STELMOVE

Built for Mining.
Designed for Heavy Equipment.
Powered by Intelligence.

Intelligent Fleet & Heavy Equipment Management for Mining Operations

MOVE SMARTER. GO FURTHER.

MASTER PRODUCT PROPOSAL



Executive Summary

A unified operational platform for mining fleets and heavy equipment.

Mining operations need continuous visibility across fleet movement, production cycles, driver safety, equipment condition, and operational performance.

Stelmove brings telematics, driver workflows, MDVR, ADAS, DMS, AI load estimation, production intelligence, alerts, analytics, and reporting into one integrated mining platform.

Visibility | **Productivity** | **Safety** | **Control** | **Intelligence**



THE CHALLENGE

Mining Operations Need More Than Vehicle Tracking

Knowing where a unit is located is only one part of operational control.

Limited Fleet Visibility

Incomplete visibility into unit activity and operational state.

Difficult Cycle Validation

Manual reconciliation of loading, hauling, dumping and return cycles.

Delayed Breakdown Awareness

Operational losses before maintenance or dispatch can respond.

Driver Safety Risks

Fatigue, distraction, overspeed and unsafe behavior require continuous monitoring.

Fragmented Systems

Telematics, video, driver and production data live in different systems.

Manual Data Consolidation

Reporting and production reconciliation consume time and create inconsistencies.

Real-Time Visibility | Production Intelligence | Driver Safety Monitoring | Operational Control | Unified Data & Reporting

One Platform for Connected Mining Operations

Vehicles. Drivers. Telematics. Video. AI. Operations. Analytics.

Stelmove Solution Overview

One platform. One operational view.

Stelmove Core

Master data, equipment, drivers, shifts, assignments, business rules, user access and audit.

Stelmove Telematics

GPS, speed, ignition, geofence, route, device monitoring and CAN/FMS where available.

Stelmove Driver App

Driver identity, attendance, location validation, shift and operational interaction.

Stelmove MDVR & Video AI

Live video, playback, ADAS, DMS, AI events, evidence and AI load estimation.

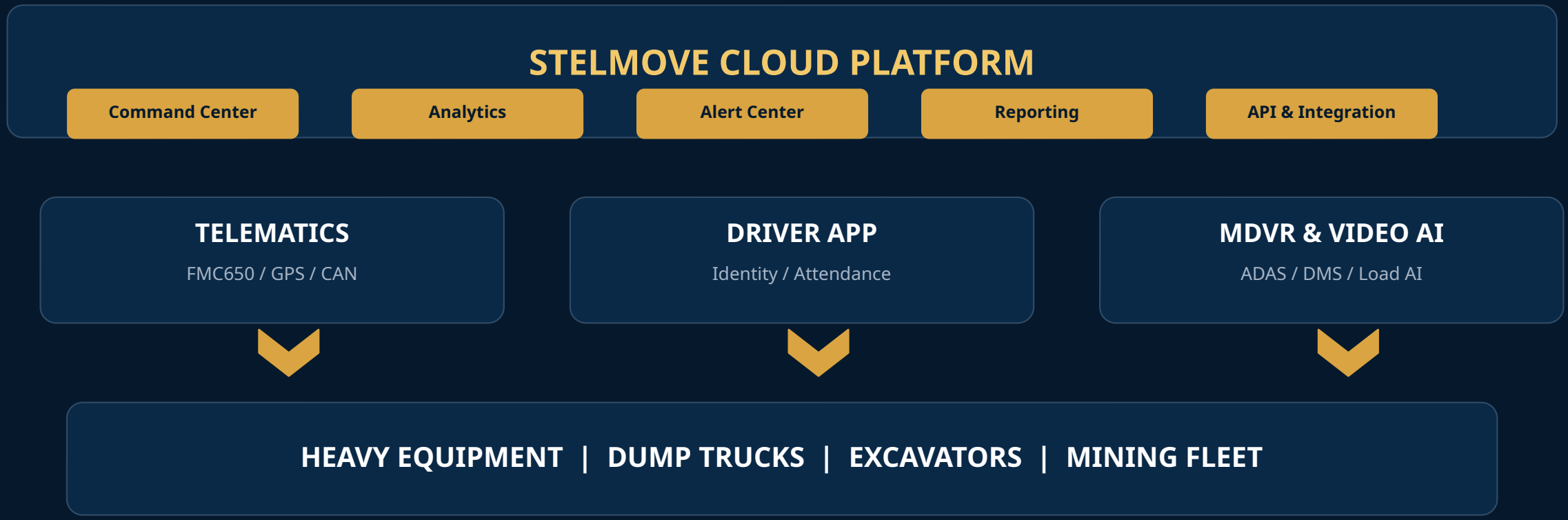
Stelmove Cloud Platform

Command Center, Alert Center, analytics, KPI, reporting, device monitoring and API integration.

