



EMERGENCY VEHICLE ALERT SYSTEM

Vehicular incidents involving First Responders DOT personnel and Tow Truck Operators have risen to crisis proportions



The Problem Has Reached Epidemic Proportions.

WTHI-TV 10
Coverage You Can Count On

SEMI COLLIDES WITH TROOPER WORKING ACCIDENT ON I-70



An Indiana State Police trooper escaped with only minor injuries after a semi collided with his patrol car Saturday evening.

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Posted By: Staff Report

10 TROOPER INVOLVED IN SEMI ACCIDENT
INTERSTATE 70 / VIGO COUNTY

VIGO COUNTY, Ind. (WTHI) - An Indiana State Police trooper escaped with only minor injuries after a semi collided with his patrol car Saturday evening.

According to Indiana State Police, Senior Trooper Tim Rader was working a semi accident along Interstate 70 in Vigo County when another semi hit his patrol car.

Investigators say the second semi driver tried to stop but jack-knifed due to the snow and ice.

Thankfully, Trooper Rader only suffered minor cuts and bruises. The driver and passenger in the semi were taken to the hospital with non-life threatening injuries.

The collision caused significant damage to the patrol car.

Investigators say the semi driver was traveling too fast for conditions.



Chicago Tribune
News / Local news / Breaking News

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State police: Illinois state trooper killed while responding to crash on I-294

PHOTO GALLERY



Law enforcement officers from around the state gather Friday at Willow Creek Community Church in South Barrington for the funeral of Illinois State Police Trooper Christopher Lambert, who was killed at an accident along I-294 on Jan. 12, 2019. (Chicago Tribune)

By **Jeremy Gerner, Rosemary Sobol and Elvia Malagon** · Contact Reporters
Chicago Tribune

JANUARY 19, 2019, 11:56 PM

A critical problem that must be solved:

There are over 150,000 collisions a year on our roadways involving First Responders, Department of Transportation and other roadway emergency service personnel, many result in fatalities or life-altering injuries.

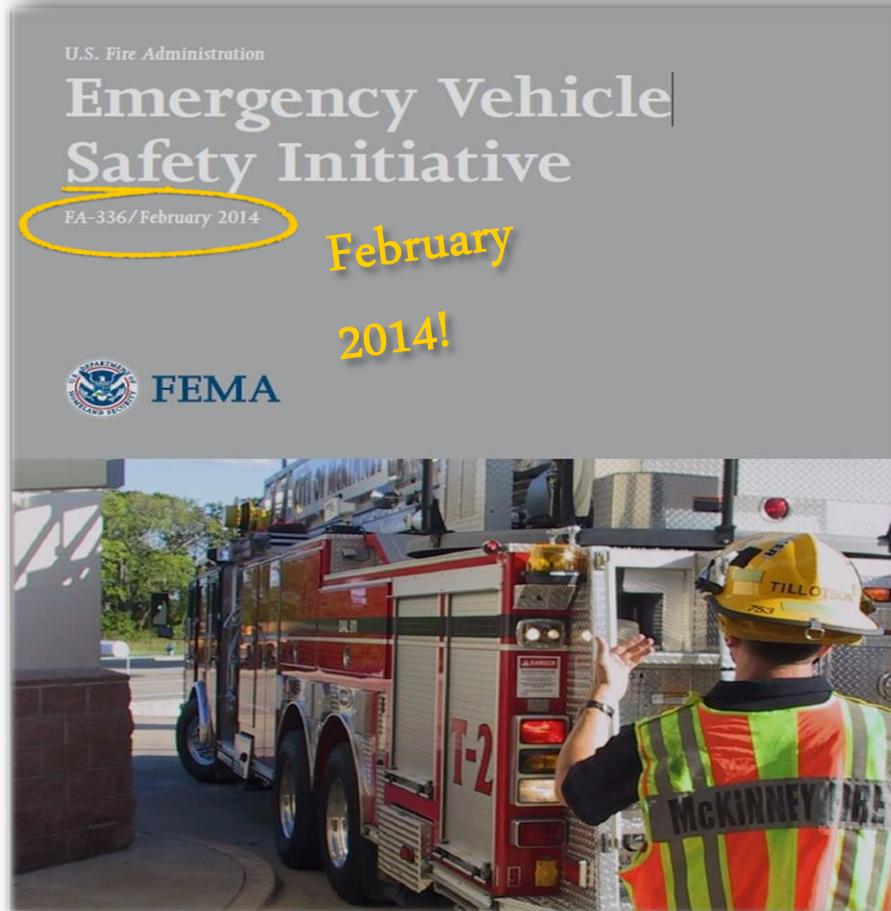
Source: FEMA

Source: National Highway Transportation and Safety Administration

Massive Number of Emergency Vehicles on the Road

- 798,000 Emergency vehicles (Police, Fire & EMS, DOT and Private Ambulance) in the United States.
- Average of three calls a day = 2,400,000 emergency vehicle calls per day. |
- This statistic doesn't include the 800,000+ Volunteer Fire personnel who respond to incidents in personal vehicles.
- NHTSA data estimates 6.3 million police reported traffic crashes per year or 17,250 per day – multiple responders can be at risk at each of these incidents

