



# Pedestrian Safety

Dramatically increase safety for vulnerable road users

YUNEX  
TRAFFIC

A Siemens Business

# CV Cooperative Perception: Pedestrian Safety

As cities have more cars and pedestrians on our urban streets than ever before, pedestrian fatalities are on the rise. According to the Governors Highway Safety Administration (GHSA), pedestrian fatalities in the US have increased by more than 60% since 2009. On average, 1/3 of all traffic fatalities in cities are pedestrians, making it essential to implement solutions that make vulnerable road users more visible to motorists.

Yunex Traffic's solutions aims to make your city streets safer with a combination of detection sensors mounted along crossing areas which work with [connected vehicle technology](#) to provide drivers with advanced pedestrian warnings to reduce the number of incidents.

Yunex Traffic Road Side Units (RSUs) provide a direct data interface to [Bosch IP video cameras](#) with on-board intelligent analytics which provide accurate detection of pedestrians approaching a crosswalk or in the road and then sends that information to the Yunex Traffic RSU. The Yunex Traffic RSU then instantly sends a pedestrian safety message to vehicles equipped with connected vehicle technology

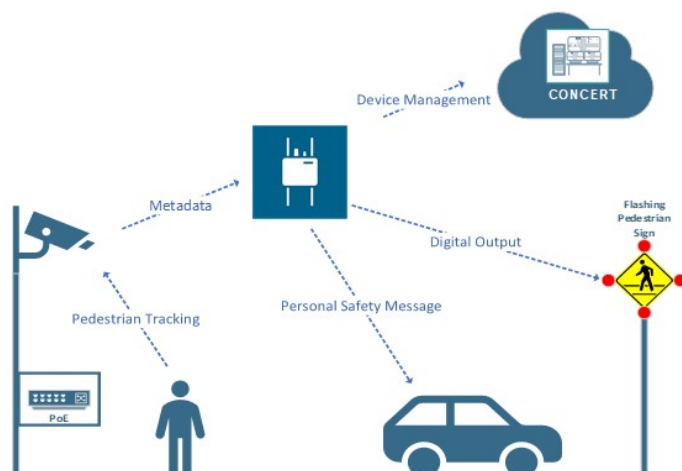


## Installation

Both the Yunex Traffic RSUs and Bosch cameras are powered using PoE and are easily connected to the same switch in the traffic cabinet. No other devices are required to be installed to make the system functional.

## System Details

Using a browser-based user interface, an operator configures the camera connection, the PSM message trigger event and Personal Safety Message (PSM) template. Once a pedestrian is detected, the Bosch IP camera sends metadata which includes the object ID and classification, the geospatial coordinates, and the speed of pedestrians. The RSU calculates the heading based on the coordinates. Using this information, the RSU populates the defined PSM template and sends it over via V2X communication. The Onboard Unit in the equipped vehicle receives the PSM and warns the driver of the pedestrian. At the same time the RSU can activate a flashing beacon.



Tampa, FL is at the forefront of implementing vehicle-to-infrastructure technology. Read how Yunex Traffic helps Tampa keep moving, improving safety and reducing greenhouse gas emissions.



**Yunex Traffic, A Siemens Business**

9225 Bee Cave Road  
Building B, Suite 201  
Austin, TX 78733

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