

Connected Cameras:

Improving Driver Behaviours, Saving Lives, and Reducing Costs

Dash-Cams and In-Vehicle CCTV



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Fleet-Vehicle Cameras: Helping to Save Money and Lives

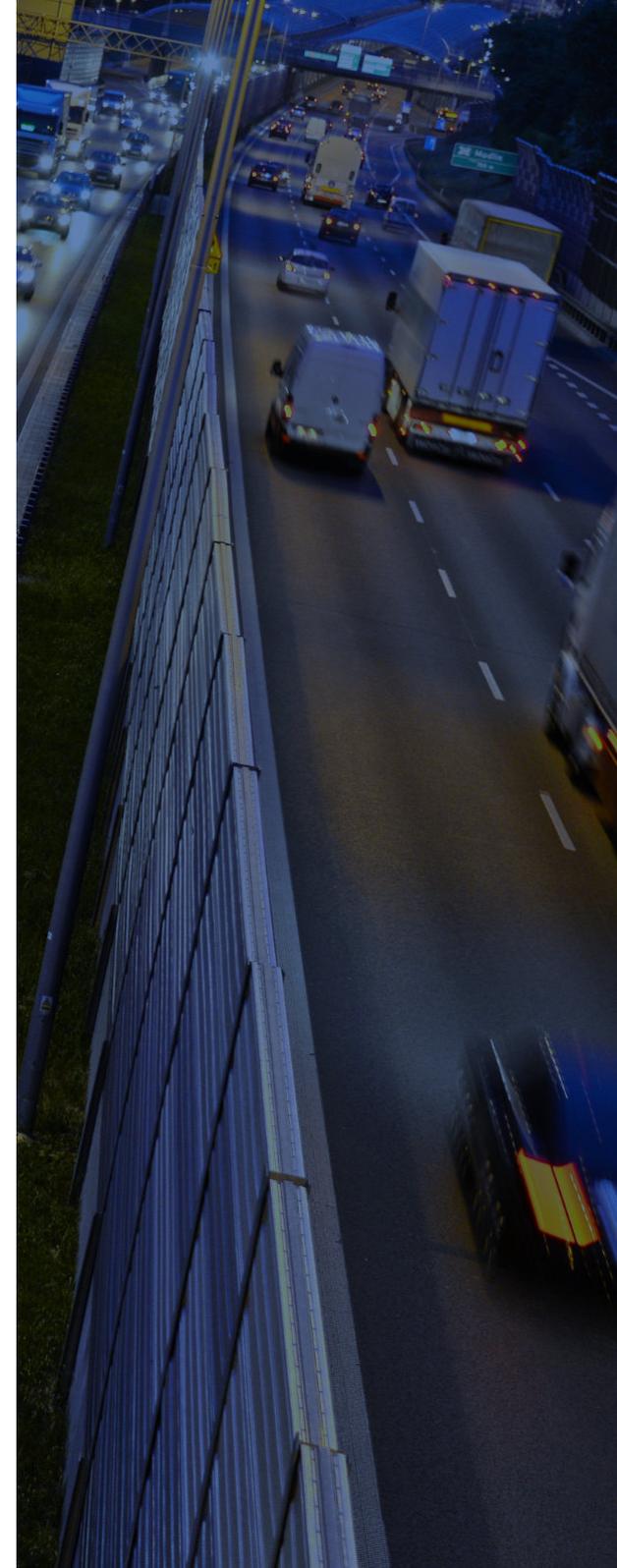
Installing cameras in business vehicles can help companies develop better practices by recording incidents as and when they happen. This helps both to improve drivers' behaviour and to protect employees from harm, whilst also serving the wider public and other road users. Recognising a driver's responsibility for their actions is important, and is reinforced by in vehicle recording. This can help companies and employees to focus on instilling good driving behaviour and addressing issues, for their mutual protection and ongoing coaching and training.

Such forms of technological assistance and supervision can naturally increase levels of suspicion amongst drivers, with the knowledge that they could potentially be used evidentially if misconduct is suspected.

Cameras and information assistance systems, however, can also be highly beneficial to the vehicle drivers themselves. The extra visibility and targeted warnings they provide of problems emerging outside their line of sight can help to decrease the risk of accidents. This includes for example, the presence of hazards or of other vulnerable road users, such as cyclists or children.

