

# VIP-PTZ

## AUTOMATIC INCIDENT DETECTION ON PTZ CAMERAS



### MAIN GOALS

- Improve highway security & mobility
- Increase traffic operations efficiency
- Optimize traffic infrastructure investments

### APPLICATION AREAS

- Hard shoulder monitoring
- Highway incident detection
- Roadwork safety

VIP-PTZ has been designed to add **automatic incident detection** to **pan-tilt-zoom cameras** in order to improve road safety and mobility. VIP-PTZ is a cost-effective and reliable solution that combines the benefits of video-based incident detection with state-of-the-art **video streaming** and serial communications for **camera control**.

Traficon's VIP detector boards are improving safety and efficiency on highways, bridges and in tunnels all around the world. Incidents can be identified very soon, avoiding further secondary accidents and minimizing traffic delays by shortening service intervention times.

Traficon's VIP-PTZ processing unit combines **five functions** in one, all dedicated to intelligent highway monitoring:

- **Queue detection:** detect traffic density in a global field of view
- **Automatic Incident Detection:** automatically detect stopped vehicles on the road and / or hard shoulder
- **Video encoder:** video streaming over IP network using H.264 / MPEG-4 compression
- **Serial server:** remote control of PTZ cameras over IP network
- **Digital input & output:** remote inputs and control of third party infrastructure over IP network such as warning signs or VMS panels.

# Incident detection for highways and bridges

## AUTOMATIC INCIDENT DETECTION



### GOAL:

- Support traffic operators with automatic incident detection

### SOLUTION:

- VIP-PTZ automatically learns the road situation regardless of camera position
- Stopped vehicles are reported to the operator
- The operator can zoom into the incident area

### RESULTS:

- Improved safety

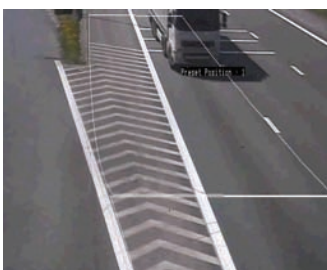
## INTELLIGENT AUTOCONFIGURATION

A Traficon VIP-PTZ detector board analyzes the video from a Pan-Tilt-Zoom camera and automatically detects the road and traffic. This allows for automatic incident detection in any random position of such cameras.



## PRESET SCAN

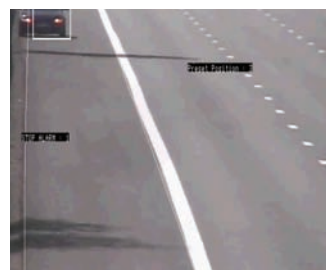
While a Pan-Tilt-Zoom camera scans the hard shoulder through a number of preset positions, the Traficon VIP-PTZ detector analyzes the image for unexpected obstacles. If all remains clear, the hard shoulder can be released by the traffic operator as an additional lane to improve the traffic flow during peak hours.



Camera preset position 1



Camera preset position 2



Camera preset position 3  
Stopped vehicle detected



Camera preset position 4



## WHY TRAFICON VIP-PTZ?

- Automatic intelligent configuration of detection zones
- Camera preset recognition
- Field-proven detection capabilities
- H.264 streaming video encoder
- Optional serial communication for camera control
- Centralized or roadside installation
- Reliable, stable and optimized embedded hardware
- No license cost
- High lifetime solution

### GOAL:

- Reduce congestion by opening the hard shoulder during peak hours

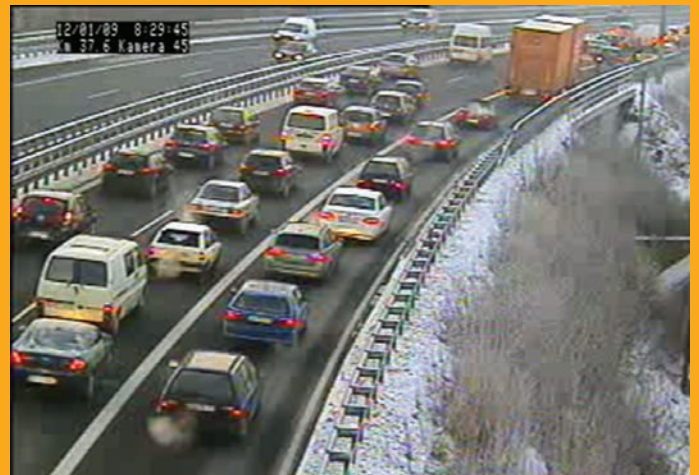
### SOLUTION:

- VIP-PTZ detects congestion building up on highway
- PTZ cameras scan hard shoulder before releasing
- VIP-PTZ automatically monitors hard shoulder for safe release

### RESULTS:

- Improved mobility without additional road construction

## HARD SHOULDER MONITORING



## YOUR VIP-PTZ SOLUTION:

- Full (8 channels) or half (4 channels) 19" rack
- DIN-rail mountable box version for decentralized use
- Hot swappable VIP-PTZ board
- Digital input and outputs

