

# Emercencynow

# Priority Vehicle Routing System





## What is **Emergency.now**?

Emergency.now is an ATMS.now (Advanced Traffic Management System) software module that integrates with your computer aided dispatch system (CAD) to provide safer and quicker response times for emergency vehicles. In Emergency.now, Trafficware pioneered the concept of utilizing dispatch data from the CAD along with GPS and Automated Vehicle Location (AVL) data interfaced with a proven ATMS system. The result is performance unmatched by any other solution available, providing priority traffic signal service during signal coordination for emergency vehicles.

Because Emergency.now is ATMS based, it has visibility of the entire response route from the moment the emergency vehicle is dispatched. At that moment, it begins clearing intersections of vehicles using priority signal operation well in advance of the arrival of the emergency vehicle. By the time the emergency vehicle reaches each intersection, it has been flushed of traffic, allowing safe and rapid progress.

In addition to safer and quicker response times, because the system uses priority signal

operation, it also maintains coordinated traffic flow on roadways along the emergency route. This minimizes the disruption to cross street traffic, even as emergency vehicles experience green signals while on route to an incident.

# How does it work?

Trafficware provides priority service during coordination, and also extends priority service within free operation. Emergency.now relies on calculations performed within the local controller - phase reduction and extension times provide an early return to green or extend the green for the emergency vehicle phase. The system operator can vary the priority parameters by timing pattern and time-of-day.

Emergency.now receives GPS-based location data from units as they are dispatched and uses algorithm-derived predictive travel times to flush traffic through intersections along the route before the emergency vehicle arrives. Computer Aided Dispatch

Emergency vehicle status and location progress can be monitored centrally as the system receives continuous updates from the CAD.

This proactive approach provides a less congested traffic environment, one that is continuously moving and results in safer travel for emergency vehicles, reduced incident response times, and minimal interference with the motoring public.





Clears traffic from intersections and roadways prior to the arrival of emergency vehicles.



## Achieve Faster Emergency Response Times

The Trafficware priority vehicle routing system gives traffic flow priority to motoring public vehicles traversing a route between an origin and an incident. By extending green and thus reducing traffic congestion on the selected route, so emergency vehicles can respond to incidents faster.

## **Minimize Impact to Surrounding Traffic**

Emergency.now merges with Trafficware's ATMS.now platform to maintain coordinated traffic flow on right-of-ways along the emergency route. Cross streets are minimally impacted by coordinating traffic flow, even as emergency vehicles experience green lights during their route. As traffic signal timing is dynamically adjusted, drivers on adjacent and oncoming right-of-ways operate normally without disruption. In contrast to Emergency.now's method of operating within a signal priority mode, full signal preemption creates an element of chaos at the intersection. Motorists sitting at a red signal for an extended duration grow impatient, and can act unpredictably and unsafely. Emergency.now operates in the fashion motorists expect, and while they may get a shorter than normal green phase, the intersection maintains normal traffic signal sequence. A system that operates as motorists expect reduces the risk of motorists growing impatient and responding in a way that would interfere with emergency vehicles.



## Leverage Existing Infrastructure While Planning for the Future

Trafficware's priority vehicle routing system integrates with and leverages all the technology available, including the ATMS, controllers, GPS-based AVL devices, and CAD applications. This provides a holistic and effective, yet cost-efficient solution. With Emergency.now, there is no additional hardware for the vehicle or intersection to purchase, install, or maintain.

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## Typical Approach

#### **Optical and Vehicle-Based Preemption**

- Independent system from Traffic and CAD systems
- Additional hardware required
- Can only control traffic signals within limited distance
- Interrupts Normal Operation and Coordination and still doesn't guarantee a clear intersection
- Takes several cycles to recover from interruption (5-10 minutes)
- Requires equipment installation and maintenance at intersections and emergency vehicles

## Trafficware

### **Central Priority Control**

- Integrates with other state-of-the-art systems
- Transitions signals while in coordination (no skipping)
- No Optical or Field equipment required uses a closed system
- Can centrally modify signals for entire route, removing the "snowplow" effect caused by heavily congested routes
- Creates a safer environment for the motoring public and emergency vehicles

### **Features**

- Full GIS-based, real-time display of routes and vehicles
- Priority request initiated from central rather than from field devices
- NTCIP 1211-based priority control strategy
- No additional intersection hardware needed
- Full reporting capabilities

## ABOUT TRAFFICWARE

Trafficware specializes in researching, designing, and developing electronic equipment and enterprise software designed to enhance the transportation industry. Our industry expertise comes from:

- 1. Hands on experience attained while solving traffic management challenges across the country since 1979.
- 2. Our in-house team including: Professional Traffic Engineers, Hardware and Software design and development staff, Manufacturing Personnel, and Customer Service/ Field Application Engineers.
- 3. Regular dialogue with our customers to address their real-world operational issues and future traffic management requirements.

Trafficware manufactures a full line of traffic equipment in its 90,000 square-foot technology center located in Sugar Land, Texas. In over three decades of manufacturing in the USA, our products have earned a reputation for unmatched guality and reliability.

