FAILED & PHANTOM E911 MANUAL

RA PROCESS – TIER 3 AGENT RESPONSIBILITY

There is only one minor change of Tier 3 agents' responsibility when receiving a call from a customer reporting failed or phantom 911 calls. The responsibilities still include (as they always have):

- Information gathering
- Scheduling trouble call (No Dialtone w/ all info)
- Documenting ALL info in Remedy and on Customer's account (*see escalation spreadsheet*)
- Escalating to DPED only (who will send to GNOC-Voice & E911 after review)
- Sending an E-Mail to **WEST.TIER3.COSRA@TWCABLE.COM** bucket notify RAs tracking the 911s

Other than the change of E-Mail address you will notify, you will still following these steps for Phantom/Failed 911s: http://key.twcable.com/west/Pages/911FailedPhantom.aspx supposing KEY has been updated at that time. If not, refer to this document and the Tier 3 escalation spreadsheet.

RA PROCESS – INTRODUCTION

E911 (Enhanced 9-1-1) issues for residential customers fall into two categories: Failed and Phantom. Each has several ways they occur, but can each be identified easily.

Phantom E911: This occurs when emergency services arrive at the customer's location, or the customer receives a call from a PSAP stating that they called 911, but the customer did not dial 911 deliberately. An example may or may not exist in this instance.

Failed E911: Occurs when the customer deliberately dials 911, but instead of everything going smoothly, they get a busy signal/error message, gets routed to the wrong PSAP, gets routed to some other number, or has their MSAG information (address) displayed improperly at the PSAP.

Once Tier 3 has been made aware of an E911 issue, it is considered the responsibility of Tier 3 to take any necessary actions, steps, or processes to reach a full resolution of the issue for the customer, while maintaining thorough documentation.

The Tier 3 E911 lifecycle includes:

- Proper and timely TRB/Remedy escalation of High Priority issue to DPED (Initial Tier 3 contact)
- Tracking of TRB to ensure DPED/GNOC/E911 and any PSAP/PAC actions are completed (RAs)

- Tracking of E911 trouble call to completion with modem swap & emailing checklist (RAs)
- Obtaining E911 checklist from technician following trouble call, verifying modem swap & attaching checklist to Remedy ticket or emailing tech/tech sup again until done (RAs)
- Confirmation following completion of all of the above:
- Monitoring for additional occurrence (Phantom)
- E911 test call to confirm resolution (Failed)
- Notification of the customer of resolution and/or status (RAs)
- Ticket closure in Remedy and account annotation (RAs)

If any failure(s) to follow process/procedure are made by any other department, it is the responsibility of Tier 3 to take the necessary action(s) to correct the problem(s), and follow-up with the appropriate management to prevent future/repeat instances of the same problem(s).

Below provides a brief summary of the typical cause/resolutions of E911 issues. Each E911 issue will fit into one of the following 4 categories:

- Phantom 911 Call(s) DID traverse TWC network
 - o Indicates a CPE/wiring issue or customer error; resolved by trouble call.
- Phantom 911 Call(s) did NOT traverse TWC network
 - Indicates an ILEC issue requiring SOS/CLEC-OPS escalation (still requires trouble call)
- Failed 911 Test 911 call successful
 - o Indicates a CPE/wiring issue or customer error; resolved by trouble call.
- Failed 911 Test 911 call Unsuccessful
 - Indicates an ILEC issue requiring SOS/CLEC-OPS escalation (still requires trouble call)

*****all trouble calls require checklist and modem swap, no matter the issue*****

ROLES AND RESPONSIBILITIES

Although Tier 3 functions as the centralized point of escalation Quality Control, tracking, and customer contact for E911 issues, several other departments play vital roles in the resolution of E911 issues. All department titles, roles, and responsibilities are provided below.

Initial roles of Tier 3 -- Reps and RAs: Tier 3 should be the first POC for customers reporting E911 issues. Contacts received by other non-Tier 3-CCRs should be transferred to Pacific West Regional Tier 3,

per pre-existing policy. It is then the responsibility of receiving Tier 3 representative to follow their internal process for creation of an Remedy ticket, escalate it to DPED, and to then *notify the RA group via E-Mail (WEST.Tier3.COSRA@twcable.com)*, providing the required documentation (information) as laid out by Tier 3 Escalations Document/KEY policy; and to ensure that a trouble call has been scheduled as soon as possible for the customer using the "NO DIALTONE" reason code, *regardless of the nature of the E911 issue (Failed/Phantom)*.