Fleet + Driver + Telematics + Video + AI + Production + Safety + Analytics

Connected Mining Intelligence Architecture

Field devices feed a centralized operational and decision layer.



Fleet Visibility & Telematics

Real-time visibility of where each unit is, how it is moving, and what it is do

- GPS position and last update
- Speed, heading and ignition
- Active driver and assignment
- Geofence and route context
- Device online/offline status
- CAN/FMS data where available

Loading Point | **Dumping Point** | **Haul Road**

Fuel Station | **Workshop** | **Restricted Area**



PRODUCTION INTELLIGENCE

From Vehicle Tracking to Production Intelligence

Understand every stage of the mining cycle - not just unit location.



1 LOADING	2 HAULING	3 DUMPING	4 RETURN
Cycle Time	Ritase	Queue Time	Loading Duration	Hauling Duration
Dumping Duration	Delay	Standby	Utilization	Effective Working Time

Cycle exceptions can be flagged automatically: route deviation, excessive loading/dumping time, missing events, unrealistic cycle duration, telemetry interruption, or load-AI inconsistency.

Driver Management

Connect every driver to the correct unit, shift, assignment and operational event.

- Driver master data and digital identity
- Driver login and unit association
- Shift and assignment context
- Attendance and check-in / check-out
- Location validation using smartphone + vehicle telemetry
- Driver activity and safety-event history

LOCATION VALIDATION



SAFETY INTELLIGENCE

See More. Detect Earlier. Operate Safer.

Contextual safety events combine telematics, ADAS, DMS and video evidence.





ADAS

Forward collision warning
Lane departure warning
Unsafe-distance monitoring
Road-risk and proximity events

DMS

Fatigue / drowsiness
Distraction
Phone usage
Smoking / seatbelt compliance

Contextual Safety Event

Driver + Unit + Location + Time + Speed + Video Evidence

Enables faster response and stronger incident investigation.



Contextual Safety Intelligence

Every event is connected with **Driver** + **Unit** + **Location** + **Time** + **Speed** + **Video Evidence**.

MDVR & Video Intelligence

Visual evidence for mining operations and safety response.

- Live multi-camera video
- Video playback and event recording
- Cabin, front, rear, side and cargo camera channels
- Snapshot evidence
- ADAS / DMS event integration
- Camera status and video-loss monitoring
- Incident investigation and audit evidence

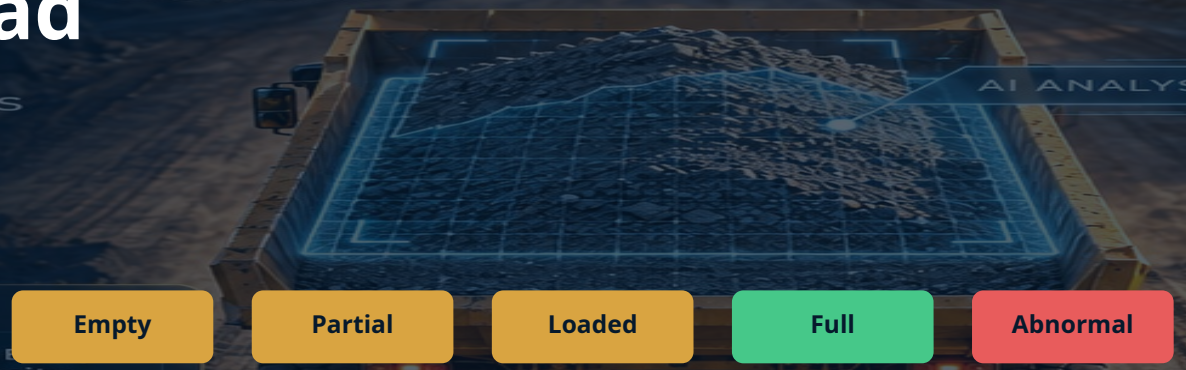
What happened? + What was visible at the time? + Which driver and unit were involved?



VIDEO AI

AI-Powered Dump Truck Load Estimation

Transform visual load conditions into operational intelligence.



Empty | Partial | Loaded | Full | Abnormal

Example

Dump Body Capacity 20 m³
AI Estimated Fill Level 80%
Estimated Load Volume ≈ 16 m³

- Detect underloading tendencies
- Improve loading consistency
- Support cycle validation
- Provide visual evidence
- Support production monitoring
- Reduce manual observation

How It Works

Dump Truck Camera → Video / Image Analysis → AI Load Detection → Load Percentage Estimation → Configured Dump Body Capacity → Estimated Operational Load

Operational Benefits

Detect Underloading | Improve Loading Consistency | Production Monitoring | Visual Evidence | Improve Loading Efficiency | Reduce Manual Observation

Operational estimation only - not a replacement for certified weighing systems.