Installing fully integrated or retro-fitted technologies within vehicles, therefore, can help drivers and businesses operate more safely and effectively. They also enable compliance with increasingly stringent regulations that govern commercial road users, one example being Transport for London's Direct Vision Standard (DVS).

Whilst safety alone should perhaps be sufficient reason for fitting multi-camera systems to commercial vehicles, it is also important to recognise that investing in a fleet camera solution can also produce ongoing savings and returns.



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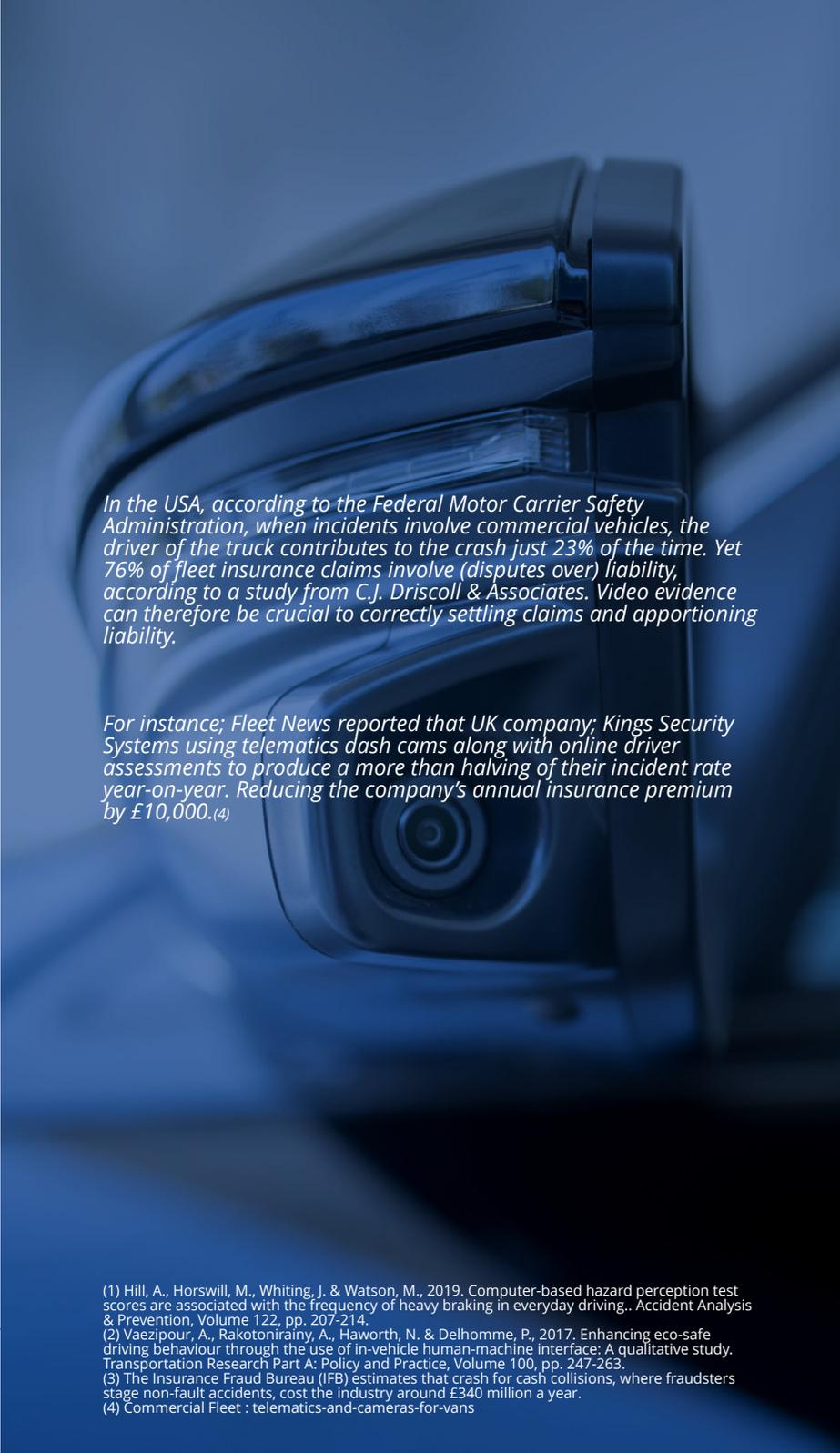
Affecting Driver Behaviour & Saving Costs

In-vehicle cameras not only provide tools to drive compliance with internal and external business processes and safe behaviours, but can also save fleet operators money. When used as part of a programme to evidence and highlight bad practices such as speeding, poor lane discipline and driver distraction, cameras can help to significantly reduce business risk, fleet operating costs and the damage caused to individuals. As an example, frequency and incidence of heavy braking has been used as an indicator of high risk drivers and poor driving practices (Hill, et al., 2019).

