



CONVERGING ON SAFETY: TECH COMPANIES SHARING DATA TO DETECT RISKY DRIVERS

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In October 2017, a top-performing driver for Oakley Transport crossed the centerline of a bridge at approximately 4 a.m.

A windshield-mounted Bendix AutoVue camera system detected the lane departure and instantaneously shared event data with an in-vehicle SmartRecorder device from SmartDrive.

The SmartRecorder captured and transmitted a 20-second video clip of the event to Oakley Transport for review using the SmartIQ web portal from SmartDrive.

“It was a scary moment to watch,” recalls Craig Stevens, Oakley’s vice president of operations and strategic initiatives. He saw the driver shaking himself to stay alert.

After the technology identified the fatigued driver, Oakley Transport’s safety department intervened and provided treatment for what had been a previously undiagnosed sleep apnea.

Fatigue is one of many risky driving behaviors that can be detected using advanced technology. Rather than work in isolation, technology is converging and bringing together data to identify more complex patterns of risk that traditionally have been missing from view.

Breaking down technical and competitive barriers has made it possible to more effectively mitigate risks using more comprehensive and real-time views of vehicle and driver performance.

Oakley Transport, based in Lake Wales, Fla., is installing the SR4 in its 500-truck fleet.

A Single Subscription

One of the forces driving technology convergence is the prevalence of advanced driver-assistance systems (ADAS). Eventually, ADAS technology will power autonomous trucks, but in the meantime they are expanding the possibilities to mitigate risks.

Telematics systems like Navistar's On Command system will be the linchpin for trucking's coming technology shift, Navistar CEO Troy Clarke says.

Today, fleets may be cobbling together data from multiple ADAS technologies and Internet of Things devices and sensors. For example, a telematics system may report speeding and sudden braking events while a separate video event recorder is used to identify more complex behaviors that triggered the events like fatigue and distraction.

SmartDrive's latest SR4 platform has expanded possibilities for data integration for reducing costs and giving fleets a "single source of truth" for driver and vehicle performance, says Steve Mitgang, SmartDrive's chief executive.

SmartDrive is using data it captures from OEM and third-party systems to continuously develop and refine driver-assist sensors and machine learning algorithms that detect risk patterns.

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Oakley Transport orders its Volvo trucks with Bendix AutoVue lane departure warning and Bendix Wingman Fusion systems installed at the factory. The Wingman Fusion system combines adaptive cruise control with active braking and collision mitigation technologies.

The Bendix ADAS systems integrate with the SmartDrive platform to trigger capture of video records based on lane departures and following distances.

Kelly McDowell, Oakley's director of safety and

compliance, says everything managers want to know about driver behaviors and risk is available through the SmartDrive program, which brings data together into "one package to measure safety."



Machine Learning

As motor carriers continue to adopt ADAS and other forms of safety technology, some companies are using artificial intelligence to detect new patterns of risky behaviors as the volume of data increases.

SmartDrive is using data it captures from OEM and third-party systems to continuously develop and refine driver-assist sensors and machine learning algorithms that detect risk patterns. The company will soon release sensors that can alert drivers, assess behaviors and trigger the capture of event data and video for lane departures, short following distances, forward collision warnings, posted speed detection, traffic signs and signal violations.