Stelmove's load estimation is for operational intelligence purposes only and does not replace certified weighing systems.

Alert & Exception Management

A single workflow for operational, safety and device alerts.

- Overspeed
- Route Deviation
- Restricted Area
- Long Idle
- Unit Offline
- MDVR Offline
- Fatigue / DMS
- Breakdown
- Load Anomaly
- GPS Lost

Alert lifecycle

Detected → New → Acknowledged → In Review → Resolved / Escalated / False Alarm

Every important status change can be written to the audit trail.

Maintenance & Equipment Health

Improve equipment readiness and reduce avoidable downtime.

Availability

Operational readiness

MTBF

Reliability trend

MTTR

Repair effectiveness

Downtime

Lost productive time

- Breakdown start / end and duration
- Fault codes where available
- HM / KM where available
- CAN/FMS health data
- Equipment and maintenance history
- Breakdown Pareto and readiness status



Fuel Monitoring

Improve visibility into refueling activity and operating efficiency.

- Fuel-station geofence and arrival events
- Refuel duration and authorized location
- Fuel input or sensor/CAN data where available
- Fuel per HM / KM / ritase
- Fuel anomaly and out-of-geofence refuel
- Link fuel event to unit, driver, shift and location

Fuel Analysis

Total Liter / Unit	**Fuel / HM**
Fuel / KM	**Fuel / Ritase**
Fuel / Ton*	**Anomaly**

**When production / payload data is available.*

Stelmove Command Center

Centralized operational control for dispatcher, supervisor, HSE, maintenance and management.

Dispatcher

Real-time fleet monitoring and response.

Supervisor

Productivity, cycle and exception review.

HSE

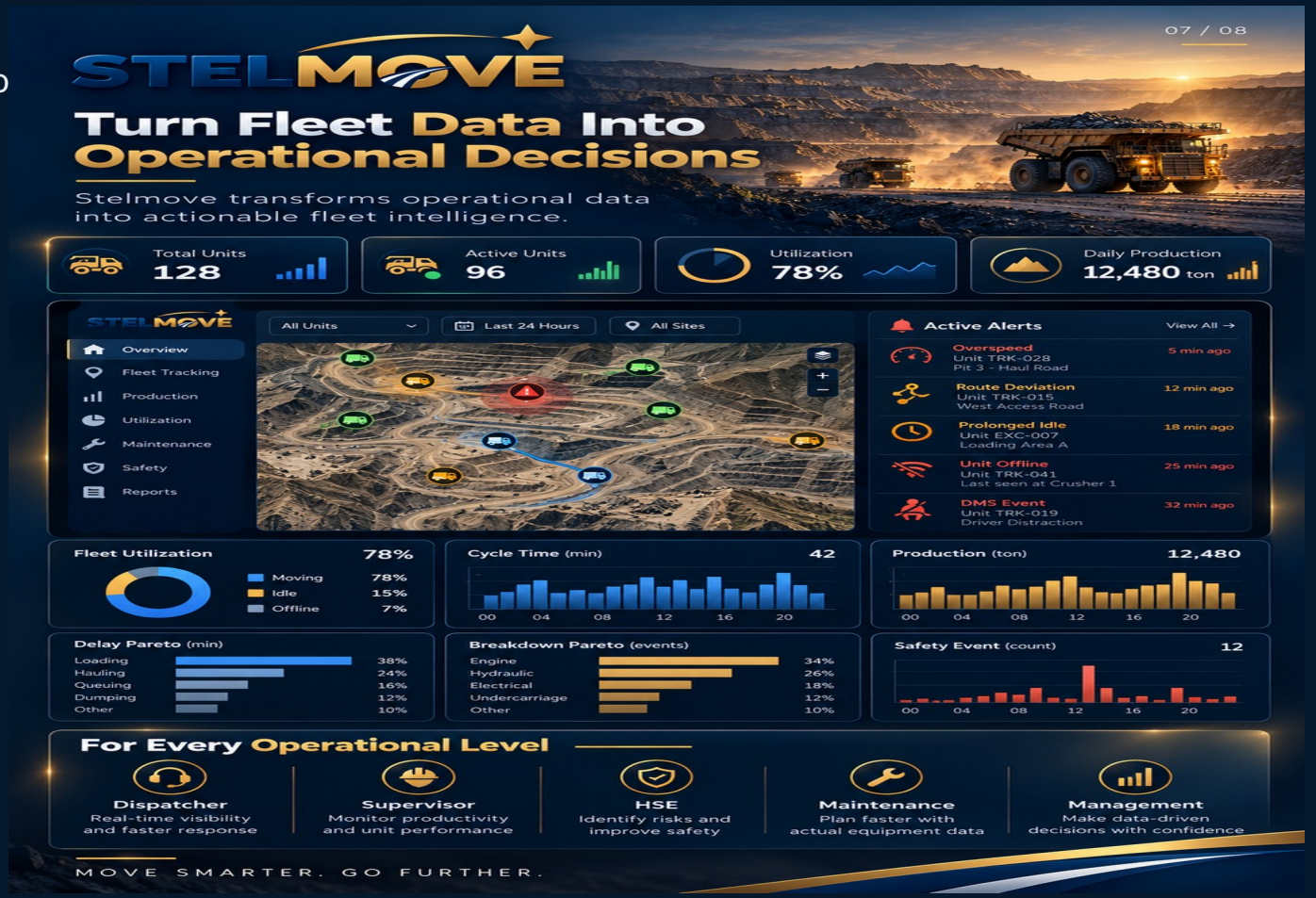
Safety alerts and incident investigation.