Buy-in is critical: Studies have revealed the importance of driver acceptance of in-vehicle technologies and cameras, as it relies on the drivers' perception of the importance, usefulness and design of the technologies, along with their acceptance of the company's intentions in deploying them (Vaezipour, et al., 2017). Reinforcing good driver behaviour and practices, if implemented constructively and with the support of employees, helps to conserve and positively reinforce the company's vital but intangible assets including image and reputation.

One of the simplest ways of measuring tangible cost benefits is by assessing the effects of increasing the use of technology on the reduction of business insurance costs. Costs of individual accidents are often also lowered by clearly established liability early in the process. For example, admitting liability can actually be advantageous to aid rapid, simple claim processing and the fair resolution of incidents. As an example, dash-cam telematics service providers often report that fleets using cameras can help realise a 40% reduction in disputed claims versus the industry norm. Lowering the resulting and protracted processes and therefore costs, damages and compensation. Cameras also reduce or eliminate fraudulent claims; e.g. "crash for cash", which alone costs the UK vehicle industry over £340 million per year.

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In the USA, according to the Federal Motor Carrier Safety Administration, when incidents involve commercial vehicles, the driver of the truck contributes to the crash just 23% of the time. Yet 76% of fleet insurance claims involve (disputes over) liability, according to a study from C.J. Driscoll & Associates. Video evidence can therefore be crucial to correctly settling claims and apportioning liability.

For instance; Fleet News reported that UK company; Kings Security Systems using telematics dash cams along with online driver assessments to produce a more than halving of their incident rate year-on-year. Reducing the company's annual insurance premium by £10,000.⁽⁴⁾

(1) Hill, A., Horswill, M., Whiting, J. & Watson, M., 2019. Computer-based hazard perception test scores are associated with the frequency of heavy braking in everyday driving. Accident Analysis & Prevention, Volume 122, pp. 207-214.
(2) Vaezipour, A., Rakotonirainy, A., Haworth, N. & Delhomme, P., 2017. Enhancing eco-safe driving behaviour through the use of in-vehicle human-machine interface: A qualitative study. Transportation Research Part A: Policy and Practice, Volume 100, pp. 247-263.
(3) The Insurance Fraud Bureau (IFB) estimates that crash for cash collisions, where fraudsters stage non-fault accidents, cost the industry around £340 million a year.
(4) Commercial Fleet : telematics-and-cameras-for-vans

03

The Importance of Connected Cameras

Current Platforms:

First generation and low-cost dash-cams only offer internal or off-line recording requiring USB sticks or SD cards to be installed and removed from devices to obtain the footage. Later versions offered Bluetooth or Wi-Fi connectivity, which increased the efficiency of manual downloads. Only recently, however, have mobile GSM-connected cameras come to the fore as the default choice for fleet video telematics. Once an event occurs, (i.e. a collision or excessive braking force) an accelerometer on the camera is triggered, resulting in the automatic uploading of a video clip, detailing the events leading up to the triggering incident potentially for use as material evidence.

Control/Accuracy of Claims: Cost & Reputation Control

Technologies that connect the camera device ubiquitously to a mobile network are critical as they overcome some of the major shortcomings of unconnected cameras. Fully managed connected systems can help eradicate inefficiencies and malpractice.

For example, a key benefit of connected cameras is for the fleet operator is to obtain First Notification of Loss (FNOL). Delays in obtaining essential footage after an incident, can hand the initiative to the other party to dispute the claim.

The earliest possible knowledge of an accident enables the operator's insurer to maintain control of the claims- management process and ensure that liability is apportioned correctly from the start.

Further, if the driver was at fault, SD cards or USBs have a habit of mysteriously disappearing or suffering catastrophic damage. For a company this is doubly problematic, as not only does it destroy available evidence that may settle the case quickly either way, but also the video or driver metrics that might provide the coaching opportunity for proactive or preventative interventions or advice that may reduce the likelihood of further or more extreme incidents occurring in the future.

