

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

The Cisco Video Surveillance Software Suite 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

The Cisco Video Surveillance Software Suite 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.

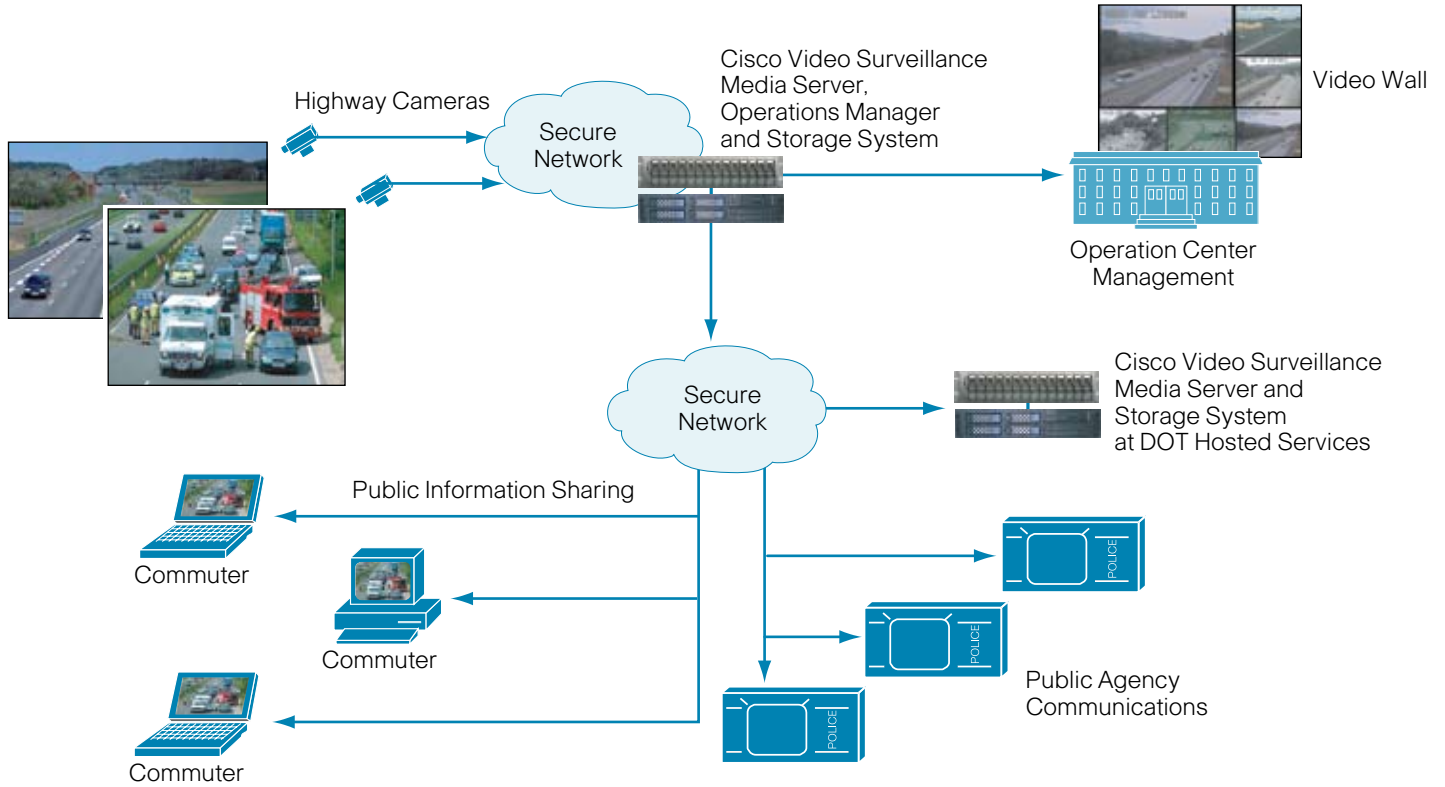
The Solution

The Cisco® Video Surveillance Software Suite 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 suite or another application. Archived video can be made available to study patterns such as traffic or road construction and repairs.

Transportation

Configuration



Features and Benefits

Features	Benefits
Scalable architecture	Scales to thousands of cameras, viewers, and archives
HTTP-based API	Easy to integrate with existing ITSS
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