

# Massachusetts Next Generation 9-1-1

## WIRELESS 9-1-1 CALL HANDLING PROTOCOL

For Public Safety Answering Points  
within the Commonwealth of Massachusetts  
2019



The Massachusetts State 911 Department

# WIRELESS 9-1-1 CALL HANDLING PROTOCOL

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## PURPOSE

To establish guidelines which are to serve as a protocol for efficient and effective call processing of emergency 9-1-1 wireless calls and Silent Calls for those Public Safety Answering Points (PSAPs) that receive direct wireless 9-1-1 calls.

## DEFINITIONS

***Callback*** – The process performed by a certified 9-1-1 telecommunicator to attempt to reconnect with a wireless telephone when a 9-1-1 call has been disconnected for any reason.

***Call Trace Procedure*** – The process by which a certified 9-1-1 telecommunicator may obtain subscriber information when an exigent public safety need for subscriber information from the cellular provider of record exists.

***Dispatchable Location*** – The verified or corroborated street address of the calling party plus additional information such as floor, suite, apartment or similar information that may be needed to adequately identify the location of the calling party.

***Exigent Circumstance*** – The totality of a situation that would cause a reasonable person to believe that relevant immediate action is necessary to prevent physical harm to life or prevent some other consequence that would otherwise jeopardize public safety.

***Non-service initialized Device (NSI Device)*** – A mobile device for which there is no valid service contract with any cellular provider. As such, NSI devices have no associated subscriber name and address, do not provide a call-back number, and may not provide location. Phones that are not registered for service still have the ability to contact 9-1-1.

***Open Line*** – A 9-1-1 call received by a PSAP that does not result in any productive two-way communication between the caller and certified 9-1-1 telecommunicator.

***Probable Location Circle*** – The circle displayed around geographical location (i.e. latitude and longitude) on the mapping application, which has been provided for a wireless call. The size of the circle surrounding the coordinates is in direct relation to the distance of uncertainty provided at the time a wireless call is answered or a Retransmit is performed. For example: the larger the uncertainty, the larger the circle; the smaller the uncertainty, the smaller the circle.

***Retransmit*** – The process of requesting an Automatic Location Identification (ALI) refresh or rebid through the 9-1-1 system in an attempt to obtain more accurate location information of a wireless caller.

***Silent Call*** - A 9-1-1 call received by a PSAP wherein there is an open line call, where no one is speaking or responding to the certified 9-1-1 telecommunicator's voice, and the call is not disconnected. There are a variety of reasons for silent calls, some including physical disabilities, TTY users, unsafe circumstances, medical emergencies or conditions, language barriers, or Unintentional call. If, after administering the standard 9-1-1 greeting:

- a. *The caller remains silent, or is unable to participate in productive two-way conversation with the telecommunicator, thereby presenting as an Open Line, or*
- b. *The caller makes sounds, vocalizations or noises that do not arise to two-way conversation with the telecommunicator, or*
- c. *Background noises—such as a threatening or angry conversation, difficulty breathing, whimpering, or any other sounds that indicate the caller needs emergency assistance—are present,*

***Telecommunicator*** – Any PSAP personnel certified and in compliance, according to the State 911 Department standards, for answering emergency 9-1-1 calls for service.

***Unintentional Call*** - A 9-1-1 call received by a PSAP that is determined to be accidental or inadvertent in nature after it 1) shows no immediate need for emergency services, and 2) does not indicate an emergency situation after being processed using the Silent Call procedure and thoroughly investigated by a telecommunicator, or 3) is confirmed as a misdial by the caller.

## PROTOCOL

Any incoming call delivered to a PSAP on the 9-1-1 equipment, provided by the State 9-1-1 Department shall be processed as an emergency call for service.

We recommend that the Silent Call procedure be part of the telecommunicator evaluation process.

When a wireless 9-1-1 call is received, the telecommunicator shall:

- Answer and greet the caller.
- Accept the report of the emergency incident, and take all appropriate actions regarding the reported incident.
- Process the call using emergency call handling procedures.
- Determine the dispatchable location and retransmit for updated location.
- Follow the Silent Call procedure. The Silent call procedure is indicated when, if, after administering the standard 9-1-1 greeting:
  - a. *The caller remains silent, or is unable to participate in productive two-way conversation with the telecommunicator, thereby presenting as an Open Line, or*
  - b. *The caller makes sounds, vocalizations or noises that do not arise to two-way conversation with the telecommunicator, or*
  - c. *Background noises—such as a threatening or angry conversation, difficulty breathing, whimpering, or any other sounds that indicate the caller needs emergency assistance—are present,*
- To the extent practical, ensure that the caller is provided appropriate emergency service, which may include transferring the request for assistance to another jurisdiction.
- To the extent practical, ensure that the call remains connected until such time as the nature of the call and Dispatchable Location of the caller is ascertained.

