

# Proactive measures

Effective incident detection is key to keeping highways safe, critical infrastructures secure and traffic flow fluid. The SMART SunGuide TMC in Fort Lauderdale is the perfect showcase for the benefits of this technology

**T**ransportation agencies worldwide are facing the same issues when it comes to managing traffic. As congestion increases, any unexpected incident is likely to create serious problems if not cleared immediately. Traffic managers are working with ambitious goals in relation to reducing fatalities and Homeland Security has also raised the stakes of monitoring critical road infrastructures.

Video-based incident detection systems can be used to transform traditional traffic cameras from passive monitoring devices to proactive detection tools.

The SMART SunGuide TMC is the communication hub for traffic information along I-95, I-595, and I-75 in Florida's Broward County. Operating continuously, the TMC's mission is to provide proactive countywide incident management, which is why the center decided to equip its 45 PTZ cameras with a Citilog VisioPaD system.

The VisioPaD provides traffic operators with an audible and visual alarm within seconds of an incident taking place, much more quickly than conventional monitoring.

Quick response greatly reduces incident duration and therefore the average delay induced by an incident or an accident, making video-based incident detection systems extremely valuable tools in the fight against non-recurring congestion. At the same time, the risk of creating multiple accidents is also reduced using VisioPaD.



As congestion grows, traffic managers worldwide are realizing the need for proactive detection

## PLUG AND DETECT

As it does not need any setup or calibration, it fits straight into any existing system without the need for extra cameras. Automatic recalibration means that those existing cameras can be repositioned at any time. Another benefit is that the system can directly process the digital video streams (IP video) and does not require decoders.

Deploying VisioPaD on existing cameras can reap many rewards. It is widely recognized that unpredictable events such as stalled vehicles account for half of all congestion on highways. Such non-recurring events dramatically reduce the available capacity and reliability of the entire transportation system. Although a number of those incidents cannot be avoided, quickly reporting and addressing an incident will

decrease the duration of incidents, thereby reducing their impact on driver delay.

The system identifies a stopped vehicle within 20 seconds. It enables TMCs to scale the size of their operations (i.e. the number of cameras) without increasing equipment (videowalls, etc) and without increasing the numbers of personnel needed to operate the facility, allowing operators to concentrate on incident management rather than incident detection. By providing visual information in the form of video clips or snapshots, the system enables operators to better understand and respond more efficiently to incidents. These benefits have been evaluated and VisioPaD has a cost/benefit ratio of 27:1 when deployed on existing cameras.

A combination of new technologies such as wireless data transmission, solar energy and low-consumption RSE now enables agencies to deploy video-based detection systems over long stretches of roadways, creating what can be literally termed an intelligent highway. The Henan province in China deployed over 300 VisioPaD units in 2007 alone, while the Central Artery project in Boston will equip over 200 of its cameras in the next quarter. ■



VisioPaD detects accidents on the highway and can identify stopped vehicles within 20 seconds

To find out more, please contact Citilog at +1 215 609 4945, email [citilogusa@citilog.com](mailto:citilogusa@citilog.com), or visit the company's website at [www.citilog.com](http://www.citilog.com)