

MOTOROLA SOLUTIONS

NEXT GENERATION 9-1-1 AND PRECISE LOCATION SOLUTIONS

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ROY MASSIE, SENIOR PRODUCT MANAGER
MOTOROLA SOLUTIONS



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A boy is lost in the woods and a strong storm is approaching.
Cell coverage is not good enough for a voice call.
He remembers he can try text to 9-1-1.
The Call-taker texts and determines he is not injured, just lost



Poor location accuracy
Is he actually in the woods?
Large uncertainty circle (miles)



Precise location of his device
See where in the woods he is
Uncertainty measured in meters

CALLWORKS

This is a geographic location map for a 911 call

The large gold circle represents the radius of possible locations based on traditional E911 location information

The smaller red circle represent the radius of possible locations based on RapidSOS technology in the caller's phone

The dashed red line visually connects the traditional location and the NG911 location to assist the 911 call-taker, since the two may be far apart

9-1-1 Precise Location

CALLWORKS



Challenges

Solutions

Telco wireless location is inaccurate

Caller does not know their location

Caller is moving

Caller is indoors

Plot the call location on a map

Use mobile device location and carrier's tower info

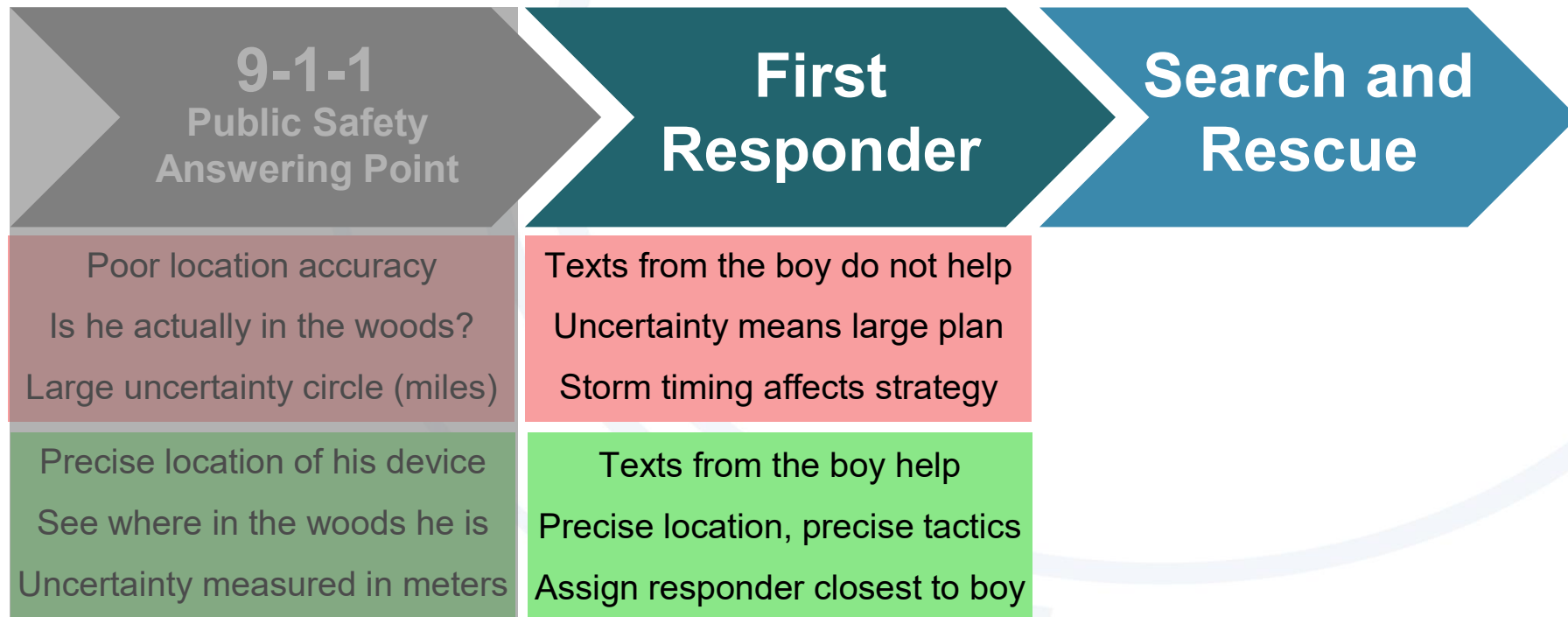
Update location as needed

Goal: Determine a dispatch-able location as soon as possible



The call-taker dispatches the incident to a police officer for field coordination

The officer sees another officer is closer to the boy and sends her.