Federal Studies



**U. S. Department of Transportation
National Highway Traffic Safety Administration
Office of Emergency Medical Services (EMS)**



Lights and Siren Use by Emergency Medical Services (EMS): Above All Do No Harm

Author:
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Submitted by Maryn Consulting, Inc.
For NHTSA Contract DTNH22-14-F-00579



Data goes back to 1992 in these studies and yet most recent studies show no major changes in outcomes, so let's use new technologies to address these critical issues and save lives!

The Problem:

- Vehicle-related fatalities were the leading cause of death to U.S. law enforcement for 11 of the 12 previous years. (FEMA)
 - ❑ 39% of law enforcement officer deaths were vehicle-related
- Firefighters are more likely to die responding to an incident than during the course of an operation (FEMA 2014).
 - ❑ 25% of all fire service fatalities were vehicle-related. (FEMA)
 - ❑ 74% of EMS fatalities are transportation-related with an estimated 10,000 ambulance related collisions annually. (FEMA)
- DOT work site accidents occur every 5.4 minutes
 - ❑ 669 DOT work site fatalities in 2014-1.8 per day

Contributing factors and causes:

- Impairment & Distracted Driving – texting, browsing internet, phone calls, music and many things other than driving.
- Lights and sirens no longer effective or audible to drivers due to vehicles being designed to eliminate exterior noise.
- Lack of advanced warning to the driver of hazards ahead
- Navigation platforms like Waze can help, but are not focused on emergency vehicle safety alerting due to lack of real-time updates
- Many older vehicles are not Bluetooth enabled and many motorists choose not to use Bluetooth contributing to phone distraction
- Increasing traffic, congestion and road construction

Part of the Solution: MakeWay Alerting Technology

- The MakeWay Emergency Alert System is a *hands-free* technology that sends an audible warning to motorists in the path of/or approaching an emergency vehicle
- Emergency alerts *only* recognized devices that are in the path of/or approaching an emergency situation.
 - ❑ Technology recognizes approaching intersections.
 - ❑ Static users in proximity to safety zone are not alerted, eliminating annoying alerts to bystanders or those in building near the roadway
- Safety zone can expand beyond 2 miles based on the speed of the emergency vehicle and motorist vehicles on the roadway providing early warning alerts

MakeWay's Alerting Technology is a platform

- Multiple capabilities:
 - ❖ Dynamic: tracks rolling emergency vehicles and,
 - ❖ Static: transmits warnings for long-term work zones.
 - ❑ Technology allows emergency responders, DOT, utilities and municipalities to create a “virtual fence” around work and long term emergency zones alerting drivers to the situation and potential hazards
 - ❑ Technology has the ability to identify vehicles that have not altered speed and send additional urgent instructions as they near work zones.
- MakeWay is a patented technology that has been proven in multiple tests with first-responders and MoDOT.

