This informational guidance has been developed to assist in relaying general information and increase understanding related to dispatchable location. The reader is advised, however, that the FCC is the definitive and official authority on compliance and requirements.

HOW TO USE THIS DOCUMENT

This document is designed to help you understand and comply with laws and rules related to dispatchable location requirements. The tabs in this document include background information, rules and regulations by service provider type, compliance obligations, timeline requirements, instructions to follow or actions to take, and references for additional information.

The information in this document is taken from several resources; minor modifications in text for readability, understanding and organization have been made. References and Uniform Resource Locator (URL) links are included at the bottom of each tab or are included in the “Reference” tab.

WHAT IS INCLUDED IN EACH TAB

Each tab in this document is addressed to a particular community of interest or service type as it relates to dispatchable location requirements. Every tab will present information as a general overview of how the law and rules affect the service type, a summary of requirements, application of the rules by service type, compliance regulations, and timelines. In addition, each tab includes other information or links to supporting resources to consult for more complete information and a better understanding of compliance obligations.

CHECKLIST

On each tab describing the service type, the reader will find a Checklist. The Checklist is provided to assist the user of this document in identifying pertinent information, process steps, compliance dates, and milestones that are significant for that service type. The Checklist can be printed and used as a separate document to manage and track the entity's compliance with Federal Communications Commission (FCC) rules. If used on-line, the checkboxes are an interactive tool that will help the entity track and document its compliance. When the task is complete and the checkbox is marked, the step/task will turn green, signifying task completion.

TERMS

Terms and acronyms used in this document as well as in the resources referenced can be found in this tab. Sources are noted to assure the user of this document of the industry validity of the definition.

REFERENCES

The information in this document is taken from authoritative resources (such as the FCC, National Emergency Number Association [NENA], and others); only minor modifications in text for readability, understanding, and organization have been made. References and URL links to other documents are included at the bottom of each tab or are included in the “Reference” tab.

NOTES

Additional notes or information related to the tab topic will be provided here.

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OVERVIEW

This tab contains additional information regarding dispatchable location requirements under RAY BAUM'S Act to be sent with 911 calls.

Named in honor of Ray Baum, RAY BAUM'S Act is also an acronym that stands for Repack Airwaves Yielding Better Access for Users of Modern Services. 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. 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.

Section 506 of the RAY BAUM'S Act requires that "dispatchable location" information is conveyed with 911 calls, regardless of the technology used, so that 911 call centers 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.

In 2019, the FCC adopted regulations aimed at ensuring that the advanced communications tools used in an enterprise environment continue to support critical end-user emergency response needs when and where they're necessary.

WHO IS IMPACTED BY RAY BAUM'S ACT REQUIREMENTS

RAY BAUM'S ACT impacts service providers, system manufacturers, state and local 911 authorities, and emergency communications centers (ECCs)/public safety answering points (PSAPs). and owner/operators of multi-line telephone systems (MLTS). 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.

The RAY BAUM'S Act, as implemented by the FCC, impacts any company providing MLTS service and enterprises of any size using MLTS, such as:

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

WHAT IS RAY BAUM'S ACT?

While the RAY BAUM'S 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 has recently adopted regulations aimed at ensuring that the advanced communications tools used in an enterprise environment continue to support critical end-user 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.

DISPATCHABLE LOCATION FOR 911 CALLS

Section 506 of the RAY BAUM'S Act requires that "dispatchable location" information is conveyed with 911 calls, regardless of the technology used, so that 911 call centers 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.

NEED MORE INFORMATION?

MTLS Dispatchable Location for 911 Calls

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

RAY BAUM'S Act Requirements

NOTES

NOTES: RAY BAUM'S Act compliance date (dispatchable location) rules are forward-looking and do not apply with respect to any system that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed on or before February 16, 2020.

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WIRELESS DISPATCHABLE LOCATION	
OVERVIEW	Wireless location accuracy rules predate dispatchable location rules. The information in this tab is intended to provide background and history on the evolution of wireless location accuracy as addressed by FCC actions. For information on dispatchable location requirements, consult the "Dispatchable Location" tab in this document and the subsequent references provided. On January 29, 2015, the FCC adopted Enhanced 911 (E911) location accuracy rules and information collection requirements in the Fourth Report and Order in PS Docket No. 07-114. The rules became effective on April 3, 2015, except for rules containing information collection provisions, which became effective on August 3, 2015. On November 22, 2019, the FCC adopted E911 vertical indoor location accuracy rules and information collection requirements in the Fifth Report and Order in PS Docket No. 07-114. The new rules became effective on March 16, 2020. On July 16, 2020, the FCC built on its efforts to help first responders locate people who call 911 from wireless phones in multi-story buildings. The July 2020 FCC order is aimed at helping emergency responders determine the floor level of wireless 911 callers in the largest markets and extends those requirements nationwide, hopefully, reducing response times.
WHAT YOU NEED TO KNOW	
WIRELESS PHASE I ENHANCED 911 SERVICES	As of April 1, 1998, licensees are required to provide the telephone number of the originator of a 911 call and the location of the cell site or base station receiving a 911 call from any mobile handset accessing their systems to the designated PSAP through the use of automatic number identification (ANI) and pseudo ANI (pANI). When the directory number of the handset used to originate a 911 call is not available to the serving carrier, such carrier's obligations extend only to delivering 911 calls and available calling party information to the designated PSAP.
WIRELESS PHASE II ENHANCED 911 SERVICES	Licensees subject to this section must provide to the designated PSAP Phase II E911 service, i.e., the location of all 911 calls by longitude and latitude in conformance with FCC Phase II accuracy requirements.
NETWORK-BASED LOCATION TECHNOLOGIES	Licensees using a network-based location technology are required to provide Phase II E911 service to at least fifty percent (50%) of their coverage area or fifty percent (50%) of their population.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	Educate the purchasing department on the requirements of the federal statute, including compliance timeline requirements.	
☐	2	Educate the sales department on the requirements of the federal statute, including compliance timelines.	
☐	3	Educate the risk management department on the requirements of the federal statute, including compliance timelines and FCC complaint procedures.	
☐	4	Review and become familiar with RAY BAUM'S Act requirements outlined in this document.	