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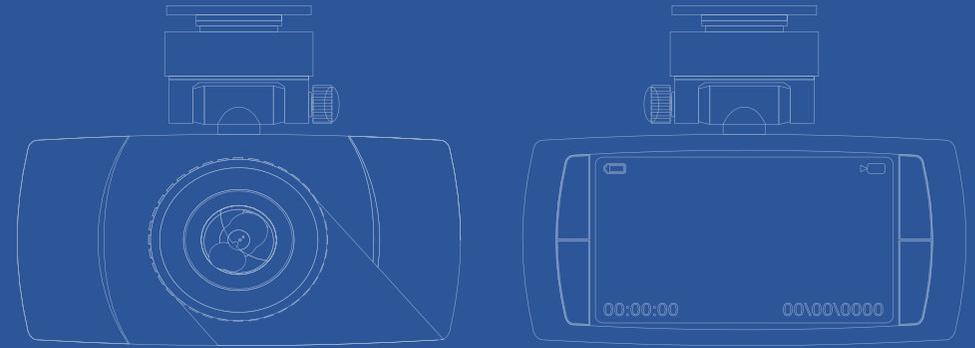


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The Criticality of GSM Connectivity

Network Coverage:

Current forms of GSM (4G, LTE and soon 5G) offer cloud-connected cameras enhanced benefits over previous generations of mobile technology. Fleets operating across regions, countries, or entire continents, need to keep the cameras and telematics devices connected for the maximum time throughout the widest range of locations. Network coverage and connection-resilience are therefore a critical element of maintaining the protection the cameras provide. For this reason, for such deployments, the default choice is a fully-managed global-roaming, multi-network SIM, capable of roaming across mobile network operators to provide the maximum geographical coverage and connection resilience. Connected cameras with the capability to constantly record footage on a loop from the vehicle ignition-on and store critical data remotely are, therefore, now cost-positive and effective solutions.



Emerging SIM Technologies

For the vast majority of global markets, multi-network SIM profiles in traditional push-fit or Chip-SIM formats remain the ubiquitous choice due to the range of agreements they offer as a powerful solution to the in-country coverage limitations of individual networks and increased resilience against outages.

In some countries such as Brazil however, international roaming is banned by the government regulator. In others, some local Mobile Network Operators have a long-term aim to eventually eliminate roaming onto their network for strategic or competitive reasons. In these few instances, the vehicle camera operator can either; use a dedicated local SIM – at the (fairly small) cost of increasing their SKUs and reducing stock flexibility, or to choose an eSIM from a provider that offers both a cost-effective roaming profile and an appropriate local profile to deploy in the countries where this may occur.

This eSIM approach can offer a 'future proofing' alternative to the push-fit SIM, but since this does add both up-front and ongoing costs to deployments, at Caburn we would always recommend that a comprehensive future-risk assessment and cost-benefit analysis is made as part of a lifetime TCO modelling exercise before the final decision is taken towards the best-approach.

Caburn Telecom's major worldwide MNO partnerships and our global operational footprint means we regularly assist our customers with this type of complex decision-making. Recently, as an example, for a number of customers who have specific geographical constraints, we have deployed eSIMs, fitted on the production line, together with a global roaming multi-network profile as the 'bootstrap' that will provide cost-effective worldwide coverage. For these clients, in countries where roaming is currently banned, we have implemented a local Tier-1 network operator profile, selected as having the largest geographical footprint and best service record. Should other countries bring in restrictions in future, then for these clients we can deploy further local network profiles OTA to the eSIMs, ensuring continuity of service.



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An Operator's Experience:

Radius Payment Solutions Limited:

"Radius Telematics is one of the fastest growing providers of connected vehicle, telematics and IoT solutions in the world, currently operating across 5 continents with over 300,000 live connected devices.

Having a scalable global partner like Caburn Telecom is critical to our continued growth aspirations. Caburn provides Radius with essential connectivity services with multiple SIM options, managed through a single portal to help us deliver ongoing service excellence and reduce our total cost of ownership."

Greville Coe
Group Managing Director - Telematics
Radius Payment Solutions Limited



Please contact us by telephone or email to discover how our connectivity solutions and expertise in this sector, can help you achieve a successful and cost-effective connected-in-vehicle camera solution for your business:

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