



IN-CAR VIDEO SYSTEMS

ESSENTIAL SUPPORT FOR MODERN POLICING





Police forces across the country face escalating pressures: a reduction in resources, staff shortages and austerity's impact on crime, all while the responsibilities asked of them expand. Administrative duties further deplete an officer's time: tasks are manual and confined to slow and archaic systems, which operate in silos and often require tasks to be duplicated - making them prone to error.

Digital technology can empower officers to better manage the demands placed on them, reducing administrative burdens and streamlining workflows, giving them more time on the streets. Forces are increasingly seeing the benefits of uniting disparate systems with advanced software applications, in particular those an integrated in-car video (ICV) system brings. From gathering evidence-grade footage to reducing administrative tasks, ICV systems contribute to better operational efficiency in policing.

SOLUTION BRIEF | IN-CAR VIDEO SYSTEMS

THE BENEFITS OF AN INTEGRATED ICV SYSTEM FOR PUBLIC SAFETY

Motorola Solutions' ICV system, the M500 was designed specifically for public safety. An advanced video analytics engine, it captures evidence while simultaneously analysing it. Combining the features of multiple crucial applications - including cameras, digital evidence management systems and GPS positioning - in one, intuitive interface, a command on the M500 is never more than three taps away.

Despite the benefits of an ICV system, some forces are relying on shop-bought dashcams combined with GPS-powered telematics systems to capture evidence and monitor vehicle movement. These self-assembled systems use substandard technology which can be detrimental to policing operations, and have a number of disadvantages in comparison to an ICV system such as the M500.

SELF-ASSEMBLED IN-CAR VIDEO SYSTEMS VS THE BENEFITS OF AN INTEGRATED M500 IN-CAR VIDEO SYSTEM

POLICE OPERATIONS USING A GENERIC SELF-ASSEMBLED SYSTEM



A small camera mounted on the front and rear of a vehicle, dashcams enable members of the public to document their own driving and any incidents that occur on the road. They aren't designed or tested to withstand life-threatening situations, nor to support the situations police face.



To create actionable evidence, officers must record every step of the evidential chain manually: offloading dashcam footage and telematics data to a Digital Evidence Management System (DEMS) themselves, using another system to store, review, edit, redact and share the evidence, then hand-typing accompanying incident notes resulting in footage frequently being lost as well as creating inefficiencies through wasted resources.



When capturing images at high speeds, dashcam footage can be blurry and pixelated, and most devices are only active when the vehicle's engine is on.



A self-assembled system can't tell you who was on shift at the time the evidence was captured.



Domestic dashcams record at a higher bitrate, which needs more storage and the required file sizes and types aren't suitable for evidential storage, nor in a manageable format. Footage can't be stored on an SD card as they aren't secure or encrypted, they're prone to failure and corruption and can be misplaced - as well as being easy to damage deliberately by a potential bad actor.

POLICE OPERATIONS USING THE M500 INTEGRATED ICV SYSTEM

The M500's system has been built against the exacting specifications of global police forces, who have tested it to ensure it enhances their operations. Its 4K front camera sensor can record up to 1080p resolution, with panoramic and focused views providing multiple viewpoints from inside and around the vehicle.

The M500's robust back-end evidence management system automatically offloads, tags and links evidence over Wi-Fi or LTE, storing it securely or live-streaming it as required. Footage is combined with metadata - including GPS data and speed measurements - to create one consolidated view. The system also includes an in-built auto transcription function and video redaction tools.

Should an officer need to supplement an incident with further information, this can be done using the M500 within the vehicle, without having to return to the station.

As well as obtaining evidence-grade sound and images, should an incident occur, the M500 can pre-record footage for up to 10 minutes and will continue to record using an in-built Uninterruptible Power Supply (UPS) - even if your vehicle is in a collision and there is a loss of power. Not only are those vital final seconds leading up to and after an incident captured, but the automatic function means officers aren't distracted from the task. M500 features robust and flexible power management profiles.

Using in-built user profiles, evidence is managed against the officers on duty. An officer logs into the M500 at the start of their shift and all event recordings for that shift are automatically attributed to them in VideoManager.

The M500 has automotive grade solid state drive, all footage is encrypted at rest and in transit, and users cannot delete footage from it and do not have access to the internal HDD.

Although the initial cost of a self-assembled system is less than an ICV, the time spent manually maintaining the dashcam stream, the information obtained from the telematic system and processing the incident notes is significant. In relying on a system built for consumers, not public safety, evidence is maintained on the device's internal memory or removable memory card, so there's a risk of footage being easily lost or not fit for purpose.

Using advanced AI capabilities, the M500 accurately analyses events, warns of threats and identifies search targets in real-time. Owing to its VideoManager backend software, it will easily sync with other current Motorola Solutions applications including BWCs, as well as subsequent ones as required - making it a future-proof investment.

The M500 system is so robust that it generally outlives the car it's installed in, with the majority of M500 systems being used in two or more vehicles over the period of ownership. This durability has meant that we offer all-in-one cable kits alongside an M500 purchase, to streamline the re-installation process when moving it to its next vehicle.

To discuss the benefits of the M500 to your policing operations, get in touch with a **Motorola Solutions account manager** today.



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