COMPLAINTS

Consumers

Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points

PSAPs, also known as ECCs, 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

NEED MORE INFORMATION?

Location Accuracy Requirements - PS Docket No. 07-114

Wireless Location Indoor Accuracy Benchmarks

Fourth Report and Order PS Docket No. 07-114

Fifth Report and Order PS Docket No. 07-114

Sixth Report and Order on Reconsideration PS Docket No. 07-114

NOTES
Wireless location requirements can be found here: 911 Requirements - 47 CFR-PART 9 WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

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DISPATCHABLE LOCATION RULES	
OVERVIEW	This tab contains information regarding dispatchable location. For information on Kari's Law, please consult 911.gov. The National 911 Program informational document is similar to this one with information for state and local 911 authorities, PSAPs/ECCs, service providers by service type, and additional references and links related to Kari's Law. The FCC's dispatchable location rules 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 be in compliance with the dispatchable location rules. As outlined below, MLTSs are subject to dispatchable location compliance deadlines of January 6, 2021 and January 6, 2022, depending on the type of the device from which the 911 call originates. 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 room or floor number, necessary to adequately locate the caller. On November 22, 2019, the FCC established the z-axis location accuracy metric as plus or minus three meters relative to the handset for 80% of indoor wireless 911 calls. Nationwide wireless providers must meet April 2021 and April 2023 deadlines for deploying z-axis technology, which must comply with the metric for accuracy, in the top 25 and 50 markets, respectively. The FCC added a new requirement that nationwide wireless providers deploy z-axis technology nationwide by April 2025, while affording non-nationwide wireless providers an additional year (i.e., until April 2026) to do so within their service areas. To give wireless providers additional flexibility in meeting these requirements while still advancing critical public safety objectives, the FCC allowed providers to deploy technologies that focus on multi-story buildings, where vertical location information is most vital to first responders. The FCC also required wireless providers, beginning in January 2022, to provide dispatchable location with wireless 911 calls when it is technically feasible and cost-effective to do so, which will promote consistency in the FCC's 911 rules across technology platforms.

WHAT YOU NEED TO KNOW	
GENERAL	Besides MLTS, the rules apply to the following 911-capable services: • Fixed telephony • Interconnected VoIP • Internet-based TRS • Mobile text
COMPLIANCE RULES & DEADLINES	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. Please consult the tabs in this document for the specific service type to better understand the requirements for that service.
ADDITIONAL INFORMATION	The FCC adopted rules to implement dispatchable location requirements that are measured, technologically neutral, and include a phased-in compliance timetable to minimize implementation costs and leverage technological advances. The FCC's measured approach seeks to minimize costs and burdens for small businesses and other enterprises where possible, while providing these MLTS and communications service providers significant flexibility to comply with the rules adopted.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	Review and understand dispatchable location compliance requirements.	
☐	2	Determine the applicability of dispatchable location compliance requirements to systems.	
☐	3	Become familiar with compliance deadlines.	

COMPLAINTS

Consumers
Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points
PSAPs, also known as ECCs, 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

NEED MORE INFORMATION?

Dispatchable Location

Multi-line Telephone System Requirements

Dispatchable Location Frequently Asked Questions

NOTES

Wireless location requirements can be found here:

911 Requirements - 47 CFR-PART 9

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DISPATCHABLE LOCATION RULES FOR FIXED TELEPHONY	
OVERVIEW	This tab contains additional information regarding requirements for fixed telephony providers to furnish dispatchable location with 911 calls. Dispatchable location information includes the street address of the caller and additional information, such as room or floor number, necessary to adequately locate the caller. Fixed telephony providers already deliver validated street address information with 911 calls, which should meet the FCC's dispatchable location requirement for single-family dwellings.
WHAT YOU NEED TO KNOW	
FIXED TELEPHONY RULE	The rules for fixed devices operating on fixed telephony require an automated dispatchable location with each 911 call. This means that the location information is generated automatically, without any action by the 911 caller when placing the call.
AUTOMATIC DISPATCHABLE LOCATION	Providing a dispatchable location for 911 calls from fixed devices used on premises should be provided automatically and the street address associated with the fixed end-point should be validated. Providers of fixed telephony services are required to provide automated dispatchable location with 911 calls beginning January 6, 2021.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	By January 6, 2021, fixed telephony service providers must deliver automated dispatchable location with each 911 call.	

COMPLAINTS
Consumers Consumers may file a complaint via the Consumer Complaint Center. Consumer Complaint Center **Public Safety Answering Points** PSAPs, also known as ECCs, 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
NEED MORE INFORMATION?
Connected VoIP/Fixed Telephony - 47 CFR § 9.8 FCC.gov

NOTES

The rules for non-fixed VoIP, TRS, and mobile text devices require provision of automated dispatchable location with each 911 call if it is technically feasible. If providing automated dispatchable location with a 911 call from a non-fixed device is not feasible, the rules allow provision of alternative location information. The requirements for alternative location information vary depending on the particular service: for VoIP and TRS, alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. In some circumstances, these services also may provide the caller's Registered Location. Mobile text enhanced location information also 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.

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DISPATCHABLE LOCATION RULES FOR INTERCONNECTED VoIP SERVICES	
OVERVIEW	This tab contains additional information regarding requirements for interconnected VoIP automatic transmission of dispatchable location information to the PSAP. Interconnected VoIP service providers must send an automatic dispatchable location for non-fixed devices when technically feasible but may rely on the end user to provide or confirm dispatchable location information manually (e.g., by responding to a system prompt). "Alternative location information" is defined as location information sufficient to identify the caller's civic address and approximate in-building location. In large multi-story buildings, this should normally include floor level and approximate location on the floor (e.g., building quadrant). This requirement is similar to the approach the FCC took in its wireless E911 rules, which allowed wireless carriers to provide either dispatchable location or x/y/z coordinate-based location information for indoor wireless 911 calls. The rules for non-fixed VoIP devices require provision of automated dispatchable location with each 911 call if it is technically feasible. If providing automated dispatchable location with a 911 call from a non-fixed device is not feasible, the rules allow provision of alternative location information. The requirements for alternative location information vary depending on the particular service. For VoIP, alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. In some circumstances, these services also may provide the caller's Registered Location.