If anyone calls 9-1-1 and is unable to request emergency assistance by conventional spoken word for *ANY* reason (physical disability, domestic violence, home invasion, language barrier, medical condition, etc.) the procedures outlined herein will allow a caller to communicate using alternative measures, including the TTY equipment or the telephone's keypad as part of the Silent Call procedure. Due to the unknown circumstances of the call, procedures outlined herein will allow a caller who is unable to request emergency assistance by conventional spoken word to alternatively communicate. In compliance with Public Law 101-336, also known as the *Americans with Disabilities Act Title II Section 202*, the State 911 Department all Silent Calls must be challenged for TTY in an effort to determine if the caller is deaf, hard of hearing or has a speech impairment, and is attempting to report an emergency using a teletypewriter.

It is not uncommon for a telecommunicator to receive a wireless 9-1-1 call in which the device has been inadvertently dialed and the caller is not seeking emergency assistance. It is most important to ensure that all efforts are made to determine if a caller needs assistance. Until the procedure below is completed, all 9-1-1 calls are to be regarded as legitimate emergencies and processed in accordance with this Policy.

Details regarding the technical use of State 911 Department provided equipment are written in the Department's training manuals. It is expected that the telecommunicator has successfully attended the required training courses and will refer to the student manual for preferred actions.

## **PROCEDURE**

1. **Greet the caller:** The telecommunicator will answer the call and greet the caller with a standard greeting below: "9-1-1, this line is recorded. Where is your emergency?"
  - a. If you receive no response, the call should be considered a Silent Call and you should proceed to Step 5.
  - b. If the caller is speaking a language that is not native to the telecommunicator, the interpretive services should be conference in.
2. **Verify ANI:** The telecommunicator will verify information with the caller, as compared to the ALI displayed, to be used if the need arises for callback.
3. **Determine the Dispatchable Location:** The telecommunicator will verify address/location information provided by the caller, compared to incident tile and ALI display, to confirm the dispatchable location.
  - a. If the dispatchable location is within your PSAP jurisdiction, determine and confirm the nature of the incident with the caller, process the call using known emergency call handling procedures, and follow your PSAPs associated procedures.
  - b. If the dispatchable location is determined to be outside of your PSAP jurisdiction, proceed to Step 4.
  - c. If you are unable to verify the location, use the auto retransmits provided by the Next Generation 9-1-1 applications to best determine a possible dispatchable location.

**Automatic Retransmits for All Call Types:** Automatic Retransmits will be performed by the Next Generation 9-1-1 application every 30 seconds for all call types. This activity will occur concurrently with normal call processing. Upon receipt of a wireless 9-1-1 call for service of any class (WRLS, WPH1 or WPH2), a telecommunicator shall utilize the data provided until one or more of the following occur:

- WPH2 data is present AND the indicated location is consistent with the information provided by the caller, or
- WPH2 data is present AND the size of the Probable Location Circle decreases with subsequent Retransmits, or
- The telecommunicator is no longer in control of the call (i.e. the call has been transferred to another PSAP), or
- The call is terminated (either by the caller or the PSAP).
- Instances where only receive WRLS information after multiple rebids, should be called into the GDIT NOC 855-626-4911. This can be done after the incident has been handled.

Note: When available, RapidSOS location data will display and retransmit in the same fashion as carrier location data. When available, RapidSOS location data shall be used for further confirmation of the dispatchable location.

