PSAP Advisory For In-Car 3-party 911 stolen vehicle call System

911Tracker is an in-vehicle stolen vehicle recovery device that establishes a human-initiated 3-party 9-1-1 call with a remote vehicle owner and a PSAP (Public Safety Answering Point) having jurisdiction over the location of the stolen vehicle. The device uses a cellular number assigned to the device which allows a remote owner to call the device and order it to call 9-1-1 and establish a 3-party 9-1-1 call connection that allows the remote owner to talk to the PSAP Operator, explain the reason for the call (a stolen vehicle), and request emergency services to recover the stolen vehicle.

The 9-1-1 call originates from the 911Tracker device located in the vehicle so the 3-party 9-1-1 call will therefore provide both an audio call connection between the remote owner and the PSAP as well as normal wireless ANI/ALI data, including Phase II location (if implemented for the PSAP), if the PSAP Operator or PSAP equipment rebids for the caller location. In addition the device is programmed to transmit audible device-generated GPS lat/long information to the PSAP Operator when the Operator presses the number 3 button on their telephone dial pad to send a number 3 DTMF dial tone to the device. This lat/long location is normally accurate to within 10 meters and supplements the ALI date available to the PSAP Operator. The GPS location information provided during the audio announcement also includes vehicle speed and heading information.

It is important to note that the 911Tracker 3-party call is not an automatically generated telematics 9-1-1 call. It is a remotely commanded 9-1-1 call that is initiated by a remote vehicle owner and fully compliant with 3GPP2 and National Emergency Number Association (NENA) Future Path Plan (FPP) Compliance standards: See:
https://www.911tracker.com/911-Remote-Conference-Calling-Compliance.pdf and
https://www.911tracker.com/Emergency-Services-Wireless-Features.pdf

The 911Tracker device is programmed with dual-mode fail safes to insure that 9-1-1 will never get a 'silent' 9-1-1 call. In the event of a failure by the 9-1-1 call routing network to establish a 3-party 9-1-1 call connection by failing to join the remote user to the established device to 9-1-1 call connection, the device is programmed to detect this and to automatically begin voicing an audio message that includes the call-back telephone number of the remote person. This allows the PSAP Operator to call the remote person to verify the need for emergency services and obtain the license plate number, make, model, year and color of the vehicle. Since a device to 9-1-1 call connection is established by the device, the PSAP Operator is able to track the location of the device in real-time using ALI information and/or audio GPS location information from the vehicle. In the event of a dropped 9-1-1 call the device is programmed to auto-answer a PSAP call-back to its telephone number for a 2 hour time period. This allows the PSAP Operator to continue tracking the device by a call-back to the device via audio GPS location provided by the device even when Phase II ALI location information is not supported during a PSAP call-back call connection.

COMMON PSAP QUESTIONS:

Q1. If a 3-party 9-1-1 call from a vehicle is routed via the cellular network are there any differences that should be noted as compared to how traditional wireless 9-1-1 calls display on a PSAP ALI screen?

A1. The call is routed via a traditional cellular network and should be delivered to the PSAP as a wireless call. It should display on the ANI/ALI screen as would any other wireless call and should include a WPH1/WPH2 class of service.

Q2. If a recorded message is used to relay lat/long information, how does that compare to the lat/long on the ALI screen?

A2. The audible device-generated lat/long information is provided by the device's GPS module and supplements the Phase I & II wireless data provided by the wireless carrier and displayed on the ANI/ALI screen.

Q3. When calls are delivered or rebid as WPH2 what does the lat/long represent?

A3. If the rebid is accomplished via the PSAP equipment, it should represent the same data as would any other cellular call, which would be WPH2 data. As stated in response to question 2 above, the audible device-generated lat/long information is provided by the device's GPS module and is meant to supplement the Phase I & II wireless data provided by the wireless carrier.

Q4. How does a cancellation process work for an emergency call generated from a vehicle? How is the remote person able to cancel the 9-1-1 call without creating a potential abandoned/hang-up call at the PSAP?

A4. When the device receives a 'call 9-1-1 command' it voices, "Please hold until connected" and then dials 9-1-1. The remote person can "cancel" a 9-1-1 call by hanging up on the call until it is answered by the PSAP. Once the 9-1-1 call is answered by the PSAP, the call connection between the device and the PSAP can only be canceled by the PSAP hanging up. To insure that the PSAP will never get a 'silent' 911 call the device is programmed to detect when a 3-party 9-1-1 call failed to include the remote person. If this type of call failure occurs the device is programmed to then voice an audio message with a call-back number for the specific phone number of the remote person who ordered the 9-1-1 call.

Q5. How long do the real-time device-generated voice messages last?

A5. The initial message, which informs 9-1-1 of a 3-party call failure and the call-back telephone number of the person who initiated the 9-1-1 call takes approximately 15 seconds and says:

> "9-1-1. This is a stolen vehicle tracking device. Please call vehicle owner at [telephone number of remote person]. Press 3 to hear GPS location. Press 4 to mute this message. Press 5 to repeat message"

If the PSAP Operator presses 3 to listen to the GPS coordinates, it will last approximately 18 seconds. Pressing 3 during the initial message mutes the initial message and voices the location one time for each number 3 DTMF dial tone sent to the device. Pressing a number 5 DTMF

button will voice the initial message until the Operator presses number 4 DTMF button to mute it. A number 3 press will independently voice the GPS location at any time during the device to 9-1-1 call connection.