Small MakeWay Transmitter Mounts in Each Emergency Vehicle

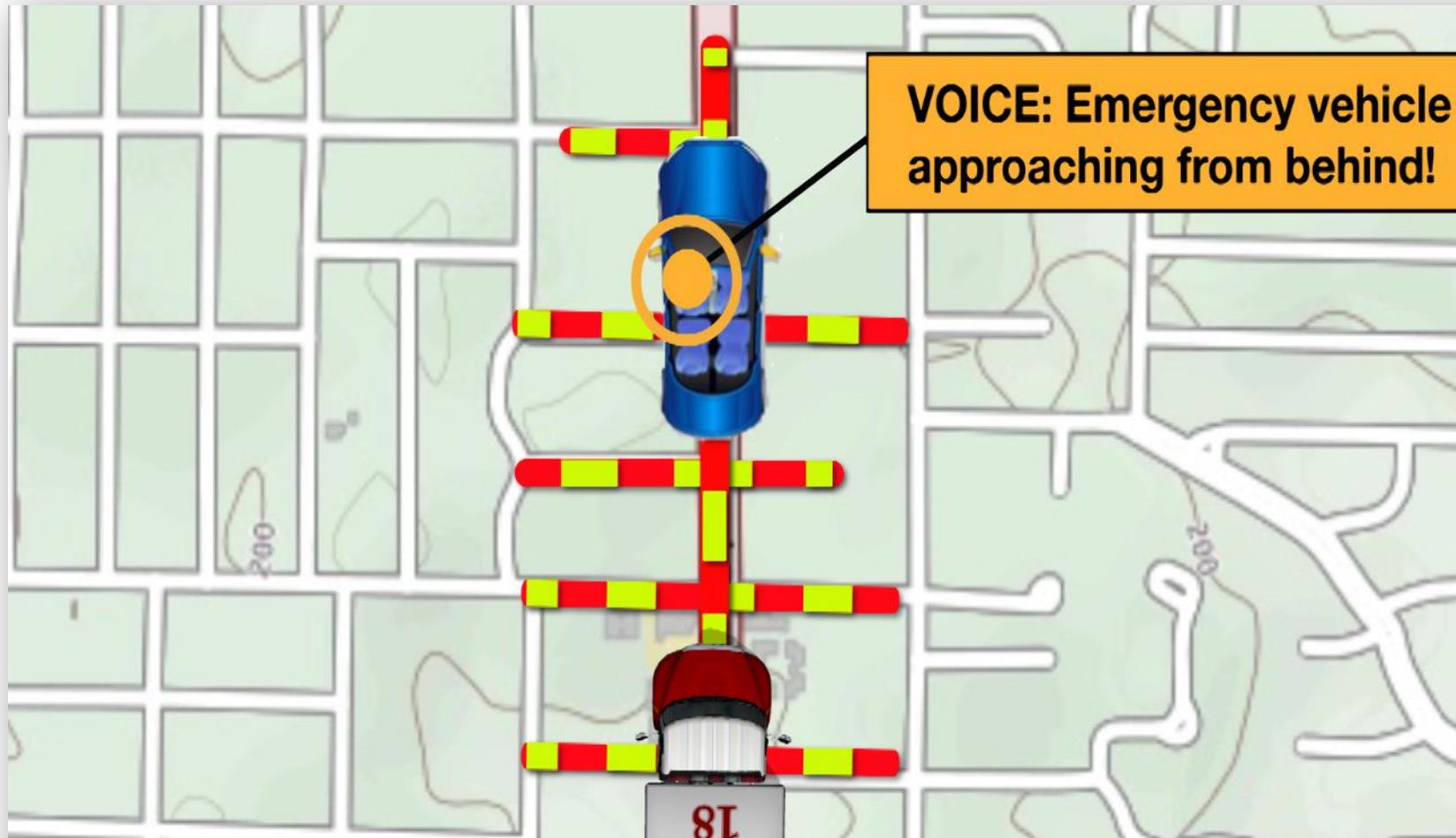


Hard-wired into the emergency systems of each vehicle, messaging automatically activates once emergency lights and sirens are activated.