#### 4. **Contact Local Jurisdiction:**

- a. If after following Step 1 thru 3, the telecommunicator determines the dispatchable location for the reported emergency is outside of their PSAPs jurisdiction, the telecommunicators will transfer the call to the appropriate local Primary or Regional PSAP, RECC, or out-of-state agency of jurisdiction.
  - i. The certified telecommunicator will use preferred actions of the 9-1-1 application to connect with the local PSAP of jurisdiction.
    - To ensure the transfer of ANI/ALI information, the telecommunicator should utilize the PSAP Directory whenever possible.
    - If the wrong Directory entry is pressed, **do not** cancel the transfer using the Conference Release function. This action will generate an abandoned call at the receiving PSAP. Instead, you may initiate a second transfer to the correct PSAP at the same time. When either PSAP answers, you will need to effectively communicate which PSAP's jurisdiction the caller is in.
  - ii. Upon connection to the appropriate local PSAP of jurisdiction, the telecommunicator will identify themselves, relay the incident location and relay the nature of the incident reported by the caller.
  - iii. If the PSAP of jurisdiction is outside of Massachusetts, the telecommunicator shall, in addition to the steps in section ii, and to the extent practical, remain on the line and assist the out-of-state PSAP with Retransmits for updated location, and provide such location information to the out of state PSAP.
- b. If the Silent Call Procedure of Step 5 has been utilized, the telecommunicator should call the PSAP of jurisdiction, identify themselves, verbally relay the incident location and verbally relay the nature of the incident reported by the caller. **It is not recommended that TTY or silent calls are transferred.**

#### 5. **Silent Call Procedure:** If, after administering the standard 9-1-1 greeting, any of the following circumstances exist, the telecommunicator shall start the Silent Call Procedure:

- *The caller remains silent, or is unable to participate in productive two-way conversation with the telecommunicator, thereby presenting as an Open Line, or*
  - *The caller makes sounds, vocalizations or noises that do not arise to two-way conversation with the telecommunicator, or*
  - *Background noises—such as a threatening or angry conversation, difficulty breathing, whimpering, or any other sounds that indicate the caller needs emergency assistance—are present,*
- a. **The telecommunicator will verbally instruct the caller to:**
- “Stay on the line while I check for TTY. Do not hang up.”*

- b. The telecommunicator will then perform a TTY Challenge using the preferred actions of the 9-1-1 application. The standard 9-1-1 TTY greeting will be sent and visually appear on the 9-1-1 application. No Baudot tones (tweedle) will be heard upon sending the TTY Challenge.
    - i. If the caller attempts to communicate by using TTY, the telecommunicator shall continue TTY communications and return to Steps 1-4.
    - ii. If no TTY or verbal response is received the TTY Challenge should be sent a second time. If after a second TTY Challenge is sent, there is still no response, proceed to Step 5c.
  - c. If there is no verbal or TTY response as outline in Step 5b, the telecommunicator shall verbally advise caller:
 

*“If you need POLICE, press 1; If you need FIRE, press 2;  
If you need an AMBULANCE, press 3 “*

    - i. If a response from the caller is received, the Dual Tone Multi Frequency (DTMF) character will display with the 9-1-1 application. No audible tone will be heard.
    - ii. Based on the received response, the telecommunication shall continue with Steps 1 to 3, by asking simple yes/no questions and verbally advising the caller :
      - iii. *“Press 4 for yes; Press 5 for no; Press 6 for I don’t know”*
  - d. **If no verbal, TTY or DTMF response is received**, the call can then be considered an Open Line and proceed to Step 6.
    - i. The telecommunicator must afford the caller ample opportunity to make a positive response to the Silent Call request. Telecommunicators shall wait a minimum of five (5) seconds without receiving a response. If there is still no response, then proceed to Step 6.
  - e. If 1) background noise is heard as part of an Open Line; 2) the caller attempts to communicate verbally, or 3) the telecommunicator believes this is an exigent circumstance, the telecommunicator will remain on the line until the dispatchable location of the caller can be determined and proceed to Step 8.
6. **Attempt to Re-Contact the Caller:** Upon completing the necessary actions of Steps 1-5, the telecommunicator shall:
- a. Announce to the caller *“No response- terminating call”* and shall release the call.
  - b. The telecommunicator will immediately attempt to call back the number listed in the ANI field.
  - c. If the caller answers, the telecommunicator shall advise that a 9-1-1 call was received, and inquire if the caller needs emergency assistance.
    - i. If the caller makes any indication that there is an emergency, return to Step 1 and complete the necessary actions.
    - ii. If the caller answers and indicates that the call was an Unintentional Call or otherwise states there is no emergency, AND based on the totality of the circumstances the telecommunicator has also determined that this is a non-emergency call, the telecommunicator may release the call.
    - iii. If the caller is a child, request to speak to the an adult or responsible party. If the

adult or responsible party indicates that the call was an Unintentional Call or otherwise states there is no emergency, AND based on the totality of the circumstances the telecommunicator has also determined that this is a non-emergency call, the telecommunicator may release the call.

