 9-1-1 Terminology)
Configured Multi-line Telephone System (MLTS)	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 MLTS notification, as required under the statute and rules. This 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. <i>(47 C.F.R. § 9.3)</i>
Customer Premise Equipment (CPE)	Communications or terminal equipment located in the customer's ECC facilities (NENA Master Glossary of 9-1-1 Terminology)
Direct Dialing	Directly initiate a call to 911 from any station equipped with dialing facilities, without dialing any additional digit, code, prefix, or post-fix, including any trunk-access code such as the digit 9, regardless of whether the user is required to dial such a digit, code, prefix, or post-fix for other calls. (47 C.F.R. § 9.16(b)(1))

Dispatchable Location	A location delivered to the PSAP with a 911 call that consists of the validated street address of the calling party, plus additional information such as suite, apartment or similar information necessary to adequately identify the location of the calling party, except for Commercial Mobile Radio Service providers, which shall convey the location information required by our existing rules. The definition of "dispatchable location" is functional and varies significantly depending on the environment from which a 911 call originates and the amount of information needed to adequately identify the caller's location. For MLTS calls placed from multi-story buildings or campus environments, dispatchable location will typically require specific floor and room information in addition to the street address. On the other hand, for MLTS calls placed from many small businesses, a validated street address alone may constitute dispatchable location because it provides first responders all the information they need to quickly locate the caller. <i>(FCC FAQs, 911 Direct Dialing, Notification, and Dispatchable Location Requirements for Multi-line Telephone Systems)</i>
Emergency Communications Center (ECC). See also Public Safety Answering Point (PSAP)	
Enhanced Location	Enhanced location information may be coordinate-based, and it must consist of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost. (47 CFR § $9.10(q)(10)(v)$.
ESInet	Emergency Services Internet Protocol (IP) Network (ESInet): A managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core services can be deployed, including, but not restricted to, those necessary for providing NG911services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks). The term ESInet designates the network, not the services that ride on the network. See NG911Core Services. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)

Emergency Services Number (ESN)	A 3-5 digit number that represents one or more ESZs. An ESN is defined as one of two types: Administrative ESN and Routing ESN. (NENA Master Glossary of 9-1-1 Terminology)
Emergency Service Zone (ESZ)	A geographical area that represents a unique combination of emergency service agencies (e.g., Law Enforcement, Fire and Emergency Medical Service) that is within a specified 9-1-1 governing authority's jurisdiction. An ESZ can be represented by an Emergency Service Number (ESN) to identify the ESZ. <i>(NENA Master Glossary of 9-1-1 Terminology)</i>
Federal Communications Commission (FCC)	An independent U.S. government agency overseen by Congress, the Federal Communications Commission regulates interstate and international communications by radio, television, wire, satellite and cable in all 50 states, the District of Columbia and U.S. territories. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
Fixed MLTS Device	"Fixed" MLTS devices are devices that connect to a single end point (e.g., a desk or office phone) and are not capable of being moved to another endpoint by the end user, although they may be capable of being moved to a different endpoint by a professional installer or network manager." (FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019. Footnote 402.)
Fixed Telephony	Transmitting voice over a telecommunications network by means of a device that connects to a single access point and is not capable of being moved by the end user. (FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019. Footnote 484.)
Fixed Voice over Internet Protocol (VoIP)	Services that provide the functional equivalent of fixed telephony by means of a device that connects to a single access point and is not capable of being moved by the end user. (FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019. Footnote 484.)
Geographic Information System (GIS)	A system for capturing, storing, displaying, analyzing and managing data and associated attributes which are spatially referenced.Representation of a real-world object in a GIS as a single geometric objectis called a "GIS Feature".Tabular information about "features"contained in GIS datais commonly referred to as an "attribute".Ref: NENA-STA-006, NENA Standard for NG911 GIS Data Model. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
Improvements to the Hardware or Software of the System	An improvement to the hardware or software of the MLTS, including upgrades to the core systems of the MLTS, as well as substantial upgrades to the software and any software upgrades requiring a significant purchase. (47 C.F.R. § 9.3)