Q6. Will the audio message be played for a PSAP Operator if they do not request it?

A6. No. The audio message will play automatically only if the 3-party call connection fails and the remote person is not included in the established device to 9-1-1 call connection. During a successful 3-party call connection the remote person is able to speak with the Operator to provide any needed event or vehicle identification information to the Operator.

Q7. Does the remote person have to stay connected in a 3-party call connection during the entire device to 9-1-1 call connection?

A7. No. The remote person only needs to connect to the PSAP Operator long enough to explain the nature of the emergency and to request emergency services to recover the stolen vehicle. They can then hang up without ending the device to 9-1-1 call connection so that 9-1-1 can continue tracking the stolen vehicle using ALI or voiced GPS location information.

Q8. What preventative measures are taken to avoid false calls?

A8. Four steps are required to initiate a 9-1-1 call:

1. The device is programmed to only auto-answer the specific telephone number of the owner or their authorized emergency contact.

2. The device is programmed to voice: “Press 1 to continue” when it auto-answers the incoming call. If it does not receive a number 1 DTMF within 15 seconds it ends the call connection. This is included to prevent a ‘pocket dial’ from the user phone to the device.

3. After reception of the number 1 DTMF the device voices: “Press pound (#) to call police.

4. After reception of the pound (#) DTMF the device voices: “Please hold until connected” and then dials 9-1-1. The remote person can end the 9-1-1 call by hanging up before it is answered. Once answered, only 9-1-1 can end the device to 9-1-1 call connection. However, the remote person can hang up after providing the Operator with the vehicle identification information without impacting the established device to 9-1-1 call connection.

Q9. How is a valid user identified by the vehicle system?

A9. The embedded phone in the vehicle is a provisioned device on the wireless carriers’ network with it own telephone number. The telephone number of an authorized user is programmed into the device and only authorized user phone numbers are auto-answered by the device. All other phone numbers are ignored.

Q10. Does the device-generated, real-time voice message to 9-1-1 arrive by text-to-speech as TTY? Does the PSAP need some special equipment to receive it?

A10. No. The audio message does not utilize TTY. It is a device-generated real-time audible message that is routed to the PSAP as a typical wireless voice call.

Q11. Can a PSAP do an ALI call trace on the vehicle location or place a call-back to the vehicle in the case of a dropped call to continue tracking the stolen vehicle?

A11. Yes. Call trace is available as with any other cellular phone and there is also the ability to "locate" the vehicle based on the voiced audio GPS data. However, this is NOT a telematics service. Therefore, advanced telematics features like crash notification, vehicle telemetry/data, and remote lock/unlock or shut down are not available by PSAP control.

Q12. Can the PSAP Operator do a call-back to the telephone of the remote person who initiated the original 9-1-1 call?

A12. Yes. If the device to 9-1-1 call is still active the PSAP Operator can press the number 5 button on their telephone keypad and the device will voice the phone number of the remote person. If the original 9-1-1 call has been dropped, a PSAP Operator can do a call-back to the phone number of the device, which the device is programmed to auto-answer, the PSAP Operator can then press the number 5 button on their telephone keypad and the device will voice the phone number of the remote person.

Q13. I thought doing a pre-recorded message to 9-1-1 was illegal?

A13. This is not an automatic pre-recorded message. The call is human-initiated via the live remote person. The audible message received by the PSAP is a device-generated, real-time voice message that identifies the call as coming from a 911Tracker equipped vehicle. The recorded message will play only if the initial 3-party call failed to add the remote person to the device to 9-1-1 call connection or if the PSAP requests that it be played by pressing the number 5 DTMF button.

Q14. Why does the PSAP Operator have to hit an option to get the coordinates of the car? Shouldn't that be delivered as ALI data?

A14. They do not have to select an option to get ANI/ALI data; it will be presented just as in any other cellular call. The audio GPS location and remote person phone number options supplement the ANI/ALI information they do not replace it.

Q15. Since these calls route directly to 9-1-1, are 9-1-1 surcharge fees paid?

A15. When the 911Tracker customer subscribes to the paid service, any necessary 9-1-1 fee is based on the customer's address and will be paid by 911Tracker Inc. If a customer terminates the paid subscription there will be no further 9-1-1 fees paid.

Q16. What does the embedded device cell phone numbers look like on our ANI/ALI screen? Is there going be something about this phone number that we would recognize as being unique to 911Tracker?

A16. The call will present like a normal wireless call. There will be nothing to distinguish this call from any other cellular call in the ANI/ALI screen. The 3-party call connection with the remote person or the audible message at the beginning of the call (if the 3-party call connection fails) will be the only way to distinguish the call as a 911Tracker call.

Q17. Are the Option 3 GPS coordinates passed through the 9-1-1 system and arrive at the PSAP within the ALI record?

A17. No. The ALI record contains the WPH1/WPH2 data, as would any other wireless call.

Q18. Are the Option 3 GPS coordinates given to the call taker verbally through a device-generated voice?

A18. Yes. The Option 3 coordinates represent the GPS location information from the vehicle and are verbally transmitted, via device-generated voice, as digital latitude & longitude coordinates, speed, and heading.