WHAT YOU NEED TO KNOW	
INTERCONNECTED VoIP	Interconnected VoIP service providers must, as a condition of providing service to a consumer: • Provide that consumer with E911 service; • Transmit all 911 calls, as well as ANI and the caller's Registered Location for each call, to the PSAP, designated statewide default answering point, or appropriate local emergency authority that serves the caller's Registered Location and that has been designated for telecommunications carriers pursuant to 47 CFR § 9.4, provided that “all 911 calls” is defined as “any voice communication initiated by an interconnected VoIP user dialing 911;” • All 911 calls must be routed through the use of ANI and, if necessary, pANI, via the dedicated wireline E911 network; and • The Registered Location must be available to the appropriate PSAP, designated statewide default answering point, or appropriate local emergency authority from or through the appropriate automatic location information (ALI) database. Prior to the August 1, 2019, Report and Order FCC 19-76 in PS Docket No.18-261, 17-239 and GN Docket No. 11-117, interconnected VoIP providers were required to notify customers of E911 service limitations by distributing warning stickers or labels. The new rules retain this provision but also allow providers to notify existing and new subscribers by “other conspicuous means,” so long as the notification is prominently displayed or highlighted in a manner that makes it likely to be seen by the customer. As an example, inclusion of the notification in the fine print of an online customer agreement would be insufficient. The rules for interconnected VoIP devices require automated dispatchable location with each 911 call, which means that the location information is generated automatically, without any action by the 911 caller when placing the call.
FIXED DEVICES	The rules for interconnected VoIP devices require automated dispatchable location with each 911 call, which means that the location information is generated automatically, without any action by the 911 caller when placing the call.
NON-FIXED DEVICES	The rules for non-fixed interconnected VoIP devices require automated dispatchable location with each 911 call if it is technically feasible. If providing automated dispatchable location with a 911 call from a non-fixed interconnected VoIP device is not feasible, the rules allow Registered Location information or alternative location information to be provided.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	These requirements for interconnected VoIP take effect two years from the effective date of rules adopted in this order (before January 6, 2021, for fixed services and before January 6, 2022, for non-fixed services).	
☐	2	Fixed interconnected VoIP: By January 6, 2021, one year after the effective date of the rules, service providers, (excluding outbound-only interconnected VoIP service providers) must deliver automated dispatchable location with each 911 call or Registered Location. Dispatchable location may be determined by means of a customer-generated Registered Location in the fixed VoIP context (to the extent a physical location conveys a street address that is validated), it must be provided automatically to the PSAP by the VoIP service provider, without additional action by the caller, at the time the 911 call is made. VoIP service providers have the option of meeting the customer notification requirement at 47 CFR § 9.11(a)(5)(iii) of the rules by notifying existing subscribers, and each new subscriber prior to the initiation of that subscriber's service, by conspicuous means other than warning stickers or labels if E911 service may be limited or not available.	

☐	**3**	Non-fixed interconnected VoIP: By January 6, 2022, two years after the effective date of the rules, service providers must first determine if automated dispatchable location is technically feasible. If not technically feasible, they must provide either: • Registered Location information, or • 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. As a last resort, providers also may route the caller to a national emergency call center, as long as the provider has made a good-faith effort to obtain location data from all available alternative location sources. (47 CFR § 9.11(b)(4)(ii); see also Report and Order)	

☐	**4**	Outbound-only interconnected VoIP service providers: This service type generally permits users to initiate calls that terminate to the public switched telephone network (PSTN). Outbound-only interconnected VoIP service providers must comply with the FCC 911 obligations including the requirement to notify subscribers of any limitations to the 911 service.	

COMPLAINTS

Consumers
Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points
PSAPs, also known as ECCs, 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

NEED MORE INFORMATION?
47 CFR § 9.11, 9.12 - Interconnected VoIP FCC VoIP Fact Sheet Implementing Kari's Law and Section 506 of RAY BAUM'S Act - Report and Order Report and Order (FCC 19-76)
NOTES
Although outbound-only VoIP services were not previously covered by the FCC's 911 requirements for interconnected VoIP, the FCC's August 2019 order extended 911 requirements, including the new location requirements, to outbound-only interconnected VoIP providers. WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

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DISPATCHABLE LOCATION RULES FOR MOBILE TEXT	
OVERVIEW	This tab contains additional information regarding text-to-911. Text-to-911 is the ability to send a text message to reach 911 emergency call takers from your mobile phone or device. Please note that text-to-911 is only currently available in certain locations. The rules for mobile text devices require provision of automated dispatchable location with each 911 call if it is technically feasible. If providing automated dispatchable location with a 911 call from a non-fixed device is not feasible, the rules allow provision of alternative location information. Mobile text enhanced location information also 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. Location technology options available to text providers have significantly expanded since the FCC adopted its text-to-911 rules on August 8, 2014. Recent improvements in technology now have the potential to provide location information for an increasing percentage of 911 texts. Wireless carriers are transitioning mobile wireless text services from Short Message Service (SMS) to more robust IP-enabled platforms, such as real-time text (RTT), which can support sending location information with 911 texts using some of the same location methodologies that are used to support IP-based voice services.
WHAT YOU NEED TO KNOW	
LOCATION INFO FOR ROUTING	Current FCC text-to-911 rules require mobile carriers and other covered text providers to obtain location information sufficient to route text messages to the appropriate PSAP, but text providers are not required to provide additional location information to the PSAP.
PSAP/ECC TEXT TO 911	The FCC encourages PSAPs/ECCs to begin accepting texts, but it is up to each call center to decide the particular method in which to implement and deploy text-to-911 technology. FCC rules require all wireless carriers and other providers of text messaging applications in the U.S. to deliver emergency texts to call centers that request them. If a call center requests text-to-911 service, text messaging providers must deliver the service in that area within six months.
MOBILE TEXT LOCATION INFO	For mobile text, 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.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	By January 6, 2022, covered text providers must provide automated dispatchable location with all 911 text messages routed to a PSAP/ECC if technically feasible. If doing so is not technically feasible, the covered text provider must provide either: • Manually updated dispatchable location, or • Enhanced location information consisting of the best available location that can be obtained from any available technology or combination of technologies at reasonable cost. See link below: Dispatchable Location	