Tier 3 and RAs: As stated previously, Tier 3 RAs are responsible for the receipt of E911 issues from any Tier 3 representative (or other sources as described in the sections to come). Along with the previously provided guidelines of E911 lifecycles, Tier 3 RAs are responsible for the following general steps in E911 tracking:

- Proper and timely escalation of issue to DPED with all pertinent information (Initial Tier 3 contact)
- Verifying all information, testing, and troubleshooting has been performed and documented (Initial Tier 3 contact and RAs)
- Verifying proper TRB escalation process followed & Trouble call scheduled (RAs)
 - Ensuring thorough ticket documentation from beginning to end, and following every update (RAs)
 - Following DPED/GNOC/E911 progress and return of ticket to Tier 3/network issue resolution (RAs)
 - Tracking E911 trouble call; keeping progress documented; following up and escalating along the chain-of-command with TechOPS until checklist is fully documented/modem swapped and attached to remedy ticket even if daily requests must be sent (RAs)
 - Verifying all resolution information provided by TechOPS and DPED/GNOC/E911, and reescalating the issue as needed for any oversights or lack of resolution by any department (RAs)
- Confirmation following completion of all of the above:
- Monitoring for additional occurrence if Phantom 911
- E911 test call to confirm resolution by Tech (& customer if PSAP issue) if Failed 911
- Notification of the customer of resolution and status (RAs)
- Ticket closure in Remedy (RAs)

TechOPS: is responsible for rolling on all "NO DIALTONE" trouble calls with 911 job comments, and taking the appropriate actions as designated by the Phantom and Failed E911 checklists. It is the responsibility of the technician assigned to each job to ensure fulfillment of the checklist/modem swap and document all steps taken and changes/resolutions, and follow-up with Tier 3 RAs (WEST.Tier3.COSRA@twcable.com) to provide this information. One attempt should be made each day to get this information to tech & tech ops sup.

Tier 3 RAs may occasionally find it necessary to escalate the checklist request through the chain-of-command, beginning with the tech and their sup, and continuing with the manager (upon 3rd attempt), director, VP, and so on. A full policy for this process will be provided later in the document.

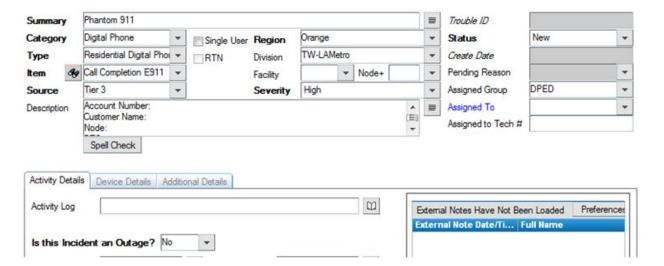
DPED: is responsible for accepting TRB tickets escalated by Tier 3 for E911 issues, and escalating to GNOC/E911 to performing one of the following:

- Verify findings of on-net Phantom E911 and re-assign ticket to Tier 3 RAs for resolution with TechOPS
- Verify findings of off-net Phantom E911 and open a ticket with SOS/CLEC-OPS for ILEC contact and resolution, providing daily weekday updates from SOS/CLEC-OPS through resolution
- Verify findings of Virtual-Swap-Successful Failed E911, and re-assign ticket to Tier 3 RAs for resolution with TechOPS/Customer Education.
- Verify findings of Virtual-Swap-Unsuccessful Failed E911, and open a ticket with Sprint for updates to MSAG, routing, etc, providing daily weekday updates through resolution

SOS/CLEC-OPS: is responsible for accepting escalations from GNOC, and either making the necessary changes/update for Failed E911 issues, provide daily updates through resolution; or making contact with the proper ILEC for off-net Phantom issues, pushing as necessary to provide daily updates through resolution.

PAC: Although not as common, PAC is occasionally engaged by GNOC for Failed E911 issues where the problem is caused by an on-net provisioning issue or incorrect PSAP information. This should be Tier 3 knowledge, but it is not the responsibility of Tier 3 to fully determine when/if PAC needs to be engaged, such responsibilities ultimately belong to GNOC especially for updating PSAP information in database.

Other sources of E911 reports: Although not as common, reports of Failed/Phantom E911 issues are occasionally received from other sources such as ATS, TechOPS, and even non-Tier 3-CCRs. It is expected, regardless of the source or nature of the issue, that the party who encounters the E911 issue will report it to Tier 3 for escalation, tracking, and resolution. Although some scenarios will be provided later in this document for issues that are occasionally seen with such third party receipts of E911 issues, it is the expectation of the Tier 3 that all E911 issues must be reported and handed off to Tier 3.



Escalation QC

When receiving the email from agent in West-Tier3-Cosra mailbox all initial troubleshooting should already be completed and documented as well as TC scheduled. It is the role of the Tier 3 RAs to verify the key information has been included, ensure that anything that is missing/incorrect is added to the TRB ticket, and verify TC/send checklist to tech and tech sup. Within the TRB's activity notes, the following points should be included along with normal DP ticket information:

- Phantom or Failed 911
- Customer's Digital Phone number
- The phone number to which the police were responding (Phantom) (if available)
- The date and time the police arrived (Phantom)
- The date and time the customer attempted to call 911 (Failed)
- Hammer search results. Date/time and call ladders show be included for any calls found.
- Trouble call job number and scheduled timeframe. Validate it has correct job type, and paste the notes reflecting the following: "Phantom 911-Must swap MTA, customer contact ###-####."

If any of the above information is missing, immediately follow up with the **customer**, escalating agent and/or supervisor to ensure the information is documented in the TRB ticket, and any missed steps, such as scheduling the Trouble Call, are completed and documented as soon as possible. If necessary, the Tier 3 RA should perform Hammer searches, or make customer contact to obtain the required information or schedule a Trouble Call (which, if not scheduled initially, would be put in by sup & customer called back to confirm date/time/importance of appointment).

TRACKING AND FOLLOW-UP

Now that the ticket has been analyzed, escalated, and all bases have been covered, RAs now begins the process of tracking the ticket(s) to ensure an accurate and complete resolution is reached. Everyday every 911 IssueTrak ticket should be reviewed and updated, monitoring for any actions that need to be taken by the RAs. The RA following up on a particular 911 ticket for the day should read through each ticket's comments (in the history tab) to assess the current status of the issue, document any updates, and take any necessary actions following the below checklist, documenting each point:

- Has the Trouble Call been completed?
 - No
- Verify the TC is still scheduled.
- If the TC has been canceled, begin customer contact attempts to reschedule a TC. (If customer cannot be reached, please follow that policy documented in the "What Ifs" subsection of MISCELLANEOUS towards the end of this manual.)
 - Yes
- Has the Checklist been returned and completed & modem swapped?
 - Yes Make sure the checklist has been attached to the TRB tickets
 - No Follow the **Checklist and Escalation Procedures** in the following sub-section & email tech ops to return to swap modem if not done during appointment.
 - Review the TRB ticket for any updates from GNOC/SOS/CLEC-OPS.
 - o Is the TRB still assigned to DPED/GNOC/E911?
- Copy any recent updates to the TRB comments (which have not already been entered)
 - o Is the ticket assigned to Socal-Tier3?
- If the DPED/GNOC needs more information, complete the needed research and document the information into the TRB and assign back to DPED/GNOC. (If customer cannot be reached to confirm any specifics, please follow that policy documented in the "What Ifs" subsection of MISCELLANEOUS towards the end of this manual.)
- If GNOC & E911 has completed its end of the investigation, document their resolution. If/when the TC and checklist are completed, begin the monitoring and resolution documented in the next section.

Checklist and Escalation Procedures

One of the most important steps in any 911 issue is obtaining an accurately completed 911 Checklist from the technician who completes the trouble-call. In order to ensure the checklist are filled out and returned in a timely manner, the checklist is e-mailed to the assigned technician and technician's supervisor prior to the trouble-call, or as immediately thereafter as possible, if missed. A follow-up time should be set in Outlook to pop 1 hour before the start time of the trouble call window.

