

CalTrans District 7 Upgrades to CohuHD™ Helios™ Video Cameras for Better Image Quality, Durability and IP Capabilities, Case Study

CalTrans District 7 Monitors The Roadways Across California Using a Variety of CohuHD Helios Video Surveillance Cameras

Challenge

CalTrans District 7 has more than 500 cameras monitoring roadways throughout Los Angeles and Ventura Counties. Monitoring the roadways is one part of the proactive management of the freeway system as result of the mandate to reduce congestion, mitigate accidents and improve efficiency of transporting goods and people. The dynamic and unique road conditions change unpredictably and quickly, creating potential danger to drivers and congestion, which, in turn, results in more delays and pollution.¹

CalTrans District 7 requires professional-grade video surveillance solutions designed for continuous operation, 24 hours a day, 7 days a week. CalTrans District 7 needed to upgrade 60% of their cameras, as some of the cameras were more than 20 years old. The average life of a CCTV camera is seven to 10 years.²

Cal Trans District 7 requires a video monitoring system that provides reliability, durability and ruggedness. These are characteristics of CohuHD cameras. CohuHD cameras are the superior solution for clearer, crisper images.

Requirements

- Deliver high-quality video in real-time, 24/7
- Operate continuously in harsh road conditions in the presence of dust, dirt and other pollutants
- Enable monitoring of freeway conditions, to dispatch appropriate response during incidents and to respond to changes in traffic flow
- Enable cameras with both analog with RS422 capabilities, and IP with built-in H.264 video compression to allow transmission over the Internet
- See day and night, through smog, fog, and rain, and in very low-light conditions



CohuHD Helios cameras monitor road conditions for CalTrans District 7 throughout Los Angeles and Ventura Counties

Solution

CalTrans District 7 requires a video surveillance solution that provides 24/7 monitoring with clear video feed.³ The camera requirements are to be durable enough for continuous operation in all conditions. The needs also include excellent visibility in very low-light conditions, at night, and through smog, rain, snow and fog.

CohuHD Helios technology provides clearer, crisper images, resulting in more accurate monitoring of roadways. The IP67 sealed and nitrogen-pressurized enclosures have the required durability.² The Helios camera's IP connectivity with H.264 video compression and hybrid analog video and control enables seamless migration to viewing over the Internet. The video feed is broadcast on the Internet and can be accessed by motorists to check road conditions, plan alternate routes, or adjust travel time to account for traffic congestion.

CohuHD cameras offer superior optics, day/night operation, visible light and thermal imaging, and rugged pan-tilt construction, providing the most reliable, cost-effective, and highest-performing solutions available.

After a thorough needs assessment, CohuHD recommended our exclusive 3960SD IP67 pan/tilt/zoom video surveillance camera. Cal Trans District 7 went through a competitive bidding cycle, and selected our camera as the winner and best solution. With its sealed and pressurized IP67 construction, the 3960SD provides proven durability and the rugged construction needed to withstand the rigors of any transportation application.

3960SD Positioner Camera

- Sealed and nitrogen-pressurized enclosure, guaranteeing protection against failure due to vapors and particulates
- Fast and accurate positioner (PTZ)
 - Ability to look straight down and in a 360° sweep
 - Logo capability
 - Improved positioning resolution for better accuracy



The 3960SD features an IP67 sealed and pressurized enclosure for reliable 24/7 monitoring

Read more: [3960SD video surveillance camera](#)

Results

CohuHD 3960SD's rugged, reliable camera solution provides reduced total cost of ownership by virtually eliminating repair costs and freeing valuable resources. The reduced down time increases effectiveness and decreases total cost of ownership. CalTrans District 7 is able to maintain traffic flow and react to traffic incidents by dispatching the proper response. The added surveillance effectiveness results in increased cost-efficiency, less downtime, decreased accidents and reduced congestion. Cameras are located to obtain the maximum impact on congestion and frequency of events related to congestion.⁴

About CalTrans District 7

CalTrans District 7 is located in Ventura and Los Angeles counties.

MISSION: Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.⁵

VISION: A performance-driven, transparent and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.⁵



GOALS⁵

- Safety: Provide the safest transportation system in the nation for users and workers
- Mobility Maximize: transportation system performance and accessibility
- Delivery Efficiently: deliver quality transportation projects and services
- Stewardship Preserve: and enhance California's resources and assets
- Service Promote: quality service through an excellent workforce

VALUES⁵

- Integrity: We promote trust and accountability through our consistent and honest actions
- Commitment: We are dedicated to public service and strive for excellence and customer satisfaction
- Teamwork: We inspire and motivate one another through effective communication, collaboration and partnership
- Innovation: We are empowered to seek creative solutions and take intelligent risks

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1. <http://leonard.csusb.edu/research/documents/1017FinalReport.pdf>
 2. <http://www.dot.ca.gov/dist07/Publications/Inside7/story.php?id=673>
 3. <http://video.dot.ca.gov/>
 4. http://www.dot.ca.gov/newtech/showcase/project_reports/mvem_evaluation_report_final.pdf
 5. <http://www.dot.ca.gov/dist07/aboutus/>