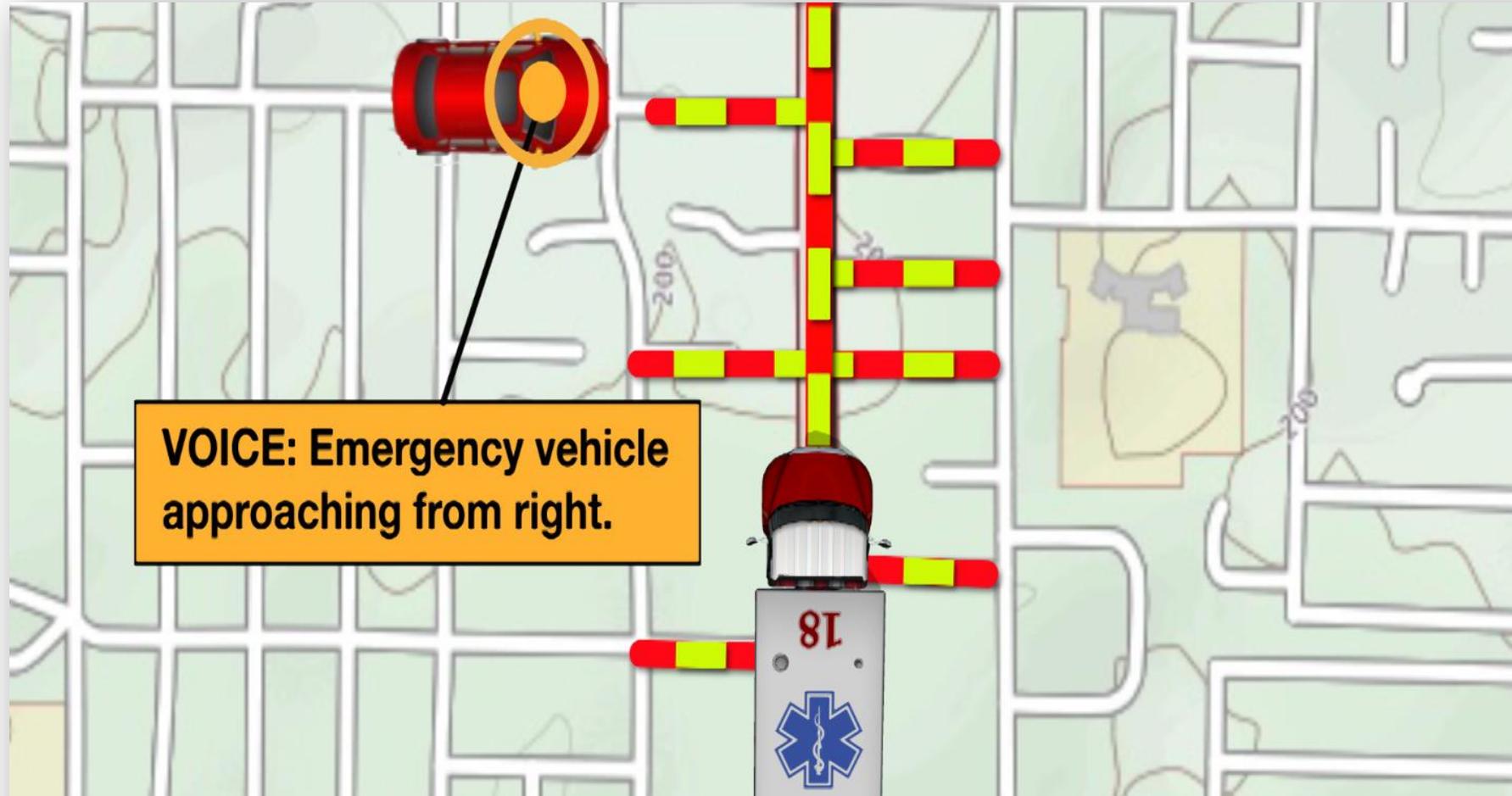
How MakeWay Works



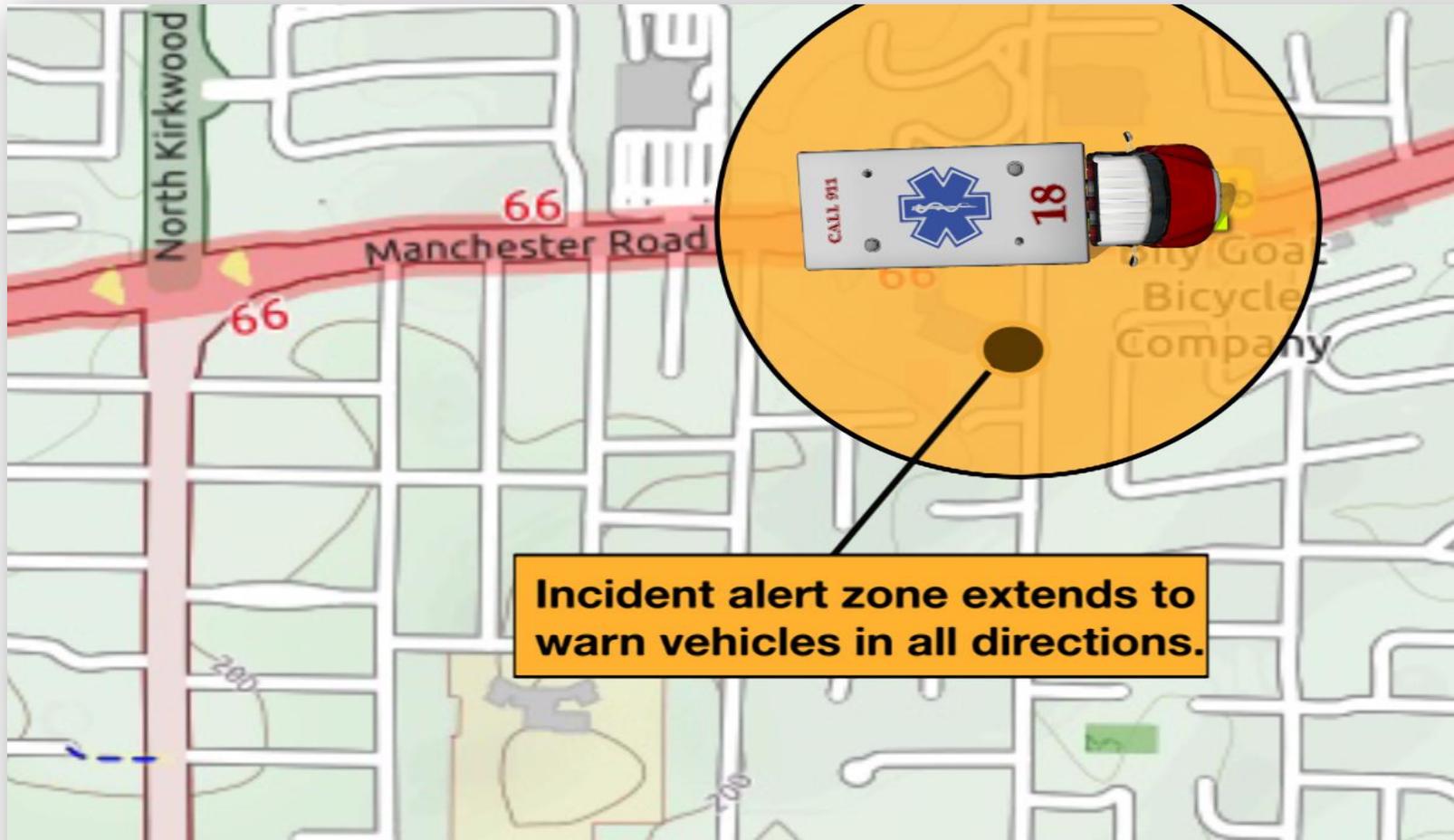
Alert Notifies Motorist in the Path of an Emergency Vehicle



