

The background features an aerial view of a city at night, overlaid with a network of white nodes and lines. Various icons are scattered across the scene, including a green hexagon with a car, a purple hexagon with a Wi-Fi symbol, a green hexagon with a laptop, a purple hexagon with a building, and a red hexagon with two human figures. On the right side, there is a large, dark silhouette of a person's head in profile, facing left. The right edge of the image is decorated with a diagonal split between yellow and blue colors.

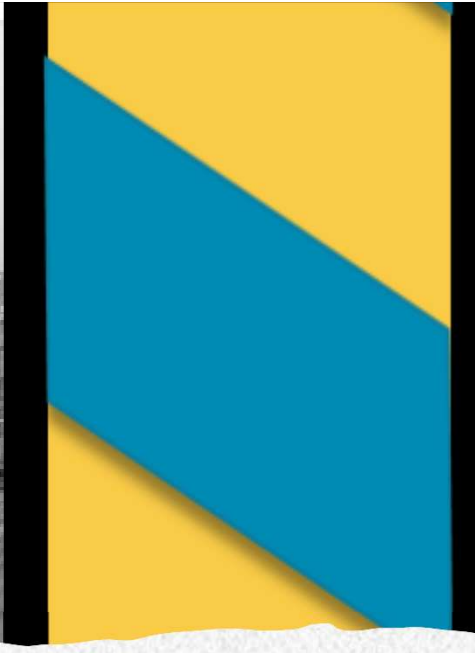
Redefining Safety Service Patrols into a Safe and Smart Communication Platform

ITS Heartland 2023

Alan Heathman
Incident Management Coordinator
Missouri Department of Transportation



Canal Street
1900



Canal Street
2023

Changing Times

Emergency Response and Safety Service Patrols **30** *Years*

New Halls Ferry Rd 1/4
Route 367 13/4
Bellefontaine Rd 23/4



Traffic Management is Evolving

Assisting stranded motorist

Weather-related Issues

Speeding

Crashes

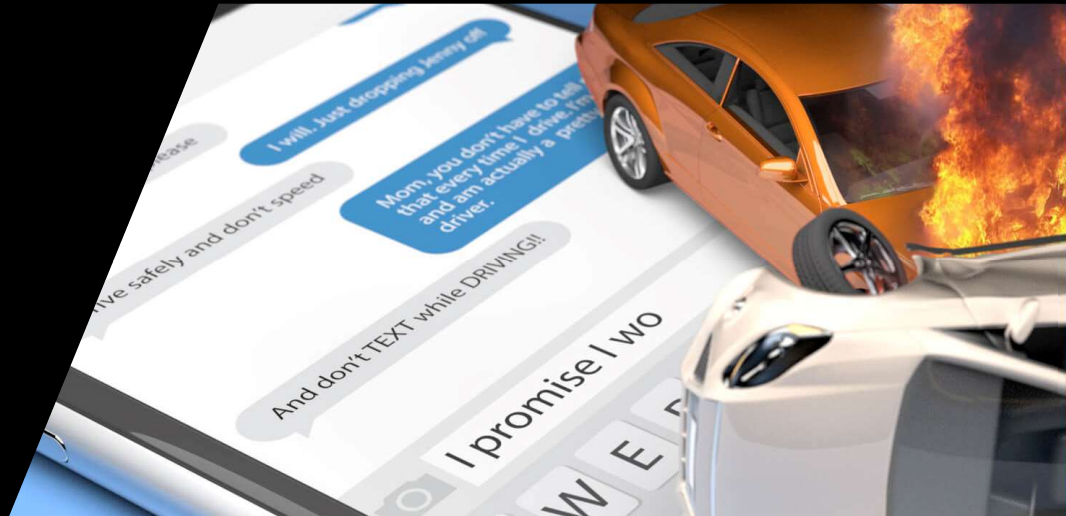
Road Rage incidents

Stunt Bikes/Racing

Shootings

Suicidal Individuals/Impaired Drivers

Civil Unrest/Protesters



What has changed in Safety Service Patrols

Tools

Truck / Service Vehicles

Uniforms

Radios

Lighting

Customer Interaction

Operational Guidelines



Technology in Safety Service Patrols



Proximity Support



Site Security



Communications

Support Systems



Operator Safety



Traffic Management

Vehicle Analytics





- Vehicle Status | Health
- Fuel Economy Monitoring
- Fault Alert Monitoring
- Vehicle Performance



Vehicle Analytics

Technologies that monitor both real-time and historical information collected on individual service vehicles used in evaluating current and long-term asset performance.



Proximity Support

Systems used in providing operators information about the immediate area surrounding a service vehicle, includes distance to nearby objects both stationary and moving as well as less observable safety impacts.

Perimeter Visibility

Space Intrusion

Environmental Sensors

On-board Apps





Traffic Diversion and Routing

Rapid Lane Management

Short-Term Management

Long-Term Management

Obstruction Removal

Traffic Management

Systems designed to facilitate efficient and urgent management of traffic and the flow of emergency vehicles around areas of need, while also supporting methods for the expedited removal of obstructions that can be hazardous to the public



Phones

Asset/Resource Location

Vehicle to Vehicle
Systems

Advanced Radio Systems

Mobile Data Platforms



Communications

Technologies used to move voice, data, and visual information more effectively between the field operators, vehicles, central operations, and the public.



