



Macrocomm Fleet Analytics - Systems & Solutions Overview

Introduction

Macrocomm Fleet Analytics is a pioneering leader in the realm of fleet management, redefining industry standards through the delivery of cutting-edge data analytics. We specialise in delivering comprehensive fleet management solutions that transcend traditional commercial offerings. Our innovative approach leverages data analytics, accurate costing data, and trip information derived from telematics devices to empower businesses with unparalleled insights into their fleet operations.

Five years in development and benefiting from nearly seven years of machine learning, launched in February 2018, our fleet analytics system has found favour in the commercial fleet sector where we now manage fleets, ranging from three vehicles to over six thousand vehicles in size, for numerous clients from SMMEs through to large corporates.

Core to successes is our ability to integrate data from myriad sources, seamlessly. Stemming from the birth of our platform/unit agnostic Fleet Analytics product, we have fine-tuned the art of data cleansing, aggregation, normalisation and presentation, as well as advanced systems integration.

As dedicated fleet specialists, our agile development team delivers bespoke, dashboardstyle representations of key metrics and actionable insights, enhanced by targeted customised reporting, designed in conjunction with each client.





Contents

	1
Introduction	2
Macrocomm Fleet Analytics	4
Fleet Analytics Overview:	4
Distinctive Features:	4
Data-Driven Decision Making:	4
Driver Behaviour Analytics:	4
Actionable Insights:	5
Customised Financial and Operational Reports:	5
Platform Agnostic Telematics Data Harvesting:	5
Key Benefits:	5
Cost Savings:	5
Enhanced Safety:	6
Optimised Efficiency and Streamlined Operations:	6
Fleet analytics summary:	7
Macrocomm Smart Fleet	7
Fleet Management Overview:	7
Telematics Units:	8
Smart Fleet Management Platform:	9
Map view navigation:	9
User customisable view:	9
Reporting Functions:	10
Trip history and playback:	10
Alerts (managing by exception):	10
Additional Functions:	11
API capabilities:	11
Android App:	11
Fleet Management Summary:	12



Macrocomm Fleet Analytics

Fleet Analytics Overview:

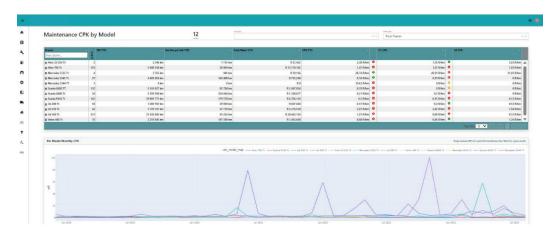
Fleet Analytics revolves around delivering actionable insights to a fleet owner/manager. By establishing the base of 'to-the-cent accurate total cost of ownership' (TCO) and then identifying potential revenue enhancements, we empower fleet owners with an optimisation tool that positively impacts on overall efficiencies and resultant running costs.

Distinctive Features:

At Macrocomm, we stand head and shoulders above the competition by harnessing the power of data analytics to reveal actionable insights aimed at optimising efficiency and minimising running costs.

Data-Driven Decision Making:

We prioritise informed decision-making by leveraging the wealth of data generated by telematics devices, along with all costing data attributable to the fleet, processed by our advanced Al-based analytics engine, to form the foundation for a comprehensive understanding of fleet performance.



Driver Behaviour Analytics:

Our expertise extends beyond conventional fleet management, as we specialise in identifying and rectifying suboptimal driver behaviour. By analysing driver behaviour data, we assist businesses in cultivating safe, efficient, and cost-effective driving practices, ultimately leading to substantial reductions in fleet running costs.



Actionable Insights:

Macrocomm takes data analysis to the next level by translating raw data into actionable insights. Our web-based dashboard offers real-time visualizations and reports, enabling fleet managers to monitor and optimise operations seamlessly. This dashboard serves as a central hub for monitoring various metrics, including fuel efficiency, maintenance needs, and driver performance.

Customised Financial and Operational Reports:

We understand that each business has unique operational requirements. Macrocomm delivers customised financial and operational reports tailored to the specific needs of our clients. These reports provide a comprehensive overview of fleet performance, running costs and wasteful/unnecessary expenditure, enabling businesses to make informed strategic decisions.

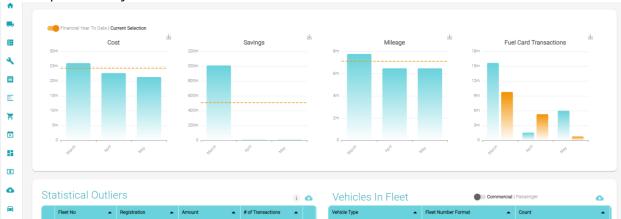
Platform Agnostic Telematics Data Harvesting:

Through automated data harvesting from foreign platforms, we have created an environment that allows the implementation of the Macrocomm Fleet Analytics system using existing telematics devices. As such, implementation of the system is without physically touching vehicles, resulting in speedy and non-disruptive roll-out.

Key Benefits:

Cost Savings:

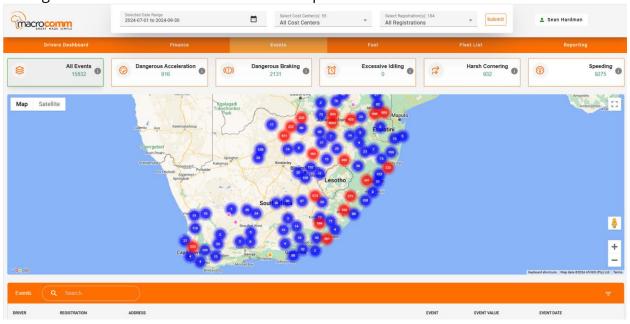
Through accurate costing data and driver behaviour analytics, Macrocomm empowers businesses to implement measures that significantly reduce fleet running costs, enhancing overall profitability.





Enhanced Safety:

