

560 CMR 4.00: REGULATIONS GOVERNING ENHANCED 911 SERVICE FOR MULTI-LINE TELEPHONE SYSTEMS

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4.01 : Purpose

The purpose of 560 CMR 4.00 is to establish regulations to carry out the provisions of M.G.L. c. 6A, §18J to require that, beginning July 1, 2009, any new or substantially renovated multi-line telephone system shall provide the same level of enhanced 911 service that is provided to others in the commonwealth.

4.02 : Scope and Applicability

560 CMR 4.00 applies to all new or substantially renovated multi-line telephone systems beginning July 1, 2009.

4.03 : Definitions

Automatic Location Identification or ALI. An enhanced 911 service capability that allows for the automatic display of information relating to the geographical location of the communication device used to place a 911 call.

ALI Database. The set of ALI records residing on a computer system.

Automatic Number Identification or ANI. An enhanced 911 service capability that allows for the automatic display of a telephone number used to place or route a 911 call.

Call Back Number. A number used by a PSAP to contact the location from which the 911 call was placed. This number shall allow a call from the PSAP to reach the station used to originate the 911 call, or the number of a switchboard operator, attendant, or other designated on-site individual with the ability to direct emergency responders to the 911 caller's location 24 hours per day, seven days per week, 365 days per year.

Centrex. A system that is central office based and has feature characteristics similar to a private branch exchange.

Common Area. An open area on the inside or the outside of a building or structure that typically does not have a suite or room name or number but that might be known by a common name, such as "Lobby", "Library", "Break Room", *etc.*

Commonwealth. The Commonwealth of Massachusetts.

Configured. 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.

Department. The state 911 Department.

Device. A stationary or mobile mechanical or electronic device with the capability to initiate a 911 call.

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Direct Inward Dialing. The ability for an outside caller to be connected directly to an internal telephone extension without having to pass through a switchboard operator or attendant.

Dispatchable Location Information. The location delivered to the PSAP with a 911 call that consists of the validated Location Database (LDB) street address of the calling party, plus additional location information such as: building name or number (if more than one building shares the same street address), floor number (if more than one floor), suite name or number, apartment name or number, and room name or number or similar location information necessary to adequately identify the location of the calling device. ERL Identifiers and Unit Identifiers are forms of dispatchable location information. For devices located in sleeping and/or living quarters, dispatchable location information shall include a room name or number.

Emergency Response Location or ERL. A location, associated with one or more ANIs, established to provide a specific destination and search area for first responders.

Emergency Response Location or ERL Identifier. A form of Dispatchable Location Information in addition to ALI that is associated with one or more devices which share a location lacking distinct room numbers or names. Examples would include: "Lobby", "Shipping & Receiving" or "Warehouse NE Corner," *etc.*

End User. A person who uses communication services.

Enhanced 911 Service. A service consisting of communication network, database and equipment features provided for subscribers or end users of communication services enabling such subscribers or end users to reach a PSAP by dialing the digits 911, or by other means approved by the Department, that directs calls to appropriate PSAPs based on selective routing and provides the capability for automatic number identification and automatic location identification.

Enhanced 911 Network Features. The components of enhanced 911 service that provide selective routing, automatic number identification and automatic location identification.

Hybrid Key Telephone System. A type of multi-line telephone system designed to provide both manual and pooled access to outside lines.

Improvement 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.

Internet Protocol (IP). The method by which data is sent from one computer to another on the Internet or other networks.

Key Telephone System. A type of multi-line telephone system designed to provide manual direct selection of lines for outgoing calls through keys offering identified access lines.

Location Database (LDB). The NG911 Location Database. It contains the Master Address Database (MAD), ESZ Polygons, and Orthographic data.

Multi-line Telephone System. 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 FCC under 47 CFR Part 68), and the full range of networked communications systems that serve enterprises, including circuit-switched and IP-based enterprise systems, as well as cloud-based IP technology and over-the-top applications. Systems owned or leased by governmental agencies and nonprofit entities, as well as for-profit businesses are all included in Multi-line Telephone System.

Network Components. Any software or hardware for a control switch, other switch modification, trunking or any components of a computer storage system or database used for selective routing of 911 calls, automatic number identification and automatic location identification including a PSAP.

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Next Generation 9-1-1 (NG 9-1-1). An enhanced 911 system that incorporates the handling of all 911 calls and messages, including those using IP-enabled services or other advanced communications technologies in the infrastructure of the 911 system itself.

On-premises. 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.

Person. A person engaged in the business of managing an MLTS means 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.

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.

Person Engaged in the Business of Manufacturing, Importing, Selling, or Leasing an MLTS. Any person that manufactures, imports, sells, or leases (as lessor) an MLTS.

Person Engaged in the Business of Operating an MLTS. A person responsible for the day to day operations of the MLTS.

Pre-configured. 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.

Primary Public Safety Answering Point or Primary PSAP. A facility equipped with ANI and ALI displays, and is the first point of reception of a 911 call. It serves the municipality in which it is located, and other cities and towns as may be determined by the Department.

Private Branch Exchange or PBX. A private telephone switch that is connected to the public switched telephone network.

Private Switch Automatic Location Identification or PSALI. A service option that provides enhanced 911 service features for multi-line telephone systems.

Public Safety Answering Point or PSAP. A facility assigned the responsibility of receiving 911 calls and, as appropriate, directly dispatching emergency response services or transferring or relaying emergency 911 calls to other public or private safety agencies or other PSAPs.

Public Switched Telephone Network. The network of equipment, lines, and controls assembled to establish communication paths between calling and called parties in North America.

Regional PSAP. A PSAP that is operated by or on behalf of two or more municipalities of the commonwealth as a Primary PSAP for, at a minimum, the inter-municipal operation of enhanced 911 call taking and call transfer activities. Such facility may also be engaged in, pursuant to inter-municipal agreements in force, the dispatching, or control of public safety resources serving several jurisdictions.

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Station. A specific telephone station on a multi-line telephone system.

Subscriber. A person who uses communication services.

Substantially Renovated.

- (a) having the increased capacity of incoming lines or stations of a multi-line telephone system by more than 50% of its previous capacity on or after July 1, 2009, regardless of whether the increased capacity results from one action or from multiple actions, or a series of or combination of actions that occur over time and that, taken together, result in an increased capacity of incoming lines or workstations by more than 50% of its capacity as existed at the time of the first such action taken on or after July 1, 2009; or
- (b) having all or substantially all of the hardware, structural, or operating components of a multi-line telephone system upgraded, rehabilitated, altered, or replaced on or after July 1, 2009.

Unit. A room name or number, unit name or number, or equivalent designation of a portion of a structure or building. For buildings or structures used, rented, occupied or hired out for sleeping or residential purposes or containing living quarters, a unit identifier means a room name or number or unit name or number.

Unit Identifier. A form of dispatchable location information in addition to ALI that is associated with a location having a distinct room number or name or similar designation. For devices located in sleeping rooms or living quarters, the required dispatchable location information shall include a room number or name.

VoIP or Voice Over Internet Protocol. A type of internet protocol-enabled service that allows for the two-way real time transmission of voice communications and has access to the public switched network.

4.04 : Standards Governing Multi-line Telephone Systems

Beginning July 1, 2009, all new or substantially renovated multi-line telephone systems and multi-line telephone system operators shall provide to end users or subscribers the same level of enhanced 911 service that is provided to other end users or subscribers in the commonwealth. The service shall include, but not be limited to:

- (a) ALI and ANI that meets, at a minimum, the applicable standards as defined in 560 CMR 4.00;
- (b) a call back number as defined in 560 CMR 4.00; and
- (c) dispatchable location information as defined in 560 CMR 4.00.

For structures or buildings located in the commonwealth, such information shall be transmitted to the appropriate jurisdictional PSAP. A person engaged in owning, managing, configuring or operating a multi-line telephone system that provides outbound dialing capability or access shall configure the system to allow a person initiating a 9-1-1 call on the system to directly access 9-1-1 service by dialing in order the digits 9, 1, and 1 without an additional code, digit, prefix, postfix, or trunk-access code. All non-compliant devices that provide outbound dialing capacity or access must have immediately adjacent to, and optionally on, the device an instructional sticker instructing the user how to access 9-1-1 service. The instructional sticker must be printed in at least 12-point boldface type, in a contrasting color using a font that is easily readable, and is written in English and Spanish.

4.05 : ALI Database Maintenance

Each operator of a multi-line telephone system shall update the ALI Database, through the local municipal coordinator, database liaison or PSALI provider or comparable provider, to update the NG911 equivalent of the ALI Database that is known as the Location Database (LDB). Each time a fixed device is moved from its location to another, the operator shall notify the local municipal coordinator, database liaison or PSALI provider or comparable provider, who shall then update the LDB as soon as practicable for new multi-line telephone systems or within

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one business day following completion of the relocation of an existing multi-line telephone system device. To the extent that the operator of a multi-line telephone system assigns the direct inward dialing number of the station or ERL as the ALI Database record indicator, updates to the ALI Database shall match the direct inward dialing number ALI Database record indicator. The updates shall provide valid address and callback information for such multi-line telephone system.

4.06 : Recordkeeping and Enforcement

Each operator of a multi-line telephone system shall maintain, and shall make available to the Department for inspection, its books and records in a manner that will permit the Department to determine compliance with the provisions of 560 CMR 4.00.

Primary PSAPs, regional PSAPs and Regional Emergency Communications Centers (RECCs) may require the operator of a multi-line telephone system to conduct testing to confirm that such multi-line telephone system provides the same level of enhanced 911 service that is provided to others in the Commonwealth.

4.07 : Kari's Law and Ray Baum's Act (Effective February 16, 2020)

Beginning February 16, 2020, each manufacturer, seller, installer, manager or operator of a multi-line telephone system shall act in compliance with Kari's Law and Ray Baum's Act. 560 CMR 4.00 apply to:

- (a) A person engaged in the business of manufacturing, importing, selling, or leasing multi-line telephone systems;
- (b) A person engaged in the business of installing, managing, or operating multi-line telephone systems; and
- (c) Any multi-line telephone system that is manufactured, imported, offered for first sale or lease, first sold or leased, or installed after February 16, 2020. The FCC Order can be found at: <https://docs.fcc.gov/public/attachments/FCC-19-76A1.pdf>.

(1) General Obligations - Direct 911 Dialing, Notification and Dispatchable Location.

- (a) A person engaged in the business of manufacturing, importing, selling, or leasing multi-line telephone systems may not manufacture or import for use in the United States, or sell or lease or offer to sell or lease in the United States, a multi-line telephone system, unless such system is pre-configured such that, when properly installed in accordance with 560 CMR 4.07(2), a user may directly initiate a call to 911 from any station equipped with dialing facilities, without dialing any additional digit, code, prefix, or post-fix, including any trunk-access code such as the digit 9, regardless of whether the user is required to dial such a digit, code, prefix, or post-fix for other calls.
- (b) A person engaged in the business of manufacturing, importing, selling, or leasing multi-line telephone systems may not manufacture or import for use in the United States, or sell or lease or offer to sell or lease in the United States, a multi-line telephone system, unless such system has the capability, after proper installation in accordance with 560 CMR 4.07(2), of providing the dispatchable location of the caller to the PSAP with 911 calls.

(2) Obligations of Installers, Managers or Operators.

- (a) A person engaged in the business of installing, managing, or operating multi-line telephone systems may not install, manage, or operate for use in the United States such a system, unless such system is configured such that a user may directly initiate a call to 911 from any station equipped with dialing facilities, without dialing any additional digit, code, prefix, or post-fix, including any trunk-access code such as the digit 9, regardless of whether the user is required to dial such a digit, code, prefix, or post-fix for other calls.
- (b) A person engaged in the business of installing, managing, or operating multi-line telephone systems shall, in installing, managing, or operating such a system for use in the United States, configure the system to provide MLTS notification to a central location at the facility where the system is installed or to another person or organization, regardless of location, if the system is able to be configured to provide the notification without an improvement to the hardware or software of the system. MLTS notification must meet the following requirements:

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1. MLTS notification must be initiated contemporaneously with the 911 call, provided that it is technically feasible to do so;
 2. MLTS notification must not delay the call to 911; and
 3. MLTS notification must be sent to a location where someone is likely to see or hear it.
- (c) A person engaged in the business of installing multi-line telephone systems may not install such a system in the United States, unless it is configured such that it is capable of being programmed with and conveying the dispatchable location of the caller to the PSAP with 911 calls consistent with 560 CMR 4.07(2)(c)1. through 3. A person engaged in the business of managing or operating multi-line telephone systems may not manage or operate such a system in the United States, unless it is configured such that the dispatchable location of the caller is conveyed to the PSAP with 911 calls consistent with 560 CMR 4.07(2)(c)1. through 3.
1. Dispatchable location requirements for on-premises fixed telephones associated with a multi-line telephone system. An on-premises fixed telephone associated with a multi-line telephone system shall provide automated dispatchable location no later than February 16, 2021;
 2. Dispatchable location requirements for on-premises non-fixed devices associated with a multiline telephone system. No later than February 16, 2022, an on-premises non-fixed device associated with a multi-line telephone system shall provide to the appropriate PSAP automated dispatchable location, when technically feasible; otherwise, it shall provide dispatchable location based on end user manual update, or alternative location information sufficient to identify the caller's civic address and approximate in-building location, including floor level, in large buildings; and
 3. Dispatchable location requirements for off-premises devices associated with a multi-line telephone system. No later than February 16, 2022, an off-premises device associated with a multi-line telephone system shall provide to the appropriate PSAP automatic dispatchable location, if technically feasible; otherwise, it shall provide dispatchable location based on end user manual update, or 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.

4.08: Severability

If any provision of 560 CMR 4.00, or the application thereof, is held, adjudged, or deemed invalid, such finding of invalidity shall not affect other provisions or application, and to that end the provision of 560 CMR 4.00 are severable.

REGULATORY AUTHORITY

560 CMR 4.00: M.G.L. c. 6A, § 18J; M.G.L. c. 30A.