EMTRAC

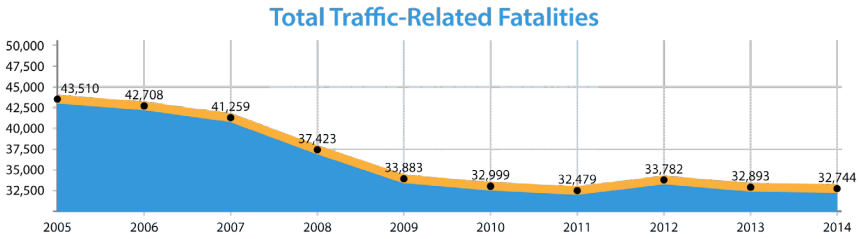
Pedestrian Detection & Signaling System

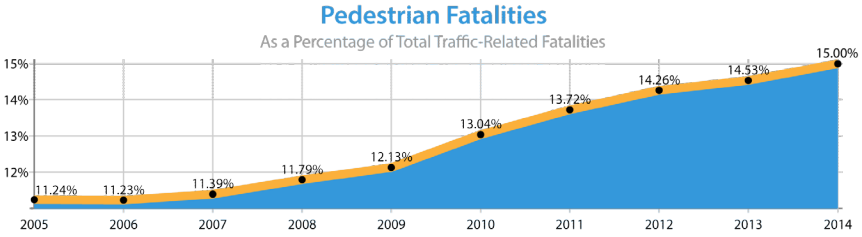
Pedestrian Safety

While the number of traffic fatalities has decreased in the past ten years, the number of *pedestrian fatalities* has actually *increased*—highlighting an area of where significant improvement can be made. Additionally, the majority of pedestrian fatalities occur at *non-intersections* (71%) versus intersections with pedestrian crossings (19%).

The EMTRAC System provides a non-intrusive way to enhance signaling and encourage crosswalk usage—both key elements for increasing safety and accessibility.

The EMTRAC System does not require costly intersection-hardware installation and can utilize NTCIP protocol to enable communication with traffic controllers.





**Data provided by the U.S. National Highway Traffic Safety Administration (NHTSA)*

Pedestrian Accessibility

As cities strive to achieve compliance with the Americans with Disability Act (ADA), many intersections still fall short. The ADA requires that State and local governments "communicate effectively" with people who have communication disabilities, and provide "auxiliary aids and services" when needed to communicate effectively with people who have disabilities.

The EMTRAC Pedestrian app is designed as an *auxiliary aid and service* to enable people with vision, hearing, or speech disabilities to recognize pedestrian signals and request crossing signals.

EMTRAC Pedestrian App

www.emtracsystems.com

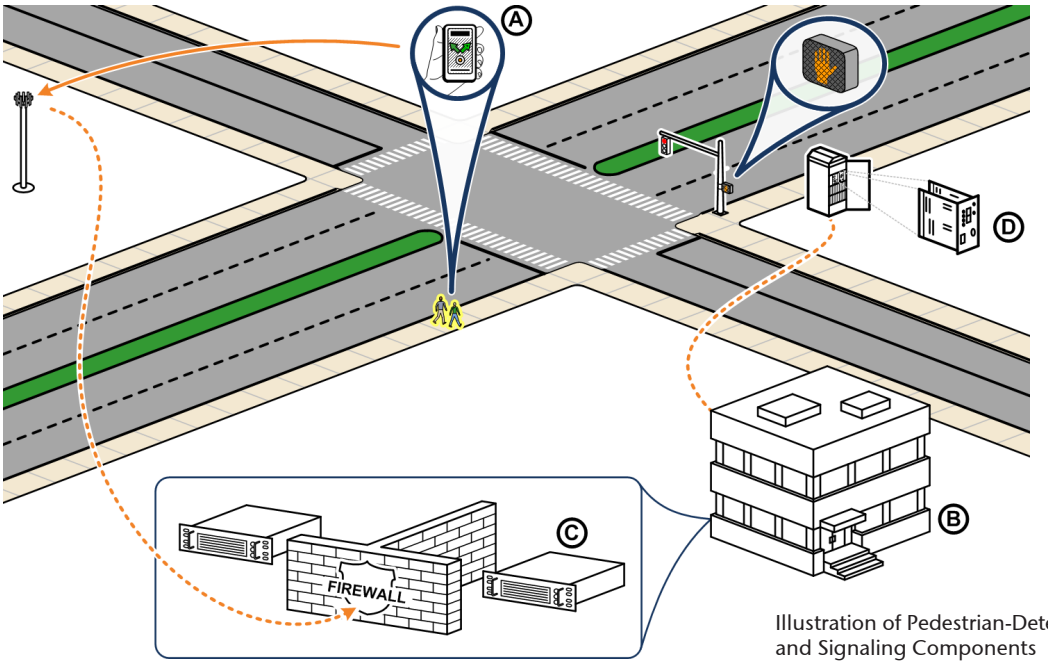


Illustration of Pedestrian-Detection and Signaling Components

Pedestrian-Detection System Components

A. **Mobile Device & App**: Installed on mobile devices, the cross-platform-capable Pedestrian app provides secure communication with intersections through the firewall-protected data center. The app interacts through either *visual/touch* commands or *verbal* commands (with user-defined keywords). It also adapts to different languages, dialects, accents, and clarity of speech.

B. **Data Center**: Provides a firewall-protected transfer point for relaying data between mobile devices and traffic controllers (if using NTCIP) or Priority Detectors (if used with other EMTRAC applications, such as TSP/EVP). Servers include EMTRAC software for data processing and qualification.

C. **Central Monitor Software**: Remotely displays a map with real time intersection and vehicle activity, logs detailed activity data, and records any changes in network-communication status.

D. **Priority Detectors (optional)**: These units receive pedestrian-request signals and output this data to traffic controllers. The same detectors are used for Transit Signal Priority (TSP), Emergency Vehicle Preemption (EVP), and bicycle detection. *When using NTCIP, pedestrian-request signals are sent directly to the traffic controller and Priority Detectors are not required.*

Pedestrian-Detection System Specifications

Server Requirements

Processor: Dual or Quad-Core, 2 GHz
Memory: 8 GB or higher
Hard Drive: 500 GB, Hot-Plug, RAID Controller
Operating System: Windows Server 2003 or later
Network: Ethernet 100Base-T/1000Base-T (gigabit preferred)

Detector Unit

Unit Power: 12ft, 120VAC, NEMA-Rated Power Cable In Braided Sleeve w/ AC Plug and Pigtails
Comm. Ports: (2)-100 Base-T Ethernet Ports (NTWRK & LOCAL), (1) USB Mini-B, and (1) Serial (RS-232)
Dimensions: Rack-Mount: H-4.5” (11.5 cm) x W-2.3” (6 cm) x D-6.95” (18 cm)
Detector In Enclosure: H-5.25” (13.5 cm) x W-2.75” (7 cm) x D-8” (20.5 cm)
Enclosure Material: Aluminum, NEMA Rated

*Specs fit specific models, but are included as representative figures only. Specs vary by model.

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