Invented for life
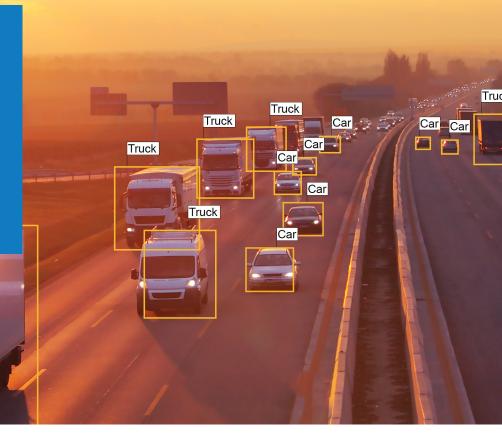
BOSCH

Detect with accuracy

Bosch and Genetec integrated solutions for ITS

As roadway congestion increases, traffic agencies face further challenges to improve safety and facilitate faster responses to incidents. Choosing the right technology is critical to quickly identifying traffic anomalies and implementing the correct workflows to resolve risks on the road.

For decades, Bosch has developed video analytics technology used for driver assistance, semi-autonomous and autonomous driving, and intelligent safety systems. This same foundational analytics technology is inside Bosch cameras. Video analytics built-in to Bosch cameras enables intelligent devices that can alert to safety risks and deliver valuable data for identification of patterns and trends for highway and infrastructure planning.

Genetec offers a unified open-architecture platform to provide operators specialized traffic monitoring and management features. From incident detection and management to radio communication and message sign tools, traffic operators use the Genetec platform to improve situational awareness and make informed decisions.

Together, Bosch and Genetec integrated solutions provide users with a comprehensive view of traffic operations and enable earlier incident detection and mitigation.

In partnership with

Genetec

Genetec Security Center

Video stream with real-time alerts

Metadata stream

Bosch ITS Data Service

Optimize Detection and Response

Combined with Genetec Security Center™, Bosch IP cameras become a crucial source of information for traffic operators that optimizes the response time of a control center. The combination of powerful analytics in Bosch cameras and Genetec's central rules engine gives a perfect mix of functionalities to identify a spectrum of situations, from stopped vehicles to a person on the roadway.

Detect incidents with higher confidence

The latest Bosch cameras for intelligent transportation systems (ITS) support embedded neural network-based video analytics detectors that deliver highly accurate detection for real-time safety use cases. They detect vulnerable road users and classify vehicles, while ignoring disturbances caused by headlights, extreme weather, sun glare, and vibration – achieving accuracy levels beyond 95 percent. With high accuracy and fewer false alerts, traffic operators trust the system and can focus on the most pressing situations.

Resolve incidents faster

Bosch cameras can detect incidents, such as a queue on an exit ramp, slow or stopped traffic on the highway, or a person on the hard shoulder, and raise an alarm in Genetec Security Center. The Genetec system can help operators respond with dynamic step-by-step on-screen procedures and automated routine tasks that can adapt to complex workflows.

Beyond Video

Traffic data, such as average speeds and volumes, are useful for real-time operations and planning. The Bosch cameras give operators a comprehensive view of the current traffic conditions and double as traffic sensors. The video analytics in the cameras can detect and count pedestrians and classify and count objects as cars, trucks, buses, motorcycles, and bicycles while providing data on speed and trajectory.

Gain situational intelligence

Genetec Security Center can parse all data coming from Bosch cameras to give operators relevant information about traffic conditions. Data can include the average speed of vehicles, the volume of specific vehicle classes, the occupancy of the road, or even the wait time of vehicles or pedestrians at an intersection. This level of organized real-time intelligence guides operators' attention toward the highest priority issues. It empowers them to mitigate risk with targeted data-fueled support.

Plan ahead with accurate data

Supplement the real-time data displayed in the Genetec system with the Bosch ITS Data Service. This cloud-based tool aggregates the camera metadata for historical road use analysis with access through online dashboards, data exports, or using the data service API. With greater awareness of traffic patterns and areas where congestion, queuing, and high use by vulnerable road users occur, traffic planners have the data needed to make informed changes to infrastructure.