

# Transportation



## The Challenge

Increasingly, video cameras are being deployed to monitor city street and highway congestion, and to monitor rail and subway facilities. With potentially hundreds of cameras to monitor, traffic management or other transportation center operators may be overwhelmed with all the video and miss incidents that can create more congestion or accidents. Moreover, the value of video is limited when restricted to a central location or not accessible by law enforcement agencies searching for a particular vehicle (as is the case in a high-speed chase or a child abduction alert). When video is consistently monitored and archived, new patterns can be discerned and future actions can be assessed.

The challenge for transportation agencies is how to increase operator productivity and user accessibility, support a growing number of cameras, and facilitate storage of relevant video clips while attempting to preserve existing analog CCTV surveillance systems investments that are the source of many current system limitations.

## Applications



### Operation Center Management

VSM provides low-latency video that enables real-time video viewing with camera controls. By using industry standards, Cisco allows easy integration with existing ITSs. Traffic operations staff can visually monitor road conditions, detect congestion, and assist with onsite incident management. The ability to use video as an incident confirmation tool is particularly important with today's detection systems, because of high false alarm rates.



### Public Agency Communications and Collaboration

Video feeds can be shared with law enforcement agencies and fire departments during an incident. The video can also be used with license plate number recognition to facilitate streaming of relevant video, as opposed to video from a large number of cameras.

Multiple simultaneous users can view the video from different locations, allowing the department to immediately bring appropriate expertise into any field situation. By accessing video over a wireless connection, officers in the field have more information to make time-critical decisions.



### Public Information Sharing

VSM encodes video to an industry-standard format that enables viewing by commuters with a standard browser. Through the Cisco Web interface, the video can be synchronized and integrated into other applications such as highway advisory systems or interactive highway and rail maps with live video, providing commuters with a clearer view of the transit conditions. As a result, commuters can verify trouble spots and research conditions on alternate routes before or during travel.

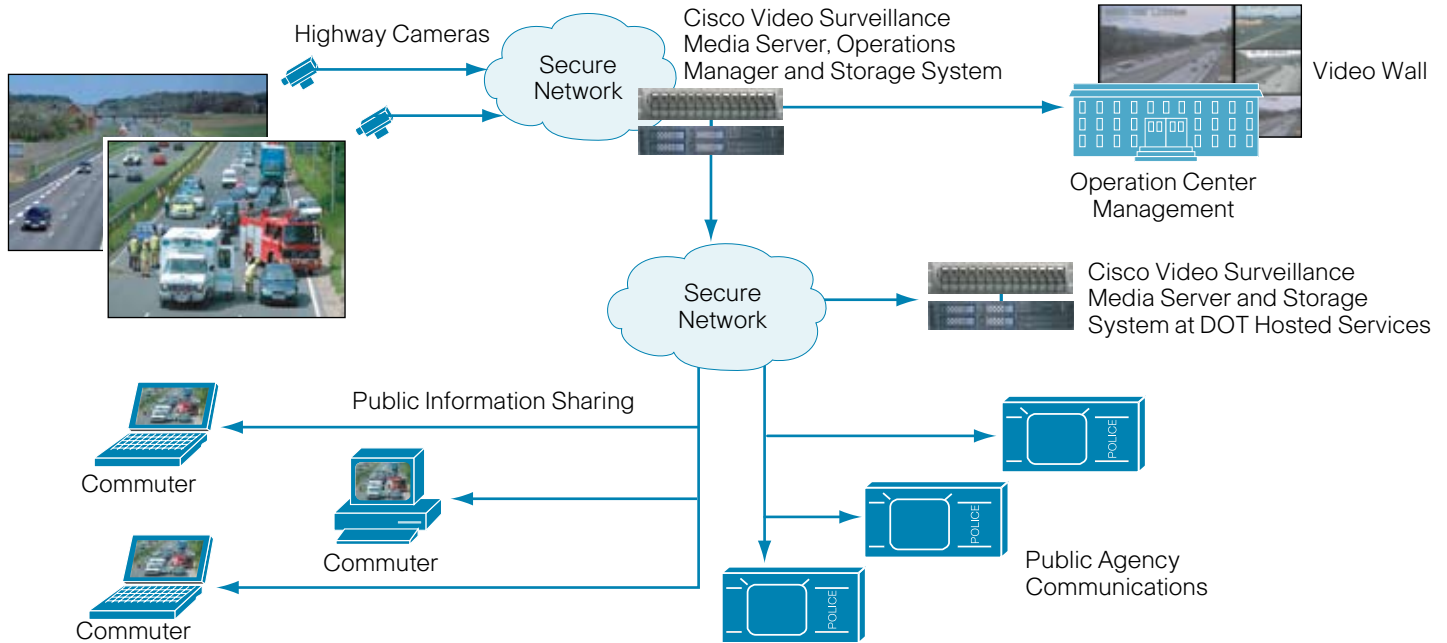
## The Solution

The Cisco® Cisco Video Surveillance Manager (VSM) provides a proven mass transit and traffic management system solution that is deployed by numerous state and municipality agencies today. Using an IP-network-centric approach in combination with a Web browser or an integrated intelligent transport system (ITS) traffic management center application, Cisco offers a highly scalable and reliable software suite that distributes, stores, and manages video from thousands of legacy analog cameras connected to various third-party video encoders and wired or wireless IP cameras.

Camera video can be integrated with third-party video analytics applications to alert operators of predefined events, such as when the number of cars on the road or people on a train platform is over the safety threshold, when a vehicle's speed is significantly over or below average, or the flow of traffic is going the wrong direction. The video can be switched on to operation center video walls or sent to archive servers controlled by the operator or by the Cisco software or another application. Archived video can be made available to study patterns such as traffic or road construction and repairs.

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## Configuration



## Features and Benefits

Features	Benefits
Scalable architecture	Scales to thousands of cameras, viewers, and archives
HTTP-based API	Easy to integrate with existing ITSSs
Low latency	Enables real-time video viewing with camera controls
Redundant archives	Flexible archiving of video at multiple locations, frame rates, and durations
Dynamic file allocation	Optimizes disk usage for stored video
Event-trigger support	Integrates with alarm, process control, video analytic engines, and other systems
Patented video switching	Distributes video into existing security applications or custom interfaces
Bandwidth management capability	Provides bandwidth restrictions to complement network capacity
Browser-based viewing	Allows viewing by any authorized user with customized user interfaces
Industry-standards-based technology and communications protocol support	Enables multivendor interoperability, such as the use of multiple codecs and PTZ camera control

## Why Cisco

Cisco technologies and convergence expertise help businesses and organizations improve their return on investment and lower their total cost of ownership. With vast experience in digital video, including video surveillance, Cisco engineers understand how to use the power of an IP network to deliver new, innovative capabilities in a highly scalable and secure manner. As a trusted advisor and networked physical security user, Cisco has helped forward-thinking organizations maximize the value of their systems, personnel, and applications for more than 20 years. With deployments in transportation, airports, military, education, municipalities, retail, and more, the Cisco Video Surveillance Manager products meets the uncompromising needs of today's safety and security professionals.

Contact your Cisco account team or Cisco Physical Security Authorized Technology Provider today for a personal demonstration, and to learn more about how Cisco can help you ensure the safety and security of people and assets while unlocking the true value of your video system.

For more information see: [www.cisco.com/go/videosurveillance](http://www.cisco.com/go/videosurveillance) or Call 1-866-428-9596