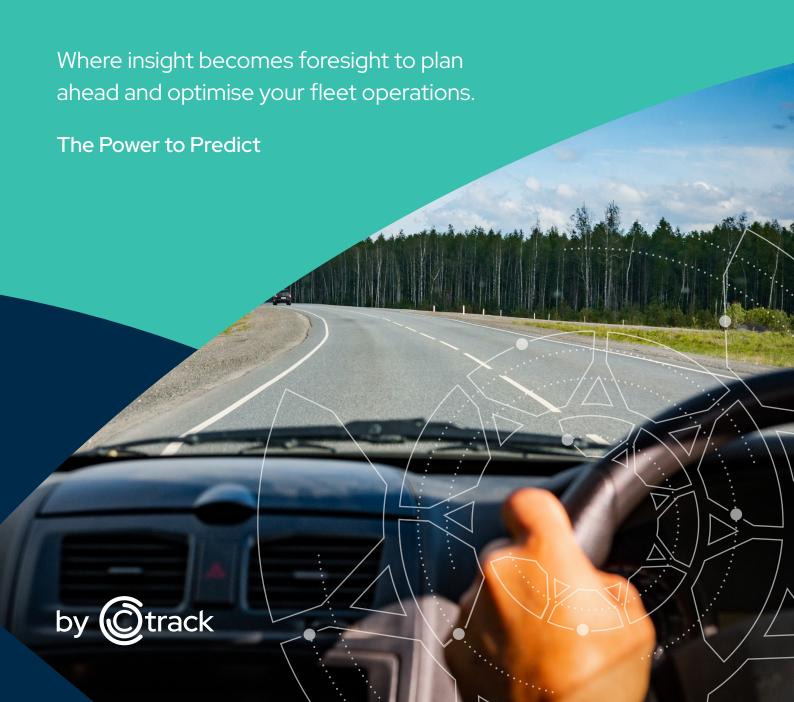


CAMERA & VIDEO TECHNOLOGY

Your unique business. Your unique solve.





The Power to Predict, using camera & video technology.

At Ctrack, we've always maintained that fostering a culture of safety is a key factor to driving brilliant business. Afterall, there is no doubt that safety and profitability go hand in hand. The goal with our technology has always been focused on reducing risk, improving efficiency, and avoiding incidents at all costs, whether that's behind the wheel, on a construction site or due to a failure in compliance - all of which are preventable with the correct systems in place. Our advanced camera and video technology effortlessly delivers exactly that and so much more.

Telematics cameras are a game-changer when it comes to keeping an eye on your vehicles and drivers. These cameras bring together top-notch technology with advanced telematics capabilities, giving you a complete picture of what's happening both inside and outside the vehicle in real-time. With Ctrack Iris Dashcam & ADAS integration, you get all the features you need to enhance safety, boost efficiency, and manage your fleet effectively. It's like having an extra set of eyes on the road, constantly monitoring for driver behavior, road incidents, and even the status of your cargo. Crystal by Ctrack makes it even easier by bringing all these features together on one user-friendly platform. It's totally customisable so that you have sight of everything, or the only thing that's important to you.

You can remotely view live footage, download event files, and take advantage of ADAS (Advanced driver assistance system) and DMS (Driver Monitoring System) functionalities that provide warnings for forward collision, headway, and driver distraction. It's all about harnessing technology to make your fleet management smarter and safer.



Reduce risk and minimise safety hazards



Optimise fleet productivity and efficiency



Improve asset management and tracking



Manage and improve driver behaviour



Automate and streamline compliance

Real time insights for real operational improvements.

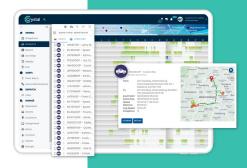
Advanced features to plan ahead and optimise your business operations.



LIVE FEED & RECORD KEEPING

Keep all eyes on the road to reduce risk and liability.