First Responder Precise Location

PREMIERONE HANDHELD 

Challenges

How to plan with inaccurate location?

What are the resource needs for this situation?

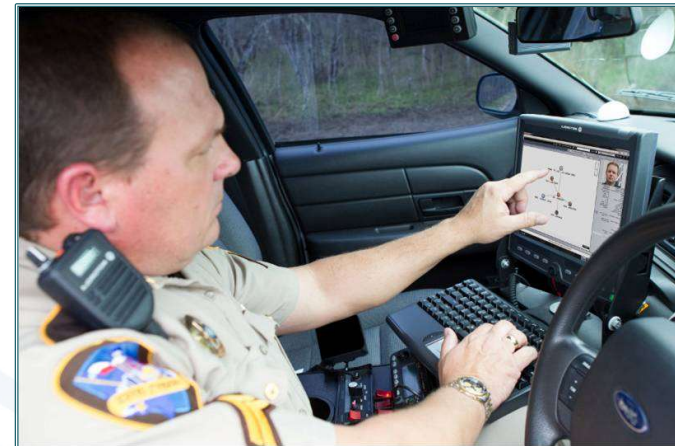
Is there enough time to execute the preferred plan?

Solutions

Understand the location and its implications

Assign resources accurately

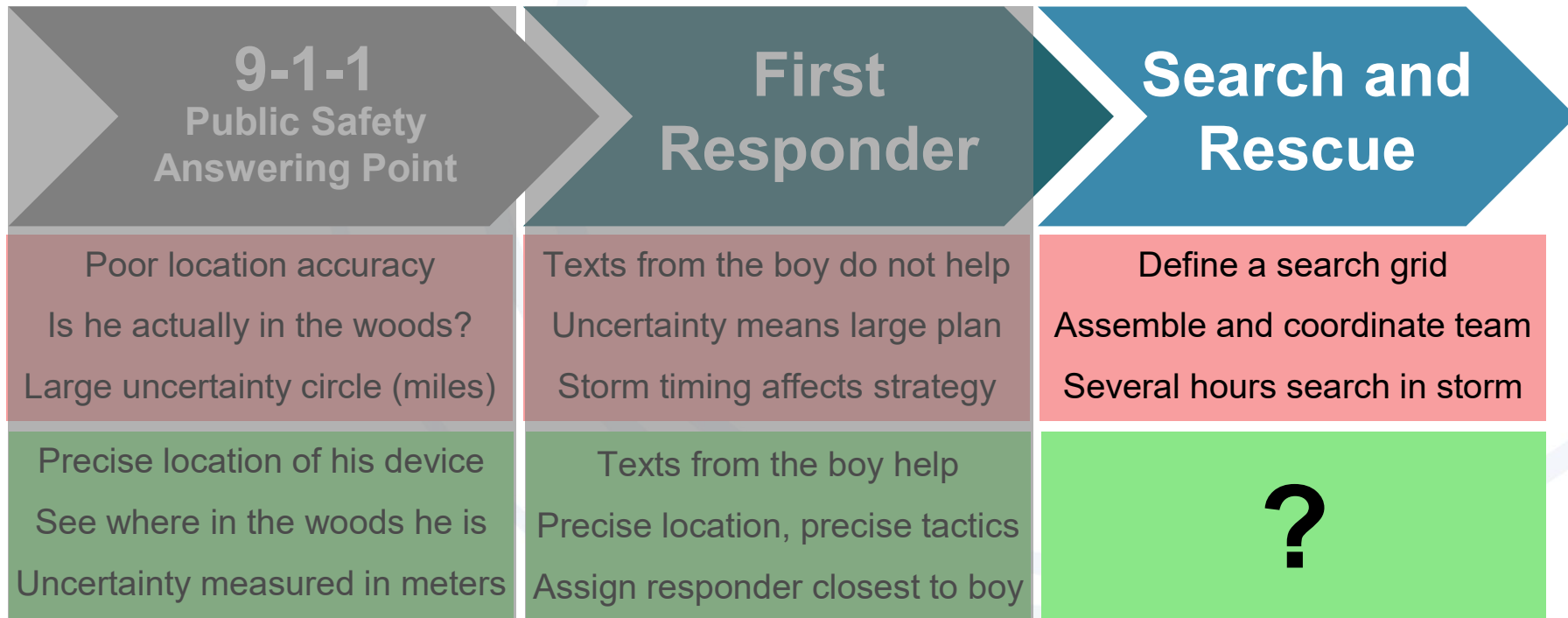
There is a clear destination for the response



Goal: Create an efficient response plan based on accurate location



The boy is moving through the woods, trying to find shelter from the storm.



Specialized Field Team Precise Location

ASTRO RADIO

Challenges

Where to begin? Are we in the right area?

Resource management is complicated

No clear destination

Where are the team members? Who is closest to victim?

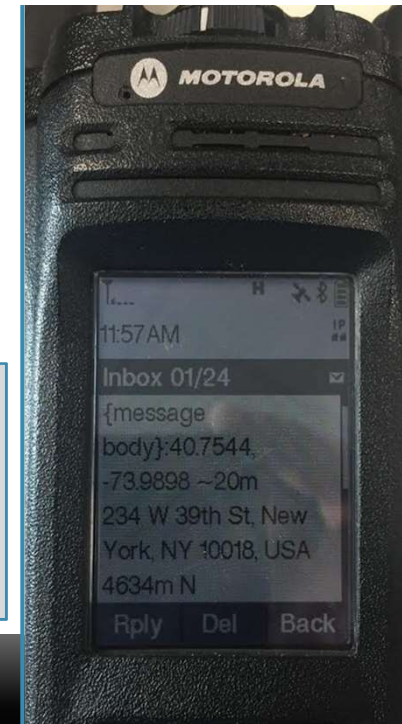
Time is the enemy – situations change and get worse

Solutions

Lookup victims location using their phone number

GPS in radio gives locations of full response team

40.7544, -73.9898 ~20m
234 W 39th St,
New York, NY, 10018
USA
4634m N



Goal: Quickly locate a victim even in adverse conditions



A photo of the boy is taken by PremierOne Handheld and attached to the incident.

9-1-1 Public Safety Answering Point

First Responder

Search and Rescue



Poor location accuracy
Is he actually in the woods?
Large uncertainty circle (miles)

Precise location of his device
See where in the woods he is
Uncertainty measured in meters

Texts from the boy do not help
Uncertainty means large plan
Storm timing affects strategy

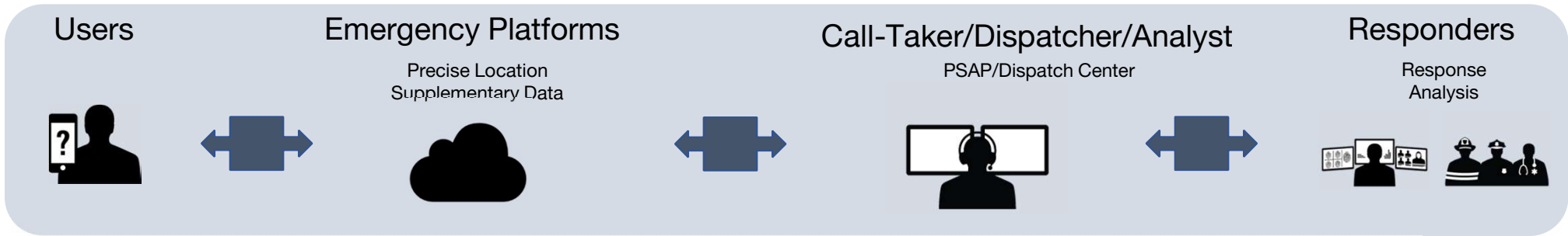
Texts from the boy help
Precise location, precise tactics
Assign responder closest to boy

Define a search grid
Assemble and coordinate team
Several hours search in storm

Go directly to recent location
Location updates to track boy
Reduce timing risks from storm

Precise Location Summary

- An important NG911 benefit is precise location of the victim based on their Smartphone location
- Precise location improves emergency response at every step of the process
- Increased NG911 funding provides both technology and training to transform emergency processes for the demands of the 21st century



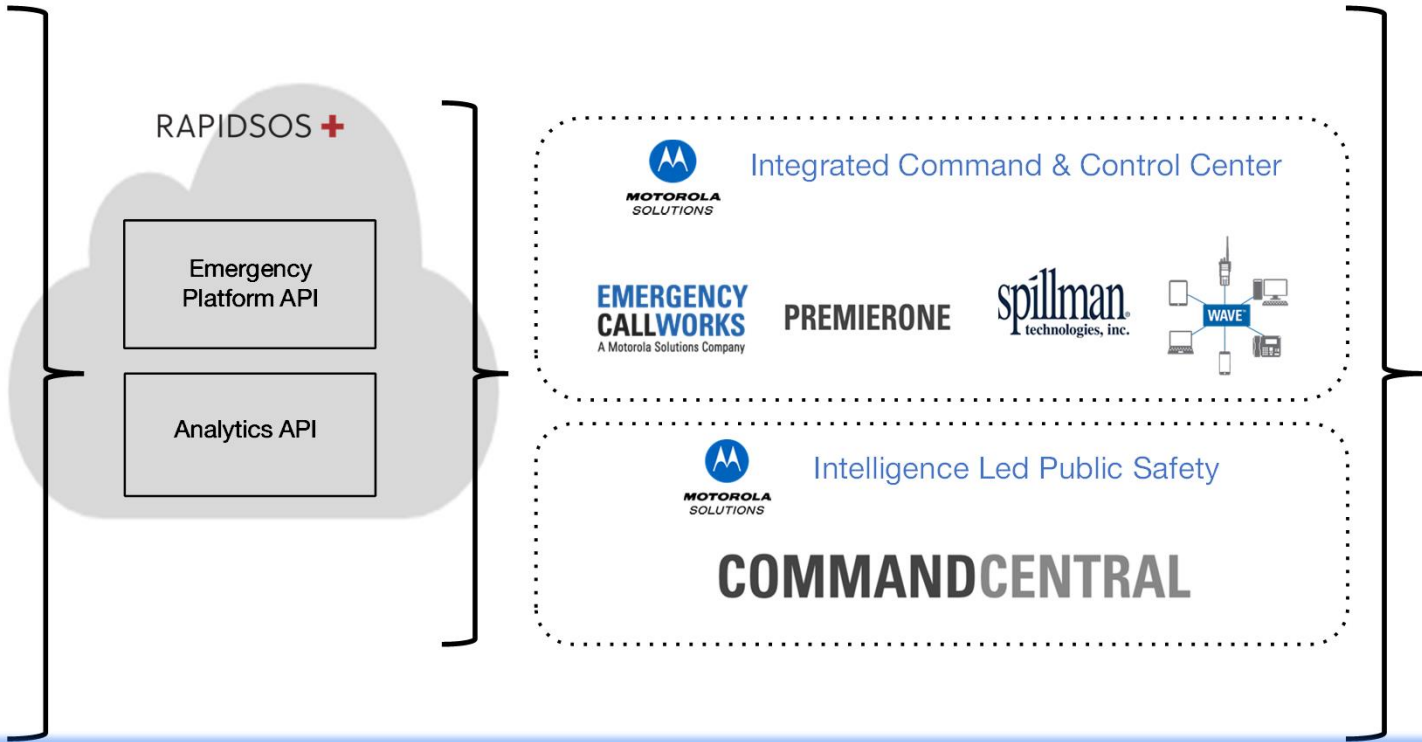
Mobile Devices

Mobile Applications

Haven White Labeled / Haven SDK

Supplemental Data Feeds

WEARABLES CONNECTED HOME
HOME SECURITY CONNECTED CAR



- First Responders**
- Emergency Contacts**
- Fleet**
- Devices & Apps**

Please visit our booth for more about NG911 and its benefits !

THANK YOU