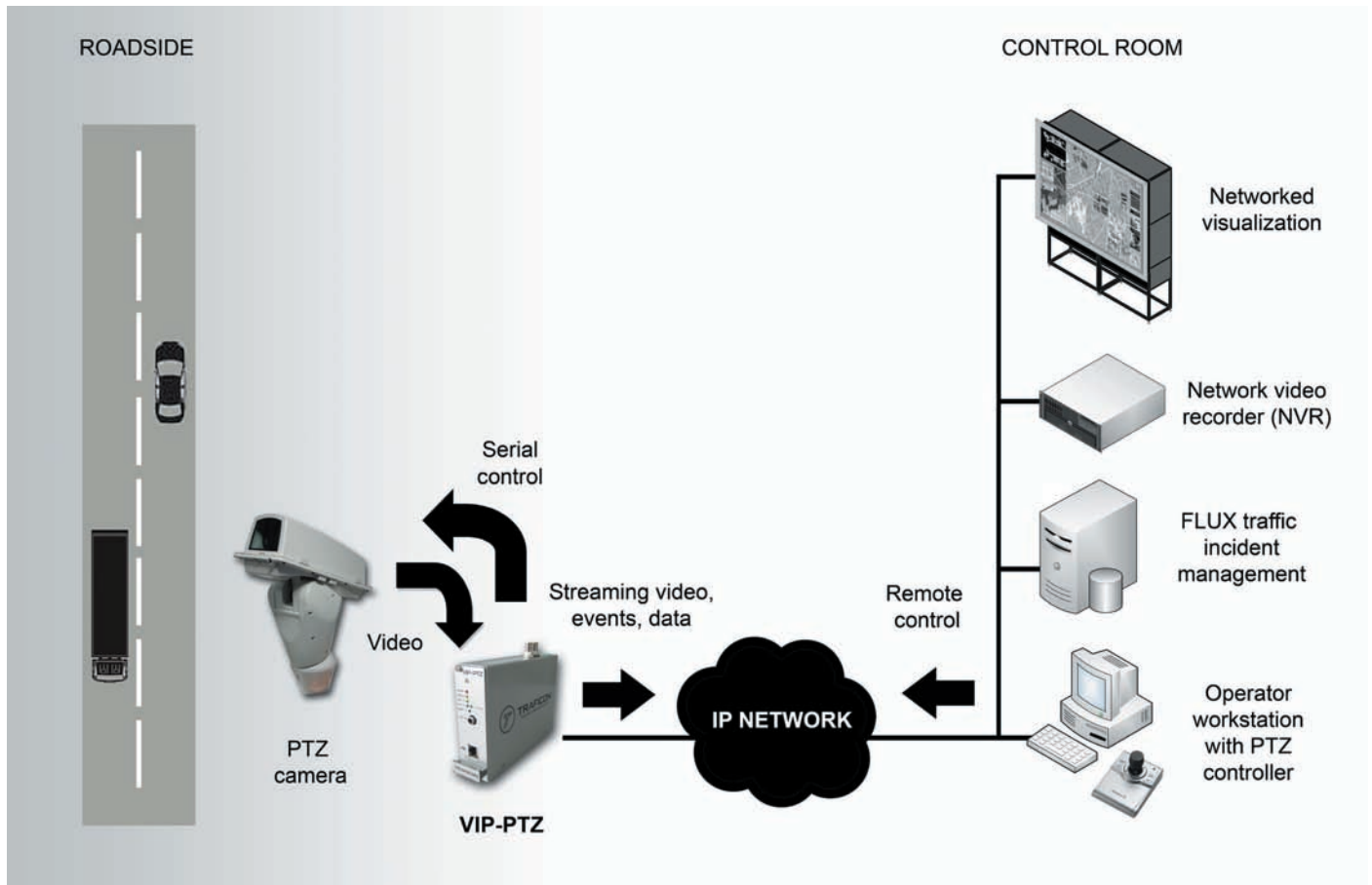


8-channel 19" rack



DIN-rail mountable VIP box version

# SYSTEM ARCHITECTURE



In a decentralized installation, the VIP-PTZ boxes are installed in a roadside cabinet. The VIP-PTZ receives the analogue video from the PTZ camera, digitizes it, analyzes it, and transfers all data, events, alarms and video over the network in real-time

Streaming video can be viewed and/or recorded either directly from the cameras, or with traffic information included from any VIP-PTZ module. The modular and network based architecture allows for a scalable system, expandable and upgradeable to meet the exact project requirements.

Traficon's software platform for traffic management, Flux, is a standalone management solution that collects and stores all detector information. It can easily be integrated into a larger traffic management system.



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Data subject to alteration without notice or obligation. **YOUR CONTACT**



**TRAFICON**  
TRAFFIC VIDEO DETECTION