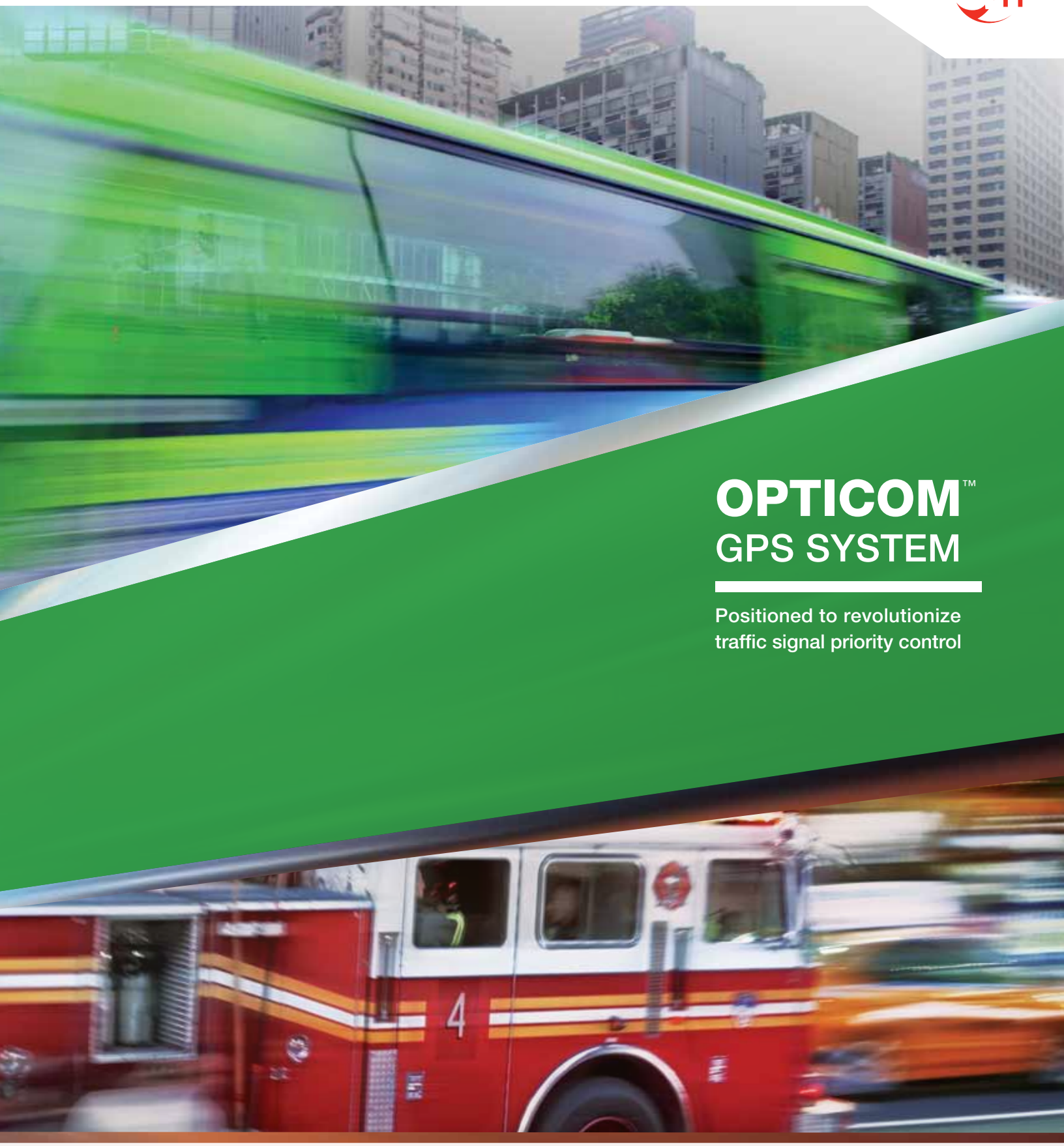
GLOBAL TRAFFIC TECHNOLOGIES



OPTICOM™ GPS SYSTEM

Positioned to revolutionize traffic signal priority control

BUILDING CRITICAL TRAFFIC CONNECTIONS

Faster, safer emergency vehicle preemption and transit signal priority

Featuring global positioning system (GPS) technology and highly secure radio communications, the Opticom™ GPS System is the next generation of signal preemption and priority control. GPS offers unmatched precision and superior management capabilities to give traffic engineers more control of intersections — and emergency responders and transit drivers more control en route to their destinations.