COMPLAINTS
Consumers Consumers may file a complaint via the Consumer Complaint Center. Consumer Complaint Center **Public Safety Answering Points** PSAPs, also known as ECCs, 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
NEED MORE INFORMATION?
Mobile Text - 47 CFR § 9.10(q) Text-to-911 Quick Facts
NOTES
Text-to-911 is only currently available in certain locations. Please check your area for availability. Even in areas where PSAPs/ECCs accept text-to-911, existing voice-based 911 service is still the most reliable and preferred method of contact. WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

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911 RULES FOR TELECOMMUNICATION and VIDEO RELAY SERVICES (TRS and VRS) OPERATORS	
OVERVIEW	This tab contains additional information regarding special circumstances and applications for which the state, service provider, or PSAPs/ECCs may need to more fully understand Telecommunications Relay Services. TRS subject to 911 location requirements include Video Relay Service (VRS), IP Relay, and IPl Captioned Telephone Service (IP CTS). The rules for non-fixed TRS devices require provision of automated dispatchable location with each 911 call if it is technically feasible. If providing automated dispatchable location with a 911 call from a non-fixed device is not feasible, the rules allow provision of Registered Location information or alternative location information. For TRS, alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. Fixed VRS, IP Relay, and IP CTS are not capable of being used from more than one location. Non-fixed VRS, IP Relay, and IP CTS, which may also be described as "nomadic" or "mobile," are capable of being used from more than one location. Fixed VRS, IP Relay, and IP CTS must provide automated dispatchable location with all 911 calls. Non-fixed VRS, IP Relay, and IP CTS must provide automated dispatchable location, if technically feasible.
WHAT YOU NEED TO KNOW	
GENERAL	On August 1, 2019, the FCC adopted dispatchable location requirements for Internet-based TRS, paralleling the requirements it proposed for VoIP, (i.e., allowing Internet-based TRS providers flexibility to implement automatic dispatchable location and to fall back to Registered Location options when real-time dispatchable location is not feasible).
TTY/TRS PROVIDERS	Teletypewriter (TTY)-based TRS providers must use a system for incoming emergency calls that, at a minimum, automatically and immediately transfers the caller to an appropriate PSAP/ECC. An appropriate PSAP/ECC is either a PSAP/ECC that the caller would have reached if the caller had dialed 911 directly, or a PSAP/ECC that is capable of enabling the dispatch of emergency services to the caller's location in an expeditious manner.

INTERNET-BASED TRS	Each provider of Internet-based TRS shall: • When responsible for placing or routing voice calls to the PSTN, accept and handle emergency calls and access, either directly or via a third party, use a commercially available database that will allow the provider to determine an appropriate PSAP/ECC, that corresponds to the caller's location, and to relay the call to that entity; • Implement a system that ensures that the provider answers an incoming emergency call before other non-emergency calls (i.e., prioritize emergency calls and move them to the top of the queue); • Provide 911 and E911 access; • Deliver to the PSAP/ECC, at the beginning of the outbound leg of an emergency call, at a minimum, the name of the relay (TRS) user and location of the emergency, as well as the name of the relay provider, the communications assistant's (CA's) callback number, and the CA's identification number, enabling the PSAP/ECC to re-establish contact with the CA in the event the call is disconnected; • In the event one or both legs of an emergency call are disconnected (i.e., either the call between the TRS user and the CA, or the outbound voice telephone call between the CA and the PSAP/ECC), immediately re-establish contact with the TRS user and/or the appropriate PSAP/ECC, and resume handling the call; and • Ensure that information obtained is limited to that needed to facilitate 911 services, is made available only to emergency call handlers and emergency response or law enforcement personnel, and is used for the sole purpose of ascertaining a user's location in an emergency situation or for other emergency or law enforcement purposes.
SERVICE LEVEL OBLIGATION	If a PSAP/ECC is not capable of receiving and processing either ANI or location information, a VRS or IP Relay provider is not required to provide ANI or location information. However, the obligation of a VRS or IP Relay provider to transmit (via the wireline E911 network) all 911 calls to the PSAP/ECC that serves the caller's Registered Location and that has been designated for telecommunications carriers remains.
REGISTERED LOCATION FOR VRS & IP RELAY	VRS and IP Relay providers must: • Obtain from each Registered Internet-based TRS user, prior to the initiation of service, the physical location at which the service will first be used; and • If the VRS or IP Relay is capable of being used from more than one location, provide their registered Internet-based TRS users one or more methods of updating the user's Registered Location, including at least one option that requires use only of the TRS access technology necessary to access the VRS or IP Relay. Any method used must allow a registered Internet-based TRS user to update the Registered Location at any time and in a timely manner.