 A service: (i) That is interconnected with the public switched network, or interconnected with the public switched network through an interconnected service provider, that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network; or (ii) For which a request for such interconnection is pending pursuant to section 332(c)(1)(B) of the Communications Act, 47 U.S.C. 332(c)(1)(B). (2) A mobile service offers interconnected service even if the service allows subscribers to access the public switched network only during specified hours of the day, or if the service provides general access to points on the public switched network but also restricts access in certain limited ways. Interconnected service does not include any interface between a licensee's facilities and the public switched network exclusively for a licensee's internal control purposes. <i>(47 CFR § 9.3)</i>
Direct or indirect connection through automatic or manual means (by wire, microwave, or other technologies such as store and forward) to permit the transmission or reception of messages or signals to or from points in the public switched network. (47 C.F.R. § 9.9)
 Service that: (1) Enables real-time, two-way voice communications; (2) Requires a broadband connection from the user's location; (3) Requires Internet protocol-compatible customer premises equipment (CPE); and (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network. Notwithstanding the foregoing, solely for purposes of compliance with the Commission's 911obligations, an interconnected VoIP service includes a service that fulfills each of subsections (1)-(3) above and permits users generally to terminate calls to the public switched telephone network. <i>(FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019)</i>
A form of telecommunications relay service (TRS) that permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an Internet Protocol-enabled device via the Internet to simultaneously listen to the other party and read captions of what the other party is saying. With IP CTS, the connection carrying the captions between the relay service provider and the relay service user is via the Internet, rather than the public switched telephone network. <i>(47 CFR § 9.3)</i>
Allows persons with a hearing or speech disability to use Telecommunications Relay Service through a computer or web- enabled device to communicate through the telephone system with hearing persons. (47 CFR § 9.3)
International standard for a public communication network to handle circuit-switched digital voice, circuit-switched data, and packet-switched data. (NENA Master Glossary of 9-1-1 Terminology)

Multi-Line Telephone System (MLTS)	Communications system(s) typically used in enterprise settings such as hotels, offices, and campuses. Under Kari's Law and RAY BAUM'S Act, an MLTS is defined 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. (47 C.F.R. § 9.3)
MLTS Notification	An MLTS feature that can send notice to a central location at the facility where the system is installed or to another person or organization regardless of location. Examples of notification include conspicuous on-screen messages with audible alarms for security desk computers using a client application, text messages for smartphones, and email for administrators. Notification shall include, at a minimum, the following information: (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; provided, however, that the notification does not have to include a callback number or location information if it is technically infeasible to provide this information. (47 C.F.R. § 9.3)
Memorandum of Agreement (MOA)	A document written between parties to cooperatively work together on an agreed upon project or meet an agreed upon objective.Also known as: Cooperative Agreement. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
Memorandum of Understanding (MOU)	A document that expresses mutual accord on an issue between two or more parties. <i>(NENA Master Glossary of</i> 9-1-1 Terminology)
Mobile Text/Short Message Service (SMS)	A service typically provided by mobile carriers that sends short (160 characters or fewer) messages to an endpoint. SMS is often fast, but is not real time. (NENA Master Glossary of 9-1-1 Terminology)
National Emergency Number Association (NENA)	A not-for-profit corporation established in 1982 to further the goal of "One Nation-One Number." NENA is a networking source and promotes research, planning and training. NENA strives to educate, set standards and provide certification programs, legislativerepresentation and technical assistance for implementing and managing 911 systems. (<i>www.nena.org</i>)
Next Generation 9-1-1 (NG9-1-1)	An Internet Protocol (IP)-based system comprised of managed Emergency Services IP networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provides additional capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for Public Safety Answering Points (PSAPs) and other emergency service organizations. <i>(NENA Master Glossary of 9-1-1 Terminology)</i>
Nomadic Device	In the context of location information to support IP based emergency services: A user is said to be using a nomadic device if they are constrained within an access network such that their location can be represented as a definitive civic address for that network attachment. The user may move from one network attachment to another but cannot maintain a session during that move. If the user is able to move outside the definitive civic address without losing network attachment then the user is considered to be mobile, not nomadic. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)