Emergency: When every second counts

Response times and risk mitigation are critical in the emergency services world. The Opticom™ GPS System provides unique, precise control that anticipates vehicle movement and helps responders reach their destinations as quickly and safely as possible.

- Reduce intersection crash rates by up to 70 percent.*
- Improve response times by up to 25 percent.*
- Avoid line-of-sight conflicts to clear right-of-way around corners.
- Activate signal preemption based on estimated time of arrival (ETA) or distance.
- Manage authorization automatically based on vehicle priority and first come, first served.

Operations: Manage, monitor and maintain traffic flow

Designed for efficient installation and compatibility, the Opticom™ GPS System helps the people who manage intersections as much as it helps those who go through them. It incrementally adds value to legacy signal preemption systems. Plus, it supports both emergency and transit services — with separate priority levels for signal preemption and priority — making it ideal for the next wave of traffic management technology.

- Receive information from all directions via single intersection radio/GPS unit.
- Accommodate hills, curves and extended distances without additional detectors.
- Experience complete interoperability with most traffic controllers.
- Facilitate configuration, monitoring and diagnosis and produce system reports.
- Streamline installation, maintenance and traffic flow in real-time.

Transit: Happier riders — a healthier environment

The Opticom™ GPS System enables transit vehicles to maintain schedules and progression — crucial factors to attract new riders and retain a loyal customer base. Improving route timing by 10 percent or more can help you significantly reduce fleet needs.*

- Reduce traffic delays by up to 40 percent by extending green signal cycles.*
- Minimize fuel costs up to 19 percent and greenhouse gas emissions up to 30 percent.*
- Integrate GPS easily to industry standard applications and onboard devices.
- Enhance traffic signal reporting with accurate vehicle identification data coding.

* References available upon request

Increase safety, exceed service levels, enhance efficiencies

Establishing a transportation network that uses interoperable technology requires a coordinated effort between multiple agencies within the city and throughout the region. These critical connections help communities plan, fund and implement Opticom™ GPS Systems to increase efficiencies and provide safer intersections.

Opticom™ GPS — combined with Opticom™ Central Management Software (CMS) — enables traffic management personnel to manage proactively, emergency responders to reach the scene faster and safer and transit services to maintain schedules while cutting costs.

How it Works

When an emergency vehicle responds to a 911 call or a transit vehicle needs to pick up time, the Opticom™ GPS System is positioned to improve efficiencies:

1. Using a global network of GPS satellites, Opticom™ GPS System vehicle equipment calculates vehicle speed, direction, longitude and latitude information.