E911 FOR VRS & IP RELAY	The following requirements are applicable to providers of VRS or IP Relay. These requirements apply only to 911 calls placed by registered users whose dispatchable location is in a geographic area served by a wireline E911 network and is available to the provider handling the call. VRS or IP Relay providers must, as a condition of providing service to a user: • Provide that user with E911 service; • Request, at the beginning of each emergency call, the caller's name and dispatchable location, unless the VRS or IP Relay provider already has, or has access to the location information; • Transmit the following to the PSAP/ECC that serves the caller's dispatchable location and that has been designated for telecommunications carriers: (A) All 911 calls, (“all 911 calls” is defined as “any communication initiated by an VRS or IP Relay user dialing 911”) (B) ANI, the name of the VRS or IP Relay provider, and the CA's identification number for each call; and (C) The location information. • Route all 911 calls through the use of ANI or pANI, via the dedicated wireline E911 network, provided that nothing precludes routing the call first to a call center to ascertain the caller's location in the event that the VRS or IP Relay provider is unable to obtain or confirm the caller's location information; and • Make the location information, the name of the VRS or IP Relay provider, and the CA's identification number available to the appropriate PSAP/ECC from or through the appropriate ALI database.

IP CAPTION TELEPHONE SERVICE (IP CTS)	IP CTS and relay services such as VRS and IP Relay are distinctly different. **Fixed IP CTS**: A TRS that permits an individual who can speak but who has difficulty hearing over the telephone to use a telephone and an IP-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 PSTN. **Non-fixed IP CTS:** By January 6, 2022: • Providers of non-fixed IP CTS must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirements below, or they must route the caller to a call center. • The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in 47 CFR § 9.3 of the rules) at which the service will first be used; and • The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the non-fixed IP CTS. Any method used must allow an end user to update the Registered Location at will and in a timely manner.

LOCATION REQUIREMENTS for VRS IP RELAY	To meet E911 service requirements, VRS and IP Relay providers must provide location information with each 911 call as follows: • **Fixed VRS and IP Relay services:** Providers of fixed VRS and IP Relay services must provide automated dispatchable location with each 911 call. • **Non-fixed VRS and IP Relay services:** For non-fixed VRS and IP Relay services, (service that is capable of being used from more than one location), VRS and IP Relay service providers must provide location information in accordance with paragraph (d)(4)(A) if technically feasible. Otherwise, VRS and IP Relay service providers must either provide location information in accordance with paragraph (d)(4)(ii)(B) or (C), or meet paragraph (d)(4)(ii)(D). (A) Provide automated dispatchable location, if technically feasible. (B) Provide Registered Location information that meets the following requirements: • The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in 47 CFR § 9.3) at which the service will first be used; • The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the VRS or IP Relay. Any method used must allow an end user to update the Registered Location at will and in a timely manner; and • If the VRS or IP Relay is capable of being used from more than one location, if it is not possible to automatically determine the Registered Internet-based TRS user's location at the time of the initiation of an emergency call, verify the current location with the user at the beginning of an emergency call. (C) Provide alternative location information as defined in 47 CFR § 9.3. (D) Route the caller to a PSAP/ECC.
TIMELINES	On or after January 6, 2021, for fixed services, and on or after January 6, 2022, for non-fixed services.
ALTERNATIVE LOCATION INFORMATION	**Fixed devices:** The FCC also clarified that the rules do not require TRS providers to automatically detect when a device is being used at a different location from the Registered Location to the extent doing so is not technically feasible. **Non-fixed devices:** Alternative location information must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. Alternative location information may be coordinate-based. Under some circumstances, these services also may provide the caller's Registered Location.

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	By January 6, 2021: Providers of non-fixed VRS and IP Relay must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirement. As a last resort, providers also may route the caller to a call center, as long as the provider has made a good-faith effort to obtain location data from all available alternative location sources. By January 6, 2021: Providers of fixed VRS, IP Relay, and IIP CTS must provide automated dispatchable location with each 911 call.	
☐	2	Prior to the initiation of service for Registered Location, the service provider must obtain from the customer the Registered Location at which the service will first be used. The service provider must provide for end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the VRS or IP Relay. Any method used must allow an end user to update the Registered Location at will and in a timely manner.	
☐	3	By January 6, 2022: If the VRS or IP Relay is capable of being used from more than one location and it is not possible to automatically determine the user's location at the time of the initiation of an emergency call, the service provider must verify the current location with the user at the beginning of an emergency call.	

☐	**4**	By January 6, 2022: Providers of non-fixed IP CTS must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirements or they must route the caller to a call center.	

☐	**5**	By January 6, 2022, Registered Location options for IP CTS: The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in 47 CFR § 9.3 of the rules) at which the service will first be used; and The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the IP CTS. Any method used must allow an end user to update the Registered Location at will and in a timely manner.	

COMPLAINTS

Consumers
Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points
PSAPs, also known as ECCs, 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

NEED MORE INFORMATION?

TRS - 47 CFR § 9.13, 9.14

FCC TRS Rules

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

Report and Order (FCC 19-76)

NOTES
This timeline does not reference all the relevant rules, does not include the full text of the rules, and does not replace or supersede the rules. Although the FCC has attempted to cover all parts of the rules that might be relevant, the coverage may not be exhaustive, and the timeline may not anticipate all situations in which the rules apply. The timeline represents the FCC's interpretation of the rules and is not legally binding on the FCC. The FCC retains the discretion to adopt case-by-case approaches, where appropriate, that may differ from the approach in the timeline. Any decision regarding a particular regulated entity will be based on the statutes and any relevant rules. WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

This informational guidance has been developed to assist in relaying general information and increase understanding related to dispatchable location. The reader is advised, however, that the FCC is the definitive and official authority on compliance and requirements.