Crystal Video can be used as your eyes out on the road, to monitor driver behaviour and stop potentially hazardous activities from happening. Use Crystal to tap into a live feed from the cab, and be made aware of distracted driving, speeding, or aggressive manoeuvres. This information can be used to correct those actions and improve on them through driver training, reducing accidents, lowering insurance costs, and increasing safety on the roads; not to mention sparing a business of the potential risk and liability. Cameras and video also provide invaluable evidence in the event of an accident, helping to determine true fault and liability. This simple addition to your fleet management system can eliminate costly disputes and help to ensure that justice is served.





REMOTE ACCESS & REMOTE MONITORING

Monitor your operations from a distance.

You're not always near to where your assets are, but Crystal Video can bring them as close as the palm of your hand. With remote monitoring, cameras and video can provide live access to equipment or locations, allowing you to monitor operations from a distance, specifically if they're items of value that are at risk of being stolen. Keep the right people in and wrong people out, with zone management and remote access control. Monitor the movement of goods and cargo and check in at any time for a real time view of what is important to you. Crystal Video can provide alerts and live video, allowing you to activate emergency response plans, should anything out of the ordinary be detected, well in advance.





ALERTS & WARNINGS

Smarter video technology that works for smarter businesses.

Having access to real time feed accessible from anywhere can give you a true account of what's really happening on a practical level. When combining this with Crystal reporting and forecasting, inefficiencies can be addressed and data-driven decisions can be made to increase efficiency, cut wastage and curb expenditure. Your customers can benefit from Crystal Video too when you share real-time updates on delivery status and an early warning if any disruptions are encountered along the way. Compliance with regulations is made hassle free when camera video footage is instantly retrievable for transparent and irrefutable reporting.



Camera & Video Solutions

		Iris 2-channel Dashcam	Iris 4 channel Dashcam	Iris 5 Channel DVR	Iris 8 Channel DVR / Iris 8 CH DVR - Dual SIM
HARDWARE SPECS	Cameras Supported	2 Built-In	2 Built-In + 2 optional	Up to 5	Up to 8 (Dual SIM – up to 12)
	Camera Types / Installation	2x IPC	2x IPC Built-In / Opt: 1x AHD & 1x IPC	4x AHD + 1x IPC – all wired	4x AHD + 4x IPC - all wired (Dual SIM: 8x AHD std. + 4x IPC opt. - all wired)
	Video Recording Resolution	Up to 720p	Up to 1080p HD^	Up to 1080p HD^	Up to 1080p HD^
	Storage Type & Capacity	micro SD – 64GB incl. max. 256GB opt.	micro SD – 2x 64GB incl. max 2x 256GB opt.	128GB SSD – incl. w/2x Cam config. 250GB SSD – incl. w/3x Cam config. SSD max: 2TB	500GB SSD incl. SSD max: 2TB SD max: 256GB SDXC opt.
	Network Coverage	GPS 3G/4G	GPS 3G/4G	GPS 3G/4G (WiFi on request)	GPS 3G/4G WiFi
SOFTWARE PLATFORM	Desktop / Mobile Interface	Yes	Yes	Yes	Yes
	Mobile interface	Android & iOS app	Android & iOS app	Android & iOS app	Android & iOS app
INSTALLATION	Mounting System	Windscreen	Windscreen	In-vehicle mount	In-vehicle mount
	"Camera Positions – these always included as Standard Config: 1x Internal Forward Road Facing 1x Internal Driver Facing"	2x Built-in as per Standard Config.	2x Built-in / Opt. 3 & 4 wired Standard Config. with ADAS* on Forward Road Facing camera. Optional: DMS** Driver Facing Enhanced Fatigue camera. Or as reqd. side/ rear/internal/ external cameras	All cameras are wired Standard Config. + additional as reqd: side/rear/internal/ external cameras	All cameras are wired Standard Config. + additional as reqd: e.g. L/H Cab IP Rated Side Camera R/H Cab IP Rated Side Camera etc. (side/rear/internal/ external)
FUNCTIONAL	Remote live view & Event file download (auto)	Yes	Yes	Yes	Yes
	ADAS & DMS Functionality	No	Yes^	Yes^	Yes^
	ADAS* - Forward Collision Warning / Headway Warning (following distance/ tailgating)	N/A	Yes	Yes^	Yes^
	DMS** – Driver Fatigue / Yawning / Smoking / Phone Use / Distraction	N/A	Yes (requires opt. DSM V3 camera for Enhanced Fatigue sensing)	Yes^	Yes^
	In / Out Geofence Alarm	No	No	Yes	Yes

[^] Camera dependent

^{*} ADAS – Advanced Driver Assistance System: ADAS comprises electronic technologies that assist drivers through a safe human-machine interface and results in increased vehicle and road safety. ADAS employs automated technology, such as sensors & cameras, to detect nearby obstacles or driver errors, and respond accordingly.