Driver Safety

Technologies used to protect the health and safety of an operator as they perform Emergency Response duties



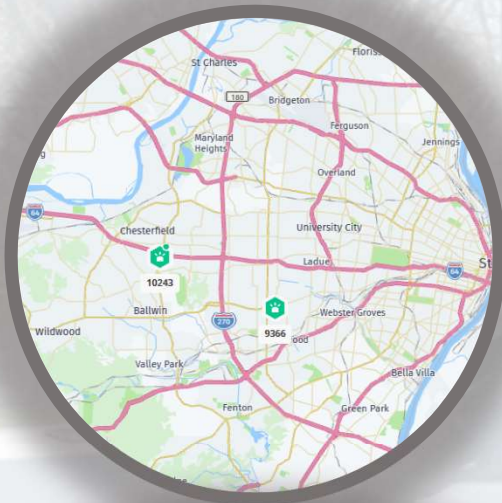
In-vehicle Systems

Excessive Speed

Driver Behaviors

Seatbelt Monitoring

Emergency Panic Alarms



Tools | Subsystem

Compressor

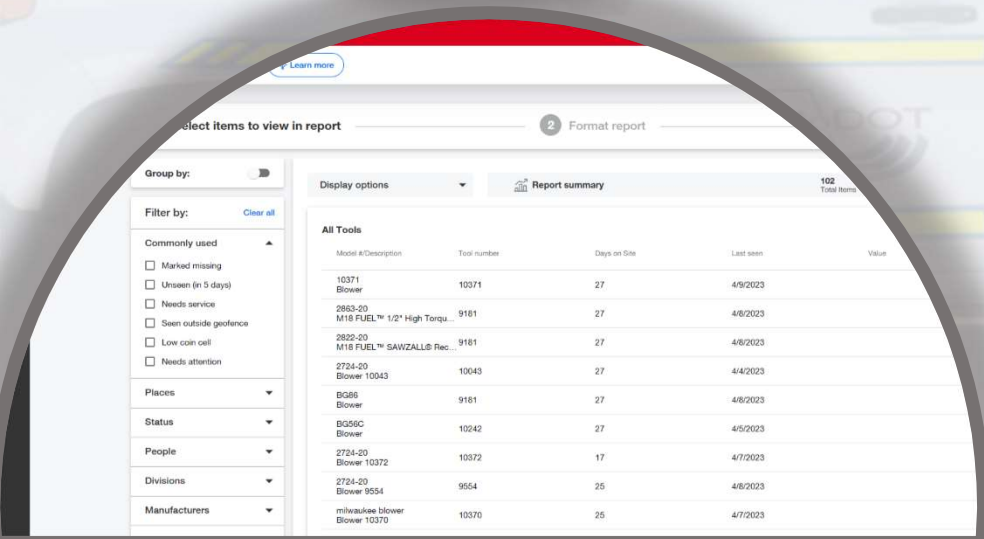
Power Systems

Tablet And Software
Systems



Service Support Systems

Tools and technologies that are independent from the Emergency Response vehicle but are used by operators to administer support to motorists, safety professionals, or additional team members



Imaging Systems

Obstruction Removal

Tools


Vehicle Protection



Site Security


Systems use to secure a incident or emergency scene allowing for safer response operations


Intelligent Response Vehicle


 **Communications**
Emergency Vehicle Alert System | [Haas - Stellantis](#)

Driver Safety 
Biometric Radios
Monitoring Operator Status | [Wireless Pacific](#)

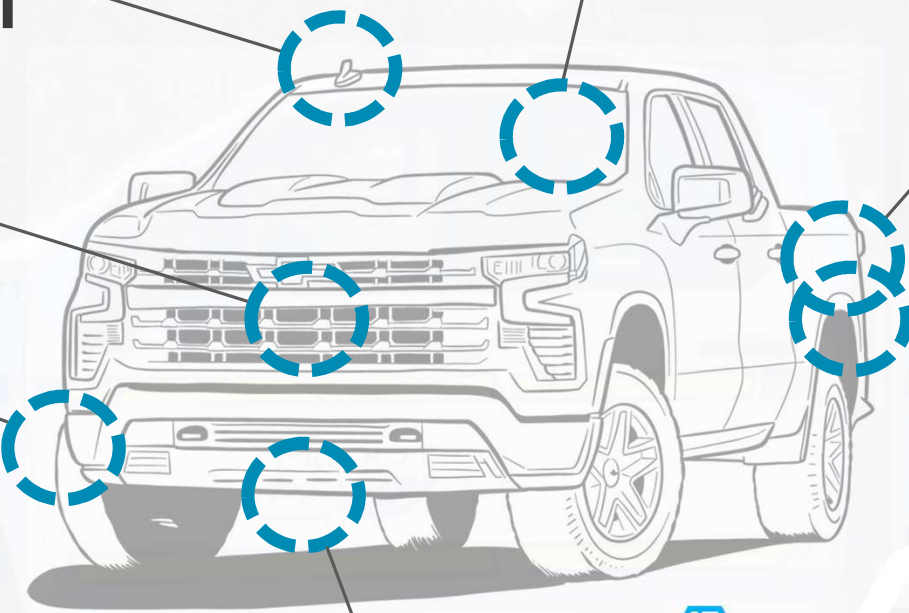
Support Systems 
Inventory Bluetooth Tracking System | [Milwaukee - One-Key](#)

 **Vehicle Analytics**
Vehicle Performance and Preventative Maint. | [GeoTAB](#)

Traffic Management 
Synchronized Traffic / Safety Lighting | [bluePRINT](#)

 **Proximity Support**
Wireless Radar Blind Spot Detection Systems | [Fleet Safe - Sensestat](#)

Site Security 
Suspended Particulates Sensor | [AirBeam](#)



Conclusion

Establish Framework for integration

Need to understand the impact
Technologies have on programs

Ensure investments are better
deployed as part of integration

Approach tech through a Holistic
View



Thank you...

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