DISPATCHABLE LOCATION RULES FOR CMRS PROVIDERS	
OVERVIEW	This tab contains additional information regarding the FCC's established compliance deadlines for commercial mobile radio service (CMRS) providers. CMRS providers must provide either dispatchable location or z-axis technology in compliance with the adopted z-axis accuracy metric. This requirement allows wireless carriers to provide either dispatchable location or x/y/z coordinate-based location information for indoor wireless 911 calls. Where available to the CMRS provider, floor level information must be provided in addition to z-axis location information. CMRS providers that deploy z-axis technology must also comply with the compliance certification and call data reporting requirements.
WHAT YOU NEED TO KNOW	
GENERAL	The following requirements are only applicable to CMRS providers, excluding mobile satellite service (MSS) operators, to the extent that they: (1) Offer real-time, two-way switched voice service that is interconnected with the public switched network; and (2) Use an in-network switching facility that enables the provider to reuse frequencies and accomplish seamless hand-offs of subscriber calls. These requirements are applicable to entities that offer voice service to consumers by purchasing airtime or capacity at wholesale rates from CMRS licensees.
LOCATION ACCURACY	CMRS providers are subject to separate location accuracy requirements and benchmarks. Information on wireless 911 location accuracy requirements can be accessed here: Wireless Location Accuracy Benchmarks
BASIC 911 SERVICE	CMRS providers must transmit all wireless 911 calls without respect to their call validation process to a PSAP/ECC, provided that “all wireless 911 calls” is defined as “any call initiated by a wireless user dialing 911 on a phone using a compliant radio frequency protocol of the serving carrier.” 47 C.F.R § 20.18(b).

CMRS DEFINITION	**Interconnection or Interconnected.** 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. **Interconnected Service:** (1) 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.See §9.9 Definitions at the following link: 911 Requirements - 47 CFR-PART 9
TEXT ACCESS to 911	CMRS providers must be capable of transmitting 911 calls from individuals with speech or hearing disabilities through means other than mobile radio handsets, such as through the use of text telephone devices (TTY). See § 9.10 link below. CMRS providers that provide voice communications over IP facilities are not required to support 911 access via TTYs if they provide 911 access via RTT communications, in accordance with 47 CFR Part 67, except that RTT support is not required to the extent that it is not achievable for a particular manufacturer to support RTT on the provider's network. 47 CFR Part 67

√	ITEM	CHECKLIST	COMMENTS/NOTES
☐	1	By April 3, 2021: In each of the top 25 cellular market areas (CMAs), nationwide CMRS providers shall deploy either dispatchable location, or z-axis technology in compliance with the following z-axis accuracy metric: Within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device. CMRS providers must deliver z-axis information in Height Above Ellipsoid. Where available to the CMRS provider, floor level information must be provided, in addition to z-axis location information. CMRS providers that deploy z-axis technology must also comply with the compliance certification and call data reporting requirements. All providers must achieve 50-meter horizontal accuracy or provide dispatchable location for 80% of all wireless 911 calls. (47 CFR § 9.10(i)(2)(i)(A))	
☐	2	In each CMA where z-axis technology is used: nationwide CMRS providers must deploy z-axis technology to cover 80% of the CMA population.	
☐	3	By April 3, 2022: Non-nationwide providers that serve any of the top 25 CMAs must provide either (a) dispatchable location, or (b) vertical (z-axis) location information in compliance with the FCC-approved metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device in those CMAs. If dispatchable location is used, there must be a density of reference points distributed throughout the CMA equivalent to 25% of the population in that CMA. If vertical location technology is used, it must be deployed to cover 80% of the CMA population. (47 CFR § 9.10(i)(2)(ii)(E))	

☐	**4**	By April 3, 2023: In each of the top 50 CMAs, nationwide CMRS providers shall deploy either dispatchable location, or z-axis technology in compliance with the following z-axis accuracy metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device. CMRS providers must deliver z-axis information in Height Above Ellipsoid. Where available to the CMRS provider, floor level information must be provided, in addition to z-axis location information. CMRS providers that deploy z-axis technology must also comply with the compliance certification and call data reporting requirements of: (1) Dispatchable location or; (2) Such z-axis technology in compliance with any z-axis accuracy metric that has been approved by the FCC.	
☐	**5**	By April 3, 2024: Non-nationwide providers that serve any of the top 50 CMAs must deliver either (a) dispatchable location, or (b) vertical (z-axis) location information, in compliance with the FCC-approved metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device in those CMAs. If dispatchable location is used, there must be a density of reference points equivalent to 25% of the population in that market area. If vertical location technology is used, it must be deployed to cover 80% of the CMA population (47 CFR § 9.10(i)(2)(ii)(E)).	
☐	**6**	By April 3, 2026, Non-nationwide CMRS providers have to comply with the privacy and security certification, confidence and uncertainty data, and live call data provisions in the rules. The existing rules already require non-nationwide CMRS providers to comply with these requirements in the horizontal location accuracy context.	

☐	**7**	Non-nationwide CMRS providers that serve any of the top 25 or 50 CMAs will have an additional year to meet each benchmark.	

☐	**8**	Within 60 days after each benchmark date specified, CMRS providers must certify that they are in compliance with the location accuracy requirements applicable to them as of that date. CMRS providers shall be presumed to be in compliance by certifying that they have complied with the test bed and live call data provisions described. Dispatchable location use certification. Prior to use of dispatchable location information to meet the FCC's 911 horizontal and indoor location accuracy requirements in paragraphs (i)(2)(i) and (ii), CMRS providers must certify that neither they nor any third party they rely on to obtain dispatchable location information will use dispatchable location information or associated data for any non-911 purpose, except with prior express consent or as otherwise required by law. The certification must state that CMRS providers and any third party they rely on to obtain dispatchable location information will implement measures sufficient to safeguard the privacy and security of dispatchable location information.	

COMPLAINTS

Consumers
Consumers may file a complaint via the Consumer Complaint Center.

Consumer Complaint Center

Public Safety Answering Points
PSAPs, also known as ECCs, 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

NEED MORE INFORMATION?

CMRS - 47 CFR § 9.10

NOTES
Non-nationwide CMRS providers that serve any of the top 25 or 50 CMAs will have an additional year to meet each benchmark. WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

This informational guidance has been developed to assist in relaying general information and increase understanding related to dispatchable location. The reader is advised, however, that the FCC is the definitive and official authority on compliance and requirements.

OVERVIEW

This tab contains additional information regarding the rules establishing different compliance deadlines for dispatchable location requirements and fixed telephony compliance deadlines.