- Send the initial request to the technician who is assigned to the trouble call, and CC their supervisor & WEST.Tier3.COSRA.
- Allow the technician until 24 hours after completion of the trouble call to make contact with the RAs. After this, send a Reply All, asking professionally if there is an update on the checklist and memo ticket of attempt to contact tech ops.
- Allow an additional 24 hours for follow-up. If no follow-up is received from the technician and/or supervisor, CC your direct supervisor and Tech supervisor's manager, and asking professionally if there are any questions, and informing everyone in the chain that we need the checklist as soon as possible to stay in 911 compliance as this is the 3rd request and memo ticket of attempt to contact tech ops.
- Allow another 24 hours, if after which point no follow-up is received, contact your supervisor
 again to send another reminder E-Mail to all involved, asking for an update and memo ticket of
 attempt to contact tech ops.
- After another 24 hours of this E-Mail, contact your supervisor & manager, so they may escalate to the next level of tech ops management and memo ticket of attempts to contact tech ops.
- Continue this "Update Request; Escalation; Update Request; Escalation" process until a response
 is received per TWC policy and memo ticket of repeated attempts to get Tech ops to respond until
 a manager changes what to do next or it becomes acceptable to move on for various reasons.

Although it should rarely require escalation past the Manager level to get a follow-up, continue this process as needed, as it is absolutely necessary to 911 compliance and legal liability coverage to complete the checklist in full, and have it documented for FCC regulation.

The only exception to this rule is weekends (Saturday and Sunday) which should not be counted when asking for updates or making escalations past the initial E-Mail to the assigned tech/supervisor.

Checklist Verbiage and Plain-text

When reaching out to a technician with the initial checklist, please use the following verbiage (completing the fields necessary):

"We are emailing you regarding JOB(job#), for(date/time), on account(acct#). For documentation and liability purposes we need the following check-list filled out in full. If you have any questions do not hesitate to contact us"

Telephone Conditions
Mark an X in the check box next to the statement if applicable.
[] Worn or sticky push button(s)
[] Speed Dial programmed TNs
Device is located near interference sources (example: microwave, halogen lamp, standing
fan)
Telephone Type
POTS
Cordless Phone
Battery needs replacement
[] Early model 900 MHz
[] 2.4 GHz, 5.8 GHz or DECT 6.0
[] Rocket dial feature (pre-programmed 911 dialing)
[] TN(s) programmed with Speed Dial feature has 911 as part of the TN sequence
TN Information
[] More than one tenant living in the home and using different TNs in the home
[] More than one TN assigned
[] Ported TN
[] Native TN
Address Conditions
[] Old number still connected to NID at the customer's address, shorted to generate E911
call
Equipment Conditions
Modem
[] Battery needs replacing
Battery at end of its lifecycle (3 to 5 years)
Modem at end of its lifecycle
Connections & Wiring
[] Loose connection or wiring
[] Shiners or corrosion on lines connected to TWC DP network causing static and possible
pulse dialing
Water in the NID; water or corrosion on the twisted pair caused voltage shorts to dial
out to random numbers
[] Short on NID twisted pair at the NID
[] Vendor troubleshot the wires in the junction box that could be shorting out
[] An animal may have chewed on the telephone satin cord
The security alarm is properly connected
[] The customer installed splitter outside the house can cause water and corrosion on the
phone splitter
[] If so, remove the splitter and run a new line for the customer
Other Conditions
[] Someone in the house could have dialed E9-1-1
Failed E911 Checks
[] Swap the eMTA MUST BE DONE REGARDLESS.
[] Disconnect the MTA and plug into the house jack. Call 911 to verify the NID is no
longer connected to ILEC.
[] If 911 call is still completed in step above, verify NID is disconnected from ILEC and
retest.
[] Connect back MTA and call 911 to ensure call is routing to the correct PSAP (Public
Safety Access Point)

Just reply when complete and we will update the ticket.

Accessing the RA Mailbox

- 1. Login to your TWC webmail account https://webmail.twcable.com
- 2. Click the arrow beside your name



3. Type the name of the mailbox/click or select the name



- 4. Click open
- 5. Click "Accept" on the pop-up

MONITORING AND RESOLUTION

Using the guides provided in the beginning of this document, a resolution will be reached as appropriate, in the form of a physical correction made by our technician and/or an ILEC resolution made by SOS/CLEC-OPS. Once we have the appropriate resolution information (the checklist or the ILEC resolution information AND the checklist) the RAs will begin a 72-hour monitoring period prior to making customer contact. Doing so ensures that the issue does not repeat by a fluke and require immediate re-escalation.