^{**} DMS – Driver Monitoring System (aka DMS – Driver Monitoring System (aka DSM – Driver Status Monitoring system): The DMS system typically recognises signs of fatigue, drowsiness, distraction & behaviours that cause accidents such as smoking, making telephone calls, and in extreme cases, if the driver has fallen asleep. In all of these cases an alert is emitted to the driver so as to prevent any mishap SM – Driver Status Monitoring system): The DMS system typically recognises signs of fatigue, drowsiness, distraction & behaviours that cause accidents such as smoking, making telephone calls, and in extreme cases, if the driver has fallen asleep. In all of these cases an alert is emitted to the driver so as to prevent any mishap

5 Keys of fleet management.



Control (Compliance): Provides full asset control of your fleet.

- Cargo door triggers: Receive real-time notifications when cargo doors are opened or closed, ensuring security and preventing unauthorized access
- Record critical events and incidents.
- Audits and compliance checks.
- Evidence in incident investigations.



Driving Behavior Improvement: Get the most out of your drivers.

- Fatigue and ADAS monitoring: Employ advanced monitoring systems to detect fatique and implement driver assistance features for safer journeys.
- Improve driver skills.
- Training by surveillance
- Monitor crew activity.
- Smoking, distraction, and cellphone use monitoring



Productivity & Efficiency: Makes your operations more efficient.

- Onboard/reverse screen: Simplify vehicle maneuvering and parking with a dedicated onboard or reverse screen display.
- 2-Way communication system: enable seamless communication between drivers and dispatchers, enhancing coordination and response capabilities.
- Reduce incidents.
- Immediate alerts by email and pop-up icons upon exceptions alarms.
- Audio input & built-in speaker (auto answer) dial in and VoIP option.
- Historical time-based video.



Asset Management: Reduce operational costs.

- Provide real-time visual data.
- Remotely view and assess the condition of assets.
- Enhances security and helps prevent asset theft or unauthorised access.



Safety & Security

- Front and rear-facing cab camera: Capture a comprehensive view inside and outside the vehicle for enhanced safety and monitoring.
- Trailer cameras: Extend visibility to trailers, enabling better maneuvering and monitoring of cargo,
- Video recording: Capture critical events and incidents with high-quality video recording for accurate analysis and
- Side camera: Enhance visibility and eliminate blind spots with side-mounted cameras, ensuring safer lane changes and turning maneuvers
- Combat cargo and fuel theft.
- Infra-red camera capabilities for night viewing.
- Vehicle proximity detection.
- Lane departure alerts.



The Power to Predict

Your all-in-one fleet management solution that goes beyond tracking and reporting.

Professional service centre to outsource your fleet management saving you time and money.

Ctrack Bureau Services offers a fully-fledged service centre with professionals to manage your growing fleet, analyse data and proactively

Get a customised solution with SMART Integrations into your business and individual requirements.

Crystal's scalability extends even further with our SMART Integrations, seamlessly connecting with third-party applications that cater to your specific industry needs. Whether it's activating bespoke SMILE scripts, monitoring trailers, implementing breathalysers, or keeping an eye on

Crystal Analytics is where Telematics and Business Intelligence meet, so that real decisions can be made that not only increase productivity but reduce costs as well. It's big data, simplified - putting the Power to Predict in the palm of your hand.

Professional service centre to outsource your fleet management saving you time and money.

Ctrack Bureau Services offers a fully fledge service center with professionals to manage your growing fleet, analyse data and proactively identify