Some of the rules implementing RAY BAUM'S Act contain information collection requirements that have been approved by the Office of Management and Budget (OMB).

To help regulated entities comply with the rules, the Public Safety and Homeland Security Bureau provides a summary timeline of compliance deadlines for these requirements.

WHAT YOU NEED TO KNOW

Different compliance deadlines apply depending on the device calling 911. Refer to the FCC website for compliance requirements and deadlines.

MLTS COMPLIANCE DATES

Fixed and Non-fixed Devices

2021

Jan. 6, 2021: Providers of fixed telephony service must provide automated dispatchable location with 911 calls.

MLTS 911 calls from non-fixed devices: On-premises MLTS 911 calls from non-fixed devices
Two 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) registered location information, or dispatchable location based on end-user manual update, or
(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: Two 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, 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.

Interconnected VoIP Compliance Dates

2020

Jan. 6, 2020: Interconnected VoIP service providers (excluding outbound-only interconnected VoIP service providers) have the option of meeting the customer notification requirement at section 9.11(a)(5)(iii) of the rules by notifying existing subscribers, and each new subscriber prior to the initiation of that subscriber's service, by conspicuous means other than warning stickers or labels if E911 service may be limited or not available. (47 CFR § 9.11(a)(5)(iii)(B).)

2021

Jan. 6, 2021: Providers of fixed interconnected VoIP services must provide automated dispatchable location with each 911 call. (47 CFR § 9.11(b)(4)(i).)

2022

Jan. 6, 2022: Providers of non-fixed interconnected VoIP services and providers of all outbound-only interconnected VoIP services must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirements below. As a last resort, providers also may route the caller to a national emergency call center, as long as the provider has made a good-faith effort to obtain location data from all available alternative location sources. (47 CFR § 9.11(b)(4)(ii); see also August 1, 2019 Report and Order 19-76 at paras.182)

Registered Location: The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in section 9.3 of the rules) at which the service will first be used;

The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the customer premises equipment (CPE) necessary to access the interconnected VoIP service. Any method used must allow an end user to update the Registered Location at will and in a timely manner; and

The service provider must identify whether the service is being used to call 911 from a different location than the Registered Location and, if so, either: (i) prompt the customer to provide a new Registered Location; or (ii) update the Registered Location without requiring additional action by the customer. (47 CFR § 9.11(b)(4)(ii)(B).)

Alternative location: Alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. (47 CFR §§ 9.11(b)(4)(ii)(C) and 9.3)

In addition to providing the location information above, providers of outbound-only interconnected VoIP must comply with all other 911 rules for interconnected VoIP providers as stated in section 9.11(b) of the rules.(47 CFR § 9.11(b).)

Mobile Text Compliance Date

2022

Jan. 6, 2022: Covered text providers must provide automated dispatchable location with all 911 text messages routed to a PSAP if technically feasible; otherwise they must provide either end-user manual provision of location information, or enhanced location information that meets the requirements below.

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).)

TRS Compliance Dates

2021

Jan. 6, 2021: VRS, IP Relay, and IP CTS must provide automated dispatchable location with each 911 call. (47 CFR §§ 9.14(d)(4)(i) and 9.14(e)(4)(i).)

2022

Jan. 6, 2022: Providers of non-fixed VRS and IP Relay must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirements below. As a last resort, providers also may route the caller to a call center, as long as the provider has made a good-faith effort to obtain location data from all available alternative location sources. (47 CFR § 9.14(d)(4)(ii); see also Report and Order at para. 215.)

Registered Location: The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in 47 CFR § 9.3 of the rules) at which the service will first be used;

The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the VRS or IP Relay. Any method used must allow an end user to update the Registered Location at will and in a timely manner; and

If the VRS or IP Relay is capable of being used from more than one location and it is not possible to automatically determine the user's location at the time of the initiation of an emergency call, the service provider must verify the current location with the user at the beginning of an emergency call. (47 CFR § 9.14(d)(4)(ii)(B).)

Alternative Location: Alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. (47 CFR §§ 9.14(d)(4)(ii)(C) and 9.3)

Providers of non-fixed IP CTS must provide automated dispatchable location if technically feasible. Otherwise, they must provide either Registered Location information or alternative location information that meets the requirements below, or they must route the caller to a call center. (47 CFR § 9.14(e)(4)(ii).)

Registered Location option for IP CTS: The service provider has obtained from the customer, prior to the initiation of service, the Registered Location (as defined in 47 CFR § 9.3 of the rules) at which the service will first be used; and

The service provider has provided end users one or more methods of updating their Registered Location, including at least one option that requires use only of the Internet-based TRS access technology necessary to access the IP CTS. Any method used must allow an end user to update the Registered Location at will and in a timely manner. (47 CFR § 9.14(e)(4)(ii)(B).)

Alternative Location option for IP CTS: Alternative location information may be coordinate-based, and it must be sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings. (47 CFR §§ 9.14(e)(4)(ii)(C) and 9.3.)

CMRS Compliance Dates

2021

April 3, 2021: CMRS providers must deliver z-axis information in Height Above Ellipsoid. Where available to the CMRS provider, floor level information must be provided in addition to z-axis location information. (47 CFR § 9.10(i)(2)(ii)(C))

All CMRS providers must achieve 50-meter horizontal accuracy or provide dispatchable location for 80% of all wireless 911 calls. (47 CFR § 9.10(i)(2)(i)(A))

2022

April 3, 2022: Non-nationwide CMRS providers that serve any of the top 25 CMAs must provide either (a) dispatchable location, or (b) vertical (z-axis) location information in compliance with the FCC-approved metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device in those CMAs.

If dispatchable location is used, there must be a density of reference points distributed throughout the CMA equivalent to 25% of the population in that CMA. If vertical location technology is used, it must be deployed to cover 80% of the CMA population. (47 CFR § 9.10(i)(2)(ii)(E))

2023

April 3, 2023: In each of the top 50 CMAs, nationwide CMRS providers shall deploy either dispatchable location, or z-axis technology in compliance with the following z-axis accuracy metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device. CMRS providers must deliver z-axis information in Height Above Ellipsoid. Where available to the CMRS provider, floor level information must be provided in addition to z-axis location information. CMRS providers that deploy z-axis technology must also comply with the compliance certification and call data reporting requirements.