Non-Fixed MLTS Device 911 Call	Devices that connect to a single end point (e.g., a desk or office phone) and are not capable of being moved to another endpoint by the end user, although they may be capable of being moved to a different endpoint by a professional installer or network manager. "Non-fixed" MLTS devices are devices that the end user can move from one endpoint to another without assistance. <i>(FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019. Footnote 402.)</i>
Non-Fixed VoIP Service	Services that provide the functional equivalent of fixed telephony by means of a device that connects to a single access point and is not capable of being moved by the end user. Non-fixed VoIP services are VoIP services that enable the end user to connect a handset or other IP-enabled device to multiple access points. (FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019. Footnote 484.)
Off Premise 911 Call	For a multi-line telephone system, the 911 call is sent by a device within the MLTS system but not resident within the fixed property (e.g. building(s), facilities, or campus of the MLTS switch) but still under the operational control of a single administrative authority of the MLTS system. When an MLTS end user is off premises, the MLTS does not typically send location information. For off-premises 911 calls, the MLTS operator or manager must provide (1) dispatchable location, if technically feasible, or, otherwise, either (2) manually-updated dispatchable location, or (3) enhanced location information, which may be coordinate based, consisting of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost. control or have access to location information. <i>(FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019.)</i>
On Premises	Term frequently used in the context of a multi-line telephone system, within the fixed property (e.g. building(s), facilities, or campus) and under the operational control of a single administrative authority. (47 CFR § 9.3)
Originating Service Environment (OSE)	A combination of Originating Service Provider, Network Access Provider, Location Information Provider and Smartphone Applications provider. (FCC Task Force on Optimal Public Safety Answering Point Architecture (TFOPA). December 10, 2015. Retrieved from https://transition.fcc.gov/pshs/911/TFOPA/TFOPA_WG2-121015.pptx)
Originating Service Provider (OSP)	Organization responsible for delivering location information with their 911 call setup messages or provide location information services (LIS) capabilities.(<i>National 911 Program National 911 Progress Report, November 2019. Retrieved from 911.gov:</i> https://www.911.gov/pdf/National-911-Program-Profile-Database-Progress-Report-2019.pdf)
Person engaged in the business of installing an MLTS	A person that configures the MLTS or performs other tasks involved in getting the system ready to operate. These tasks may include, but are not limited to, establishing the dialing pattern for emergency calls, determining how calls will route to the Public Switched Telephone Network (PSTN), and determining where the MLTS will interface with the PSTN. These tasks are performed when the system is initially installed, but they may also be performed on a more or less regular basis by the MLTS operator as the communications needs of the enterprise change. The MLTS installer may be the MLTS manager or a third party acting on behalf of the manager. (47 C.F.R. § 9.3)
Person engaged in the business of managing an MLTS	The entity that is responsible for controlling and overseeing implementation of the MLTS after installation. These responsibilities include determining how lines should be distributed (including the adding or moving of lines), assigning and reassigning telephone numbers, and ongoing network configuration. (47 C.F.R. § 9.3)