72-Hour Monitoring

The 72 hour monitoring period includes running daily HAMMER searches, looking for new CDRs (which would, if located, indicate probable repetition of the issue) and checking the notes on the CSG accounts for any customer contacts indicating that the problem happened again.

If a repeat issue is located, the escalation process should begin again, at the point appropriate for the nature of the issue. This means that the current status needs to be re-analyzed, and re-escalations made or additional trouble-calls scheduled as necessary.

Follow-Up

Once 72 hours successfully pass in which no repeat issues are located, it is time to make customer contact. We want to let them know that we're following up in response to the issues they reported with either "problems making emergency calls", or "the phone calling 911 by itself". We will let them know the resolution information we found (a simple summary of the ILEC resolution, or pointing to physical repairs made by our technician) and stating that we have not seen any repeat issues from our monitoring since the resolution date, but that we would like to confirm this with them prior to closing out the ticket.

The customer will typically agree with this, and we can finish the call and begin closing out our tracking. If they disagree with this, as above, the escalation process should begin again, at the point appropriate for the nature of the issue that the customer states re-occurred.

Remember! Any customer contact information and discussions MUST be documented on the customer's CSG account, 911 hardcopy checklist and TRB!!!

911 Escalation

Failed 911 Phantom 911
Account number Telephone number TRB number Tech call work order number Date of tech call Tech assigned
Checklist sent to technician Date Initials
☐ EMTA replaced
Checklist received from technician Date Initials
Checklist added to TRB Date Initials
TRB completed and assigned to Tier 3 Date Initials
Customer contacted Date Initials Date Initials Date Initials
TRB closed Date Initials
Additional Notes:

Resolution/Closure

Once all resolution information has been collected, verified, and confirmed with the customer, all that remains is ensuring documentation of the resolution is performed by the RAs on the customer's CSG account, the related TRB (properly close), & the related 911 hardcopy sheet (at RA station).

MISCELLANEOUS

Most 911 issues follow the guidelines provided in this manual very closely. However, there are some exceptions. Although not all possible instances can be foreseen and described, the following describes the most common deviations from "standard policy", what to do when common hurdles are encountered, and then provides a glossary of terms and acronyms specific to 911 issues.

Other Sources of E911 Escalations, and Special Handling

Although all company policies designate that all E911 issues be sent to Tier 3 for analysis (and thereby sent to the RAs for verification and escalation), this does not always happen. When this process is deviated from, it is generally in one of the following forms:

Other CARE department does not give the customer call to Tier 3: When this happens, it is almost always the case that the other department schedules a trouble-call, and considers the process over. Tier 3 rarely finds out about these unless the customer calls back in to report a reoccurrence of the issue. If that occurs, the normal process should be followed, as if this is a new issue.

E911 issues reported to Tier 3 by other non-CARE departments: This happens when Divisional (TechOPS) "Tier 3" (ATS) receives a call from a field tech (or occasionally a customer) who has noticed a 911 issue. Process is supposed to designate that they take no action on it other than documenting the checklist (if reported by an on-site tech) and E-Mailing the RAs immediately with the customer information.

Occasionally you will receive such an escalation when a technician gets confused and calls TechOPS Tier 3 instead of us to document a checklist, even though the RAs are already tracking the customer's issue. Also, TechOPS Tier 3 does not always follow process, and may escalate a ticket improperly (manually) through ATG Remedy, and potentially cause duplicate efforts.

Proper handling: The first thing to do is to find out if the RAs are already tracking the customer's issue locating any and all 911 TRB tickets.

After doing so, it is also important to find out if TechOPS opened a Remedy ticket. If they did not, the RAs will need to either add the additional information to the pre-existing tracking of the issue, after determining if the issue needs to be escalated or is already being tracked, or escalate the issue from scratch and initiate the full process.

If TechOPS Tier 3 DID open a ticket, please go through the ticket history, determine at what point the process is at, and that all required documentation is included. Continue from that point on, creating an IssueTrak in the 911 bucket and thoroughly documenting everything that has happened.