Maintenance

Equipment health and breakdown response.

Management

KPI, trends and strategic visibility.



Analytics & KPI

Turn fleet data into measurable operational performance.

- Unit Availability
- Fleet Utilization
- Effective Working Hour
- Cycle Time
- Ritase
- Productivity
- Delay Pareto
- Standby Pareto
- Breakdown Pareto
- MTBF
- MTTR
- Driver Safety Score
- Overspeed Frequency
- AI Safety Event Frequency
- Device Uptime
- GPS Data Quality
- MDVR Uptime

KPI definitions can be configured and aligned to site operational rules.

Operational Reporting

Structured reports for daily operations, production, safety, devices and maintenance.

- **Shift Report**
- **Daily Fleet Report**
- **Production Report**
- **Cycle Time Report**
- **Ritase Report**
- **Driver Attendance**
- **Driver Activity**
- **Safety Alert Report**
- **ADAS/DMS Report**
- **MDVR Event Report**
- **Route & Geofence**
- **Delay Report**
- **Standby Report**
- **Breakdown Report**
- **Fuel Report**
- **Device Health**

Filter by Site • Shift • Unit • Driver • Time Period • Event Type • Operational Status

Integration & API

Designed as an operational platform that can connect to devices and external systems.



Deployment Model

Adapt Stelmove to site connectivity, security policy and customer IT architecture.

Cloud

Centralized platform with internet connectivity.

Private Cloud

Dedicated cloud environment under customer controls.

Hybrid

Combination of site infrastructure and cloud services.

On-Premise

Deployment inside customer-controlled infrastructure when required.

Selection factors: Site Connectivity • Security Policy • Video Bandwidth • Data Governance • Operational Requirements

Implementation Approach

Structured deployment from site assessment to operational rollout.



Site survey • Fleet inventory • Network assessment • Master data • Device configuration • Pilot validation • User training • Operational tuning

Security & Audit

Controlled access and traceability for operational data integrity.

User Authentication

Controlled account access

Role-Based Access

Permission by operational role

Device Identity

Registered and paired field devices

Activity Logging

Important user and system actions

Change History

Master, assignment, rule and geofence changes

Correction History

Cycle, attendance and operational corrections

Auditability supports transparency, accountability, investigation and SOP compliance.

BUSINESS VALUE

One Mining Fleet. One Intelligent Platform.

A connected operational view that supports faster, safer and more informed decisions.

VISIBILITY

Know where every unit is and what it is doing.

PRODUCTIVITY

Monitor cycle, ritase, utilization, loading and performance.

SAFETY

Combine telematics, ADAS, DMS and Video AI.

CONTROL

Centralize alerts, exceptions, devices and workflows.

INTELLIGENCE

Turn operational data into actionable insight.

Request a Demo →

STELMOVE

Built for Mining. Designed for Heavy Equipment. **Powered by Intelligence.**

MOVE SMARTER. GO FURTHER.

Why Stelmove

Built around the realities of mining and heavy equipment operations.

FROM VEHICLE TRACKING



TO PRODUCTION INTELLIGENCE

Fleet | Driver | Telematics | Video | AI | Production | Safety | Analytics

Stelmove connects these capabilities into a single operational ecosystem - rather than treating them as separate systems.



One Mining Fleet.
One Intelligent Platform.

Built for Mining. Designed for Heavy Equipment. Powered by Intelligence.

MOVE SMARTER. GO FURTHER.

REQUEST A DEMO

Intelligent Fleet & Heavy Equipment Management for Mining Operations