

# **Guidelines For Minimum Response To Wireless 9-1-1 Calls**

**Operational Model Recommendation**

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NENA's Operations Committee has developed this document. Recommendations for change to this document may be submitted to:

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## EXECUTIVE OVERVIEW

This document has been developed to serve as a model standard operating procedure for those Public Safety Answering Points (PSAPs) that receive wireless 9-1-1 calls.

To facilitate the handling of wireless 9-1-1 calls, the following information is provided:

- A description of the Phases of wireless 9-1-1 implementation and the type of information that is delivered to the PSAP with each Phase.
- Definition of the types of disconnected or silent 9-1-1 calls that a call-taker may encounter.
- Recommended action when a call taker receives a silent 9-1-1 call or the caller is disconnected.
- Guidelines for the use of discretion when a silent or disconnected call is encountered.
- Recommended action in the event an emergency service response is required.

Since local options are varied, this document also provides sections to describe the appropriate:

- wireless call routing configuration
- wireless trunking solution
- wireless service providers emergency contact information



## I. INTRODUCTION

- A. *Purpose and Scope:* These guidelines have been developed to facilitate the handling of wireless 9-1-1 calls.
- B. *Reason for Issue:* This document has been issued to serve as a model standard operating procedure for those Public Safety Answering Points that receive wireless 9-1-1 calls.
- C. *Document Terminology:*
1. “Abandoned 9-1-1 call ” is defined as “someone has dialed 9-1-1 and all available operators are busy. The call is placed into queue for answer. Rather than wait for an available operator, the caller elects to hang-up prior to the 9-1-1 call being answered by an available 9-1-1 operator.” This type of call is very similar to a “Hang-up 9-1-1 call”. Generally, an “abandoned” call is more often associated with call centers that have an automatic call distribution (ACD) call delivery scheme.<sup>1</sup>
  2. “ALI” (Automatic Location Identification). The automatic display at the PSAP of the caller’s telephone number, the address/location of the telephone and supplementary emergency services information.<sup>2</sup>
  3. “ANI” (Automatic Number Identification) - The automatic display at the PSAP of the telephone number associated with the access line or wireless phone from which a call originates.<sup>2</sup>
  4. “Hang-up 9-1-1 call” is defined as “someone, either through malicious intent or accidental occurrence, has dialed 9-1-1 and the call has passed through the emergency network. The initiating caller has hung up prior to

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<sup>1</sup>Source: NENA Best Practices Standard for Processing Silent or Hang-Up 9-1-1 Calls for Service, Original dated August 23, 2002.

<sup>2</sup>Source: NENA Master Glossary of 9-1-1 Terminology, NENA-01-002, Revised February 27, 2003



the 9-1-1 operator answering the call.” This type of call is very similar to an abandoned 9-1-1 call.<sup>3</sup>

5. “PSAP” means a public safety answering point, the location at which 9-1-1 calls are initially answered.
6. “Phase 0 (Zero) Wireless 9-1-1 Call” means the delivery of a wireless 9-1-1 call to a designated answering point. Phase 0 may or may not support ANI or ALI information.
7. “Phase I Wireless 9-1-1 Call” The delivery of a wireless 9-1-1 call with call-back number and identification of the cell-tower/sector from which the call originated. Call routing is usually determined by cell-sector.
8. “Phase II Wireless 9-1-1 Call” In addition to providing Phase I information, the wireless network delivers the geographic coordinates of the mobile caller within a specified accuracy.
9. “Rebid” is defined as the manual or automated request for an update to the location information for Phase II Wireless Calls.
10. “Silent 9-1-1” call is defined as “someone has dialed 9-1-1, the call has successfully passed through the 9-1-1 network and has been answered by a 9-1-1 operator. No voice communication is heard on the initiating caller’s end of the emergency call.”<sup>3</sup>
11. “Wireless 9-1-1 Disconnect” means a wireless 9-1-1 call that is disconnected or one in which the caller hangs up before the 9-1-1 professional is able to ascertain any information.

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<sup>3</sup>Source: NENA Best Practices Standard for Processing Silent or Hang-Up 9-1-1 Calls for Service, Original dated August 23, 2002.

## II. OVERVIEW

- A. *Phase 0 (Zero)* – When Phase 0 has been implemented, a wireless 9-1-1 call is delivered to the PSAP with or without call-back or location information.
1. Utilizing 7 or 10 digit lines with caller ID the PSAP may receive the call-back telephone number.
  2. In an Enhanced 9-1-1 environment the PSAP may receive the following information:
    - a. The tower-face or routing telephone number identifier
    - b. Location of the tower that is handling the call
    - c. Wireless service provider
    - d. Typically, carriers also note which direction antenna array on the tower is handling the call, although this is not part of the FCC requirement. Example: “123-B North Spring Road, Cell Tower, NE”
- B. *Phase I* - When Phase I has been implemented, a wireless 9-1-1 call is delivered to the PSAP with the following information:
1. Wireless phone call back number
  2. Location of the tower that is handling the call
  3. Identification of the wireless service provider responsible for the tower that is handling the call.
  4. Directional antenna array information as noted above.
- C. *Phase II* - When Phase II is implemented, a wireless 9-1-1 call is delivered to the PSAP with Phase I information and the approximate location of the wireless caller based on the X,Y (longitude and latitude) coordinates determined by the system.
1. The X,Y coordinate is an estimate and the actual location of the wireless 9-1-1 caller may not be exactly as indicated.



2. The FCC requires that when a Phase II call does not generate a usable geographic location, the call should be delivered as a Phase I call, and include all Phase I information.
3. In the event Phase II information is not delivered with the initial call data, the call taker should wait N seconds before initiating a rebid.