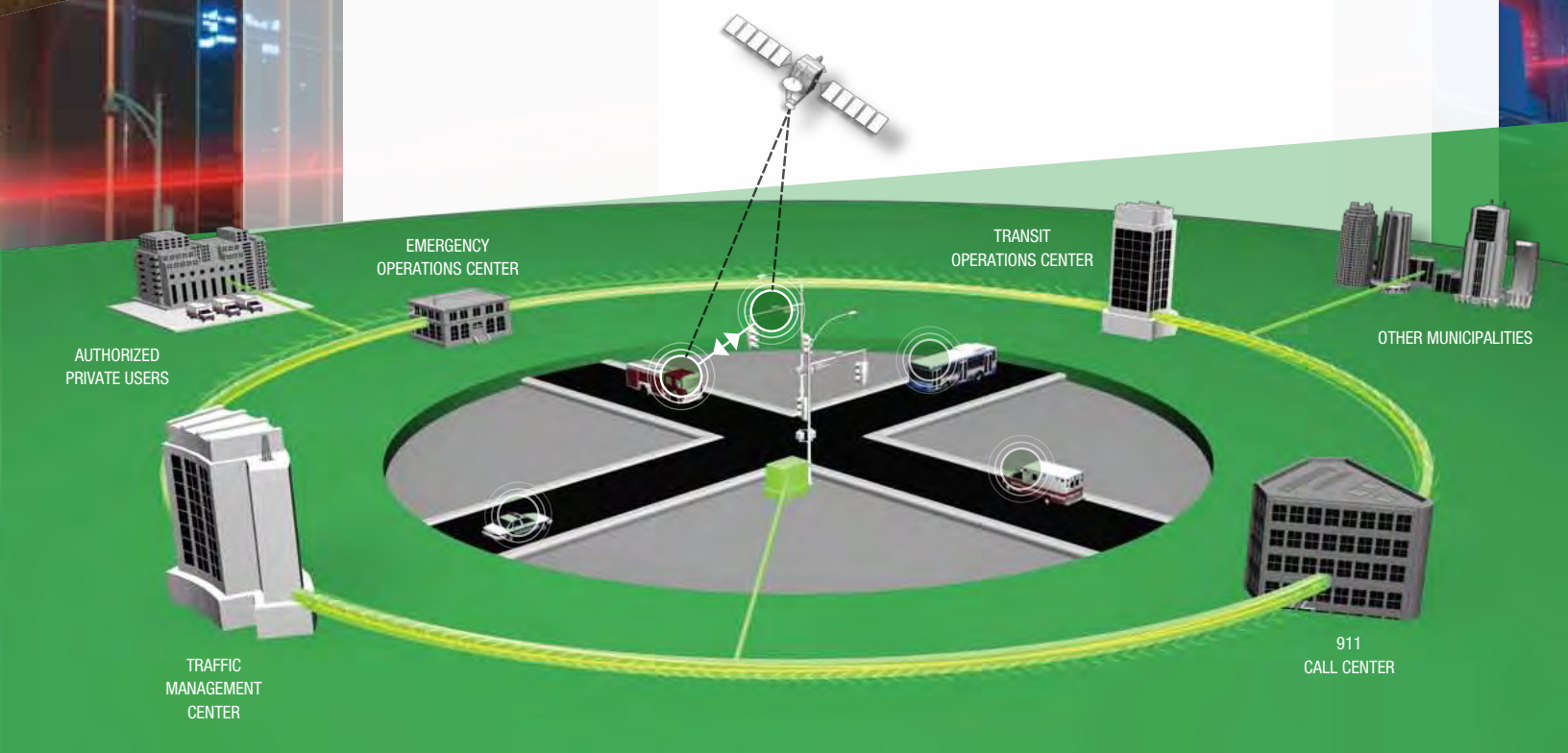
2. Intersection equipment is programmed with an approach map to define corridors for priority control activity.

3. As the vehicle enters the intersection's radio range, it sends updated speed, position and identification information, as well as turn signal status, every second.

4. The Opticom™ GPS System intersection equipment sends the priority request to the Opticom™ GPS Phase Selector in the controller cabinet, which requests a green light through normal controller functions.

5. The system recognizes the activated turn signal and relays the priority call forward to the next appropriate intersection.

6. All of the activity can be tracked remotely by traffic management personnel.



The smart way to get the green

As the world grows busier and more crowded, it's critical that we continue to find new, better ways to manage our roadways and revolutionize traffic management and safety. The Opticom™ GPS System is designed specifically to enhance efficiencies for emergency vehicle preemption and transit signal priority. It uses radio transmission and GPS positioning to avoid line-of-sight conflicts and trigger signals for expedited signal preemption to enable faster, safer passage through intersections.

When integrated with Opticom™ Central Management Software (CMS), the innovative GPS-based system allows traffic management personnel to effectively manage intersection activity remotely. It can be used to identify abuse, gauge execution and improve service to meet your traffic management expectations. Protected by an industry-leading warranty and a full range of installation, training and setup services from the industry's market leader in traffic management systems, the Opticom™ System Technology offers optimal long-term performance.

Proven Solutions from the Industry Leader

Global Traffic Technologies, LLC (GTT), formed in 2007 from 3M's pioneering Intelligent Transportation Systems business, is the manufacturer of Opticom™ priority control systems and Canoga™ traffic sensing systems. Headquartered in St. Paul, MN, GTT is the market leader in traffic management systems, having an installation base of over 60,000 intersections in over 1,500 cities worldwide.

For more information about the Opticom™ GPS System, contact your GTT systems consultant, visit www.gtt.com or call 800-258-4610

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