Person engaged in the business of manufacturing, importing, selling, or leasing an MLTS	A person that manufactures, imports, sells, or leases an MLTS. (47 C.F.R. § 9.3)
Person engaged in the business of operating an MLTS	A person responsible for the day-to-day operations of the MLTS. (47 C.F.R. § 9.3)
Person/Point of Contact (POC)	A NG9-1-1 system administrator/single point of contact specified by the integration policy which should stipulate communication methods between state partners, and minimum timeframes for communication system reports and issues, procedures for dispute resolution, and technology/equipment ownership specifics. (National 911 Program. Next Generation 911 (NG9-1-1) Interstate Playbook: Implementing State-to-State 9-1-1 Connectivity Lessons Learned, Challenges, and Opportunities. October 2016. Retrieved from 911.gov: https://www.911.gov/pdf/National_911_Program_NG911_Interstate_Playbook_2016_Updated%20Jun2018_Final.pdf)
Pre-Configured MLTS	An MLTS that comes equipped with hardware and/or software capable of establishing a setting that enables users to directly dial 911 as soon as the system is able to initiate calls to the public switched telephone network, so long as the MLTS is installed and operated properly. This 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. (47 C.F.R. § 9.3)
Private Branch Exchange (PBX)	A private telephone switch that is connected to the Public Switched Telephone Network. (NENA Master Glossary of 9-1-1 Terminology)
Psuedo Automatic Location Identification (p-ALI)	An ALI record associated with a pANI, configured to provide the location of the wireless cell or sector and information about its coverage or serving area (footprint). (NENA Master Glossary of 9-1-1 Terminology)
Psuedo Automatic Number Identification (p-ANI)	A telephone number used to support routing of wireless 9-1-1 calls. It may identify a wireless cell, cell sector or PSAP to which the call should be routed. Also known as: routing number. (NENA Master Glossary of 9-1-1 Terminology)
Public Safety Answering Point (PSAP)	An entity responsible for receiving 911 calls and processing those calls according to a specific operational policy. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
Public Switched Telephone Network (PSTN)	The network of equipment, lines, and controls assembled to establish communication paths between calling and called parties in North America. (NENA Master Glossary of 9-1-1 Terminology)
RAY BAUM'S ACT	This legislation and subsequent FCC rules ensure that members of the public can dial 911 to request emergency services and that Public Safety Answering Points (PSAPs) can quickly and accurately locate every 911 caller, regardless of the type of service that is used to make the call. Section 506 of RAY BAUM'S Act, required the FCC to consider adopting rules to "ensure that a dispatchable location is conveyed with a 911 call, regardless of the technological platform used and including with calls from [MLTS]." (FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act Report and Order - PS Docket Nos. 18-261 and 17-239, and GN Docket No. 11-117, August 1, 2019.)

Real Time Text (RTT)	Text communications that are transmitted over Internet Protocol (IP) networks immediately as they are created, e.g., on a character-by-character basis. (47 C.F.R. § 9.3)
Registered Location	"The 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)
Standard Operating Procedure (SOP)	A written directive that provides a guideline for carrying out an activity. The guideline may be made mandatory by including terms such as "shall" rather than "should" or "must" rather than "may". (NENA Master Glossary of 9-1-1 Terminology)
Signaling System No. 7 (SS7)	An out-of-band signaling system used to provide basic routing information, call set-up and other call termination functions. Signaling is removed from the voice channel itself and put on a separate data network.Also known as:CCS7(Common Channel Signaling 7). (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
System Manufacturer	Producer or entity which is a builder of an MLTS systems for sale or installation. (FCC Multi-line Telephone Systems – Kari's Law and RAY BAUM'S Act 911 Direct Dialing, Notification, and Dispatchable Location Requirements)
System Provider	An entity providing one or more of the following 911 elements: network, CPE, or database service. Also known as Service Provider. (<i>NENA Master Glossary of 9-1-1 Terminology</i>)
Telephone Relay Service (TRS)	Telephone transmission services that provide the ability for an individual who has a hearing or speech disability to engage in communication by wire or radio with a hearing individual in a manner that is functionally equivalent to the ability of an individual who does not have a hearing or speech disability to communicate using voice communication services by wire or radio. Such term includes services that enable two-way communication between an individual who uses a text telephone or other nonvoice terminal device and an individual who does not use such a device, speech-to-speech services, video relay services and non-English relay services. TRS supersedes the terms "dual party relay system," "message relay services," and "TDD Relay." <i>(47 C.F.R. § 9.3)</i>
Telephony	The word used to describe the science of transmitting voice over a telecommunications network. (www.fcc.gov/general/glossary- telecommunications-terms)
Video Relay Service (VRS)	A telecommunications relay service that allows people with hearing or speech disabilities who use sign language to communicate with voice telephone users through video equipment. The video link allows the CA to view and interpret the party's signed conversation and relay the conversation back and forth with a voice caller. (47 C.F.R. § 9.3)
Voice over Internet Protocol (VoIP)	Technology that permits delivery of voice calls and other real-time multimedia sessions over IP networks. <i>(NENA Master Glossary of 9-1-1 Terminology)</i>
Wi-Fi®	A wireless networking technology that uses radio waves to provide wireless high-speed internet and network connections. Wi-Fi is a registered trademark phrase that means IEEE 802.11x. (NENA Master Glossary of 9-1-1 Terminology)