D. *Wireless 9-1-1 Call routing*

<<describe the wireless routing configuration for your PSAP - check with your service providers for this information>>

E. *Wireless 9-1-1 Trunks*

<<select the solution appropriate for your agency>>

*Solution 1:* Wireless and wireline 9-1-1 calls are received in the PSAP on separate 9-1-1 trunks. In the unlikely event of a failure of either system, the other should remain operational. This system also has the benefit of preventing a major accident or other emergency being reported by multiple wireless subscribers from jamming the entire 9-1-1 system. The number of wireless and wireline trunks at each PSAP is based on call volume and will be closely monitored.

*Solution 2:* All wireless and wireline 9-1-1 calls are received in the PSAP on the same trunks. This system has been implemented to insure that wireless calls are handled in the same manner as wireline calls.

- F. *Documentation.* Call takers will document with whom they spoke, the reason 9-1-1 was dialed (e.g., nature of the call, or accidental, misdial) and any other explanatory or “intuitive” observations discerned from the call. A disposition should be added to the call record for statistical analysis and documentation.



### III. PHASE I OR II WIRELESS 9-1-1 DISCONNECT AND SILENT CALLS

- A. *Call Back.* The call taker will attempt to call back a wireless telephone when a 9-1-1 call is routed to the PSAP and the call disconnects before personnel can determine if assistance is needed. Personnel will call the number back once to make this determination. If the wireless phone is busy or there is no answer, additional attempts to contact the caller will not be made by communications personnel. If the call back attempt goes to voice mail, no message will be left.
- B. *Silent Calls.* In compliance with Public Law 101-336, also known as the *Americans with Disabilities Act*, all silent calls will be interrogated with a TDD/TTY to determine if the caller is attempting to report an emergency using a special communications device for hearing impaired individuals.
- C. *Contact.* If contact is made with the caller, communications personnel will follow call handling procedures established by the local agency to determine whether a public safety response is necessary.
- D. *Indicated Emergency.* Any evidence of an emergency situation requires that communications personnel initiate efforts to re-contact the caller to determine the nature of the incident and an accurate location for appropriate public safety response, according to procedures established by the local agency. If attempts to contact the caller are unsuccessful, a field public safety response will be initiated based on the caller location provided by the 9-1-1 system. Extraordinary attempts to locate a Phase I or II wireless 9-1-1 disconnect caller will only be made in the instance where an emergency is clearly indicated.

### IV. COMMUNICATIONS PERSONNEL DISCRETION

- A. *Discretion.* Communications personnel should pay close attention to background noise, tone and word choice of caller as additional evidence to assist with determination of the status of the 9-1-1 call. The time of day and location of the caller may be additional clues to indicate whether a response is necessary. In any



situation where the call taker believes an emergency situation may exist, an appropriate public safety response will be initiated.

- B. *Cancellation.* Communications personnel can disregard a wireless 9-1-1 call if there is evidence that the call is one of the following situations:
1. *9-1-1 Misdial.* A call is classified as a 9-1-1 misdial when the caller stays on the line and admits to the misdial.
  2. *Unintentional 9-1-1 Call.* A call is classified as unintentional when the 9-1-1 personnel can hear conversation, radio, etc. in the background and have listened sufficiently to determine that there are no sounds of an emergency situation.
  3. *Children playing on the phone or prank 9-1-1 calls.*

**Note: Some agencies may require a response in these or similar situations.**

## V. RESPONSE NOTIFICATION

- A. In the event the nature of the call requires an emergency service response (*i.e.*: *indicated emergency or agency policy*), the call taker should take the following action:
1. If the caller's location is not known but the phone number was displayed, the call taker should contact the Wireless service provider to do an account search for the residential address. Keep in mind that this may not be the location the caller was calling from since a wireless phone was used.
    - a. The 24x7 contact information for those companies providing wireless service to our jurisdiction is located as Appendix A to this document.



- b. The exigent circumstances form (attached as Appendix B) should be used to make such request for information.
  2. If the approximate location is known, the call taker should inform the dispatcher (or emergency service personnel) of the 9-1-1 call source data.
- B. *Call source data.* The dispatcher (or emergency service personnel) should be informed of the following:
  1. The call was a wireless call.
  2. Type of emergency (if available).
  3. Specific caller information (if available), such as:
    - a. Make, model and color of vehicle
    - b. If location is provided:
      - (1) Street address
      - (2) Highway and mile marker
      - (3) Direction of travel
    - c. If no location is provided:
      - (1) Longitude and latitude (converted to physical location)
      - (2) Nearest landmark (center of search area).
      - (3) Approximate search radius (if indicated).
  4. Type of call (if no other information is available)
    - a. Silent
    - b. Hang-Up
    - c. Abandoned
    - d. Other

**Appendix A. Wireless Service Providers Emergency Contact Information**

<<insert 24x7 emergency contact information for your jurisdiction here>>



**Appendix B. Exigent Circumstances Form**

TO: Telephone Service Provider  
Compliance/Legal

FROM: \_\_\_\_\_  
Name of Agency/PSAP

RE: Emergency Request for Records

This office received a distress call for assistance on \_\_\_\_\_ 200\_\_ at \_\_\_\_\_ a.m./p.m.  
Based upon that phone call we believe that one or more people face immediate danger of death or serious  
physical injury. As such, we request that you promptly provide us with the following information so that we  
may render assistance to that individual (or individuals):

\_\_\_\_\_ current subscriber name and billing address information for the above-reference  
telephone;

and/or

\_\_\_\_\_ cell site or location information for the call placed by the above-referenced  
telephone call to 911.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Contact Number: \_\_\_\_\_

Fax number: \_\_\_\_\_