Alerting distance adapts based on speed of vehicles approaching an intersection



MakeWay Creates an Incident Warning Zone for parked emergency vehicles.



Partnering to Save Lives

- To be most effective we need partnerships with Mobile Carriers (AT&T, Verizon, etc.) to provide ubiquitous capability to improve motorist situational awareness
- Partnerships with auto manufacturers to embed alerting technology into the connected car navigation/infotainment systems
- Legislators, government agencies, public safety officials, insurance, automotive and technology companies need to work together to save lives
- MakeWay is bringing together First Responders & DOT with mobile providers, Waze, Google and others to deploy this life saving alerting platform
- All of us have a mutual focus to save lives and improve motor vehicle safety on our roadways, especially for emergency responders working on our roadways

MakeWay's ask of all of you

- Spread the word on "Move Over" laws
- We must all practice it, live and preach it to family and friends
- Introductions to leadership in Federal and State agencies (USDOT, FEMA, State DOT's, auto industry, etc.) to make our roads safer using our technology.
- Help fight for access to Federal grants for First Responders & State DOT's to fund the deployment of the technology.
- Support legislation that requires emergency alerting technology to be implemented in all new vehicles and smartphones.
- Advocate with key stakeholders (Legislators, Auto Industry, Insurance, etc.) for mobile providers and auto manufacturers to deploy life saving technology to connected vehicles and smartphones.

MakeWay Solution Features/Benefits

Stakeholder	Feature	Benefit
<p>First Responders DOT Personnel Tow Operators</p>	<p>Low cost device transmits alerts when lights and/or sirens are activated. Easy to install and operate.</p>	<p>Dramatic reduction to in-route risk to personnel and assets. Vehicle personnel don't have to remember to engage service, automatic. Responders reach emergency faster/safer.</p>
<p>Motorist/General Public</p>	<p>Alerts received by phone, In-Vehicle systems, 3rd party navigation and other Mobile Apps like Waze, MakeWay, etc. Free to consumer.</p>	<p>Improves motorist road awareness. Allows improves motorist and reaction time. Allows motorist to choose alternate route.</p>
<p>Mobile Carriers</p>	<p>A solution for distracted drivers on the roadway. Ubiquitous Coverage. Public Safety Cloud and IOT based solution.</p>	<p>Supports campaigns for distracted driving. Reputational benefits with legislatures. Multiple revenue streams and device count growth</p>
<p>Insurance Carriers</p>	<p>MakeWay solution provided to Municipal clients and receiver software installed in insured vehicles</p>	<p>Alerts to motorist reduce life, injury and damage claims to both insured First Responders and motorists.</p>
<p>Emergency Management & Field Operations, State & US DOT, FEMA, DHS, Utilities, etc.</p>	<p>Ability to dynamically and instantly create a hazard zones with a perimeter of any size for short term or long term periods from any location/device or Command Center.</p>	<p>Establish a warning zone prior to responders arriving. Improve public safety with area wide warnings, tornado, flood, down utility lines, acts of terror, work zones, etc.</p>

In memoriam



Saves Lives

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