

Next-Generation Traffic Incident Management



Local Programs



Training



Data



Technology

Header Photos Source: Enforcement Engineering, Inc

VIDEO SHARING TECHNOLOGY ENHANCES TRAFFIC INCIDENT MANAGEMENT

A picture is worth a thousand words, especially in the traffic incident management (TIM) world, where images from the scene can help responders and transportation management center (TMC) operators alike. Video sharing allows responders to better plan their response, which ultimately improves safety and promotes safe, quick clearance.

Responder Vehicle to TMC Images

Transportation agencies around the country are installing pan, tilt, and zoom cameras on safety service patrol vehicles to supplement roadway closed-circuit television (CCTV) cameras. Securely affixed and housed in weatherproof structures, the cameras send images from traffic incident scenes in real-time to TMCs via high-performance cellular technology. The images allow TMC operators to observe on-scene vehicle damage, infrastructure damage, traffic impacts, and more.

Typically, the camera is controlled from the TMC, which allows the service patrol operator to maintain focus

on safety and their on-scene duties. Pan, tilt, and zoom are simplified by presets, and the cameras are powered through the vehicle ignition.

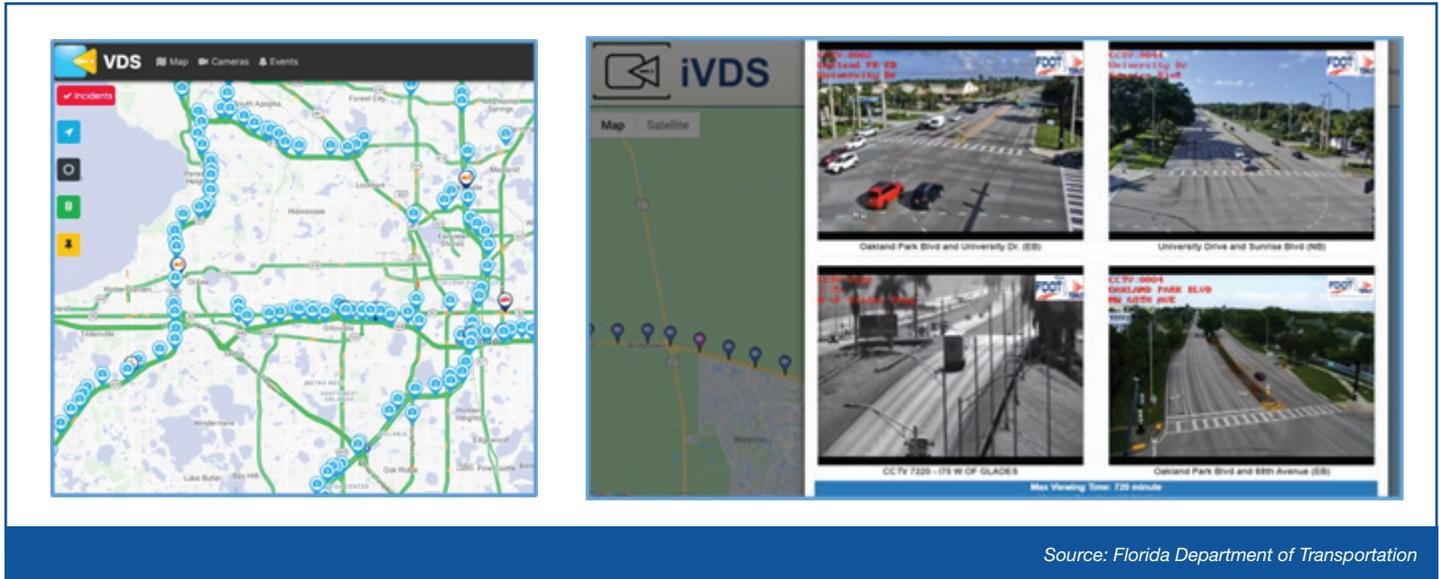
One of the benefits of this approach is that, unlike a fixed camera, the pan, tilt, and zoom cameras can be used just about anywhere that the safety service patrol vehicle operates. Additionally, the global positioning system (GPS) location that accompanies the installation provides an element of driver safety and location verification that may not otherwise be present. Pan, tilt, and zoom camera installations cost approximately \$17,000, and tend to cost less than fixed camera installations.

Agencies have found that video from incident scenes is also beneficial for after-action reviews, responder training, and, in rare cases, evidence documentation. A short overwriting loop approach avoids record retention, limits storage, and eliminates public records requests, all of which are typically documented in agency policy.



Source: Maryland Department of Transportation

A camera mounted on a responder vehicle (left) and the captured video (right) sent to the TMC.



Source: Florida Department of Transportation

TMC to Responder Vehicle Video Sharing

Many transportation agencies have CCTV cameras installed on roadways to monitor roadway conditions, traffic, and incidents. Images are often shared with the media, and sometimes with the public, through a 511 website or similar system.

Custom software applications have been created that allow responders in the field to log into web services and get high-quality TMC images from any camera in a geographic area. Multiple camera views can be combined to build a custom “video wall” on a responder’s computer. This type of video sharing enhances the ability of responders to evaluate incidents, plan their response, and identify the need for additional resources.

State of the Practice

- ▶ The Maryland Department of Transportation’s Coordinated Highways Action Response Team (CHART) has installed cameras on most of their service patrol vehicles and found it to be beneficial for supplementing fixed camera installations.
- ▶ The Florida Department of Transportation developed an application that allows responders to access TMC video images in their vehicles through a secure login. Responders can monitor their coverage areas by selecting specific camera locations and building a custom video wall.

Resources

[FHWA EDC-6 Next-Generation TIM](#)

The contents of this fact sheet do not have the force and effect of law and are not meant to bind the public in any way. This fact sheet is intended only to provide clarity regarding existing requirements under the law or agency policies.



U.S. Department of Transportation
Federal Highway Administration

Paul Jodoin
FHWA Office of Operations
(202) 366-5465
Paul.Jodoin@dot.gov

James Austrich
FHWA Office of Operations
(202) 366-0731
James.Austrich@dot.gov

Joseph Tebo
FHWA Office of Operations
(202) 366-9242
Joseph.Tebo@dot.gov