"What If"s:

Although there are few of these instances, and it is impossible to define every deviation possible from standard policy, it is important to know how to deal with the following problems, should they arise:

Trouble-call is not scheduled properly or not scheduled at all: The bottom line here is that it is the responsibility of the Tier 3 and the RAs to ensure E911 process is followed. Although a follow-up should occur with agent who made the oversight and their supervisor of the agent who made the oversight to call the customer back and schedule the trouble-call, it is ultimately up to the RAs to make sure this happens, by making customer contact and schedule/re-schedule a trouble-call as needed (a supervisor will schedule the trouble call in this event). This general rule also applies to the following scenarios:

An agent cancels the E911 trouble-call, with or without customer request; or

Trouble-Call is canceled as "Not home": Although this should not happen (Dispatch is supposed to put missed 911 trouble-calls in "Held" status), it will still be up to the RAs to follow-up with the customer & dispatch, explain the importance of the trouble-call, and re-schedule appropriately.

Customer misses trouble-call and job is placed in "held" status: At this point, the RAs will be able to see the assigned tech, and should immediately take two actions. First, call the customer and find out what kind of days/times will be most suitable for them. Second, send an E-Mail to the technician assigned and their supervisor and ask if going back out may be accommodated with the times the customer provided. If that is not possible, it will be best to cancel that and re-schedule a new trouble-call.

Customer is unable to be reached: Because of the liability presented by E911 problems, it is very important every effort be made to reach the customer. To make this reasonable and defined, the following policy is provided for any time that the customer is missed when attempting to contact them:

- Obtain and make use of every possible contact number for the customer.
- Leave a message on every contact number at which the customer is not reached, if possible.
- Leave only as much information in the voice mail(s) as appropriate
- If it is something general such as a confirmation of resolution, ask them to call our main 888 number and have any representative document their response on the account.
- If we need specific information from the customer, inform them of this, and state that we will attempt to reach them at a later time.
- Continue this process until three (3) attempts have been made, unsuccessfully, to reach the customer.
- On the third unsuccessful attempt, inform the customer that we are closing our tracking of the issue, and if it persists, they will need to call the main 888 number to re-escalate the issue.
- This is only if this is the call to confirm resolution, or trying to schedule/reschedule a TC for an off-net phantom or a failed 911 where the 911 test or virtual swap by tech/DPED was not successful; a reasonable resolution should be met by the GNOC. If this is an on-net phantom, or failed 911 where the 911 test or virtual swap by tech/DPED was successful a minimum of one week of attempts should be made, a varying times of day before considering closing tracking. Tier 3 manager would need to be informed when closing a ticket where 3rd attempt was made but no customer was able to be contacted directly.

ENSURE THAT ALL ATTEMPTS TO REACH THE CUSTOMER, AND DETAILS OF THE ATTEMPTS AND ANY CLOSURES, ARE THOROUGHLY DOCUMENTED ON THE CSG ACCONT

Glossary of terms:

"Biscuit": A term used by TechOPS when referring to the small RJ11 box placed between the MTA and telephone, usually mounted to the wall. The primary purpose is extension of the line, but can cause wiring problems.

CDR: Call Detail Record. A record of a call made from a customer's MTA, including such details as digits dialed, time/date, and any pertinent errors. Although the call ladder and related details provide additional information, in E911 handling, the primary use of a CDR is that the validation/location of a CDR indicates that the 911 call traversed the customer's MTA/our network.

CSG: A term used interchangeably with "ACSR", "ACP", "ACPv", "Billing", to refer to the system used to manage customer accounts.

FQDN: Fully Qualified Domain Name. In this manual, this refers to the FQDN <u>of the customer's MTA.</u> This is used (preceded by aaln1/ or aaln2/) as the Endpoint ID in Empirix.

HXMS: Hammer XMS. Acronym used to represent the "Hammer" or "Empirix" software used to search for CDRs.

NID: Network Interface Device. This refers to the location on the customer's premise that the area exchange carrier connects their lines, and from which all of the customer's house wiring usually filters into. When we resolve a physical issue, it is commonly a problem within the NID. As a note, TWC occasionally installs our own NID instead of, or in addition to the ILEC NID.

QDT: Quick Dial Tone. Refers to a Telco line left "hot" at a residence. Usually connected to the NID, and is used to provide emergency outgoing calls, but no regular or incoming calls. When an ILEC makes a repair to an outside problematic line, it is usually to a damaged Telco portion of a QDT.

Telco: Telephone Company. Used interchangeably when referring to the ILEC that services a particular area.

ILEC: Incumbent Local Exchange Carrier. Used in this manual to refer to non-Sprint area-ILECs such as Verizon and AT&T, when off-net Phantom E911 issues must be escalated to such third-party ILECs for resolution.