(1) Dispatchable location or;
(2) Such z-axis technology in compliance with any z-axis accuracy metric that has been approved by the FCC.

2024

April 3, 2024: Non-nationwide CMRS providers that serve any of the top 50 CMAs must deliver either (a) dispatchable location, or (b) vertical (z-axis) location information, in compliance with the FCC-approved metric of within three meters above or below (plus or minus) the handset for 80% of wireless E911 calls made from the z-axis capable device, in those CMAs. If dispatchable location is used, there must be a density of reference points equivalent to 25% of the population in that market area. If vertical location technology is used, it must be deployed to cover 80% of the CMA population. (47 CFR § 9.10(i)(2)(ii)(E)).

2026

April 3, 2026: Non-nationwide CMRS providers have until April 3, 2026, to comply with the privacy and security certification, confidence and uncertainty data, and live call data provisions in the rules. The existing rules already require non-nationwide CMRS providers to comply with these requirements in the horizontal location accuracy context.

NEED MORE INFORMATION?
911 Requirements - 47 CFR-PART 9
MLTS Frequently Asked Questions
Fixed telephony – 47 C.F.R. § 9.8
Mobile text – 47 C.F.R. § 9.10(q)
Interconnected VoIP – 47 C.F.R. §§ 9.11, 9.12
TRS – 47 C.F.R. §§ 9.13, 9.14
MLTS – 47 C.F.R. §§ 9.15, 9.16, 9.17
Fifth Report and Order PS Docket No. 07-114

NOTES: RAY BAUM'S Act compliance date (dispatchable location) rules are forward-looking and do not apply with respect to any system that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed on or before February 16, 2020.

WARNING: Please be advised that this document has been set to 100% view. Viewing this document in less or more than 100% view will result in hidden content from the viewing range.

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. (*NENA Master Glossary of 9-1-1 Terminology*)
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. (*NENA Master Glossary of 9-1-1 Terminology*)

TERMS & ACRONYMS	
Term or Acronym	**Definition**
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. *(FCC Telecommunications Relay Service, 47, Part 64, Subpart F, Definitions)*
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. *(47 C.F.R. § 9.3)*
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))*

TERMS & ACRONYMS

Term or Acronym	Definition
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. *(FCC FAQs, 911 Direct Dialing, Notification, and Dispatchable Location Requirements for Multi-line Telephone Systems)*
Emergency Communications Center (ECC). See also Public Safety Answering Point (PSAP)	A facility that subscribers of satellite commercial mobile radio services (CMRS) call when in need of emergency assistance by dialing “911” on their mobile earth station terminals. A facility that is designated to receive requestsfor emergency assistance, including but not limited to 911 calls, and staffed to perform one or more of the following functions: • Determine the location where an emergency response is being requested. • Interrogate callers to identify, assess, prioritize, and classify requests for emergency assistance and other gathered information. • Determine the appropriate emergency response required. • Assess the available emergency response resources that are, or will be, available in the time required. • Dispatch appropriate emergency response providers. • Transfer or exchange requests for emergency assistance and other gathered information with other emergency communications centers and emergency response providers. • Analyze and respond to communications received from emergency response providers and coordinate appropriate actions. • Support incident command functions. (*NENA Master Glossary of 9-1-1 Terminology*)
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)* .

TERMS & ACRONYMS

Term or Acronym	Definition
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. (*NENA Master Glossary of 9-1-1 Terminology*)
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. *(NENA Master Glossary of 9-1-1 Terminology)*
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. (*NENA Master Glossary of 9-1-1 Terminology*)
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. (*NENA Master Glossary of 9-1-1 Terminology*)

TERMS & ACRONYMS	
Term or Acronym	**Definition**
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*)
Interconnected Service	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. *(47 CFR § 9.3)*
Interconnection or Interconnected	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)*
Interconnected VoIP	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. *(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)*

TERMS & ACRONYMS	
Term or Acronym	**Definition**
Internet Protocol (IP) Captioned Telephone Service	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. *(47 CFR § 9.3)*
Internet Protocol Relay Service (IP Relay)	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)*
Integrated Services Digital Network (ISDN)	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. (*NENA Master Glossary of 9-1-1 Terminology*)
Memorandum of Understanding (MOU)	A document that expresses mutual accord on an issue between two or more parties. *(NENA Master Glossary of 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. (*www.nena.org)*

TERMS & ACRONYMS

Term or Acronym	Definition
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. *(NENA Master Glossary of 9-1-1 Terminology)*
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. (*NENA Master Glossary of 9-1-1 Terminology*)
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. *(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.)*
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. *(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.)*
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)*

TERMS & ACRONYMS	
Term or Acronym	**Definition**
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.*(National 911 Program National 911 Progress Report, November 2019. Retrieved from 911.gov: 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)*

TERMS & ACRONYMS

Term or Acronym	Definition
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. (*NENA Master Glossary of 9-1-1 Terminology*)
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". (N*ENA 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). (*NENA Master Glossary of 9-1-1 Terminology*)
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. (*NENA Master Glossary of 9-1-1 Terminology*)

TERMS & ACRONYMS	
Term or Acronym	**Definition**
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.” *(47 C.F.R. § 9.3)*
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. *(NENA Master Glossary of 9-1-1 Terminology)*
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
The following references are provided for access to relevant informational documents and other support materials that might be useful.
CMRS CMRS - 47 CFR § 9.10
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
FCC Sixth Report and Order on Reconsideration (20-98) Sixth Report and Order on Reconsideration PS Docket No. 07-114

REFERENCES
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 Mobile Text - 47 CFR § 9.10(q)
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 TRS - 47 CFR § 9.13, 9.14