- d. If the caller does not answer, the telecommunicator shall leave the following message (if voicemail is available)

*“This is 9-1-1. We received a 9-1-1 call from this phone.*

*If you have an emergency, please call 9-1-1 again and state your location and emergency.”*

## **7. Determine if an exigent circumstance exists.**

- a. If the telecommunicator believes this to be an exigent circumstance continue to Step 8.
- b. If the telecommunicator does NOT believe this is an exigent circumstance and the PSAP has active 9-1-1 calls pending, which have not been answered, telecommunicators may temporarily proceed to answer calls, until such time that pending calls have been answered and processed. Once pending calls have been serviced, previous Silent Calls should be re-examined, to the extent possible, utilizing Step 8.

## **8. Initiate the Call Trace Procedure:** If, during Steps 1 – 7, a telecommunicator believes an Exigent Circumstance exists, the telecommunicator shall initiate a Call Trace. To the extent possible, a second telecommunicator may complete the Call Trace, while the first telecommunicator proceeds to step 9.

- a. Call the appropriate carrier to request the subscriber billing information and, if necessary, an active “ping” of the device.
  - i. The carrier/Telco ID, and contact information received on the ALI Display may be contacted. This is the carrier that delivered the call, and may NOT be the subscriber’s cellular carrier.
    - Contact information for many carriers can be found under the Special Services Directory of the 9-1-1 application.
  - ii. If the carrier is unknown, the PSAP may contact the Number Portability Administration Center (NPAC) through the FCC’s Local Number Portability Administrator (LNPA).<sup>1</sup>
- b. The procedure for obtaining tower or subscriber information differs for each wireless carrier. Carriers may require a written documentation to accompany the request. However, not all wireless carriers require this documentation. Please follow the policies of the carrier as advised.
- c. The subscriber information provided by the cellular carrier when contacted [including name, billing address, alternate phone number(s), and cellular carrier name] may be added to the record of the call using the notes feature. Information entered is associated with that call and may not apply to future calls.
- d. Call trace data located within notes of the 9-1-1 applications is pertinent to the call it is

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<sup>1</sup> Each Public Safety and Law Enforcement agency must be registered with the FCC’s Number Portability Administration Center (NPAC) through the FCC’s Local Number Portability Administrator (LNPA). For more information, please reference the State 911 Department’s website at [www.mass.gov/orgs/state-911-department](http://www.mass.gov/orgs/state-911-department).



listed with. Telecommunicators requiring subscriber information on subsequent calls will be required to initiate a new exigent call trace procedure.

- e. Call trace data associated with a NSI Device is, by default, the last available information associated with that handset, and may not require initiation of a new exigent call trace procedure.
  - f. In conjunction with the current call data, if a location of the call can be positively determined and is outside the PSAP's jurisdiction, the local Primary or Regional PSAP, RECC or out-of-state agency of jurisdiction shall be notified and all pertinent information shall be relayed to that agency.
9. **Review the Call Audio:** Before a call with no response can be classified as an Unintentional Call, the telecommunicator shall replay the call audio through the 9-1-1 application, at least once, and re-examine the entire call audio to ensure there are no indications that the call is an actual emergency call.
10. **Examine the History of phone number:** If, during Steps 1-6, an Exigent Circumstance exists the telecommunicator shall examine the history of calls from the ANI in an attempt to determine the PSAP's previous interaction (if any) with this device. The telecommunicator shall do one or more of the following:
- a. Review the Call History and/or Location (Loc) History from the ALI Display.
  - b. Plotting the GPS coordinates from the previous call(s), if available on a mapping application.
  - c. Examining the Call Detail Records from the previous call(s).
  - d. Reviewing the call audio from the previous call(s) in an attempt to determine the nature and/or location of the previous call(s).
11. **Releasing Calls:** Upon confirmation of one of the following, the call shall be released:
- a. The dispatchable location is within your PSAP jurisdiction, the nature of the incident is confirmed with the caller, the request for assistance is processed following the PSAPs associated procedures.
  - b. The call requesting assistance is successfully transferred to the local Primary, Regional PSAP, RECC, or out of state PSAP of jurisdiction.
  - c. The previously listed and necessary actions have been completed the call can be classified as an Unintentional Call.