REFERENCES

REFERENCES
The following references are provided for access to relevant informational documents and other support materials that might be useful.
CMRS
<u>CMRS - 47 CFR § 9.10</u>
Connected VoIP/Fixed Telephony
Connected VoIP/Fixed Telephony - 47 CFR § 9.8
FCC Consumer Complaint Center Filing Information
Consumer Complaint Center
FCC Dispatchable Location for 911 Calls from Fixed Telephony, Interconnected VoIP, TRS, and Mobile Text
Dispatchable Location
FCC Dispatchable Location Frequently Asked Questions
Dispatchable Location Frequently Asked Questions
FCC Dispatchable Location Requirements
Dispatchable Location
FCC Federal Register
Federal Register
FCC Fifth Report and Order
Fifth Report and Order PS Docket No. 07-114
FCC Fourth Report and Order
Fourth Report and Order PS Docket No. 07-114
FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Erratum
Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Erratum
FCC Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Report and Order
Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Report and Order
FCC Indoor Location Accurach Benchmarks
Wireless Location Indoor Accuracy Benchmarks
FCC MLTS Compliance Timelines (Direct Dialing, Notification and Dispatchable Location)
MLTS Compliance Timelines
FCC MLTS Frequently Asked Questions
MLTS Frequently Asked Questions
FCC Non-MLTS Dispatchable Location Timelines (fixed telephony, IVoIP, Mobile Text, TRS)
Non-MLTS Dispatchable Location Timelines
FCC Public Safety Support Center
Public Safety Support Center
FCC Report and Order 19-76
Report and Order (FCC 19-76)
FCC Requirements for MLTS and Dispatchable Locations
Multi-line Telephone System Requirements

REFERENCES
FCC Sixth Report and Order on Reconsideration (20-98)
Sixth Report and Order on Reconsideration PS Docket No. 07-114
FCC Small Entity Compliance Guide
Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Compliance Guide
FCC Wireless E911 Location Accuracy Requirements, Fifth Report and Order, Wireless E911 Location Accuracy Requirements
Location Accuracy Requirements - PS Docket No. 07-114
Interconnected VoIP Systems
47 CFR § 9.11, 9.12 - Interconnected VoIP
Kari's Law Act of 2017 (Pubic Law 115-127, February 16, 2018)
Kari's Law Act of 2017
Mobile Text Systems
<u>Mobile Text - 47 CFR § 9.10(q)</u>
National 911 Program Website
National 911 Program
National Emergency Number Association (NENA)
National Emergency Number Association
NENA Master Glossary of 911 Terminology National Emergerency Number Association Online Master Glossary of 911 Terminology
NENA Master Glossary of 9-1-1 Terminology NENA 00-001, Version 16, August 22, 2011
NENA Master Glossary of 9-1-1 Terminology NENA 00-001, Version 16
National Emergency Number Association (NENA) Video Relay Service & IP Relay Service PSAP Interaction Information
NENA Video Relay Service & IP Relay Service PSAP Interaction Information Document
Telecommunications Relay Service (TRS) for Persons with Disabilities
<u>TRS - 47 CFR § 9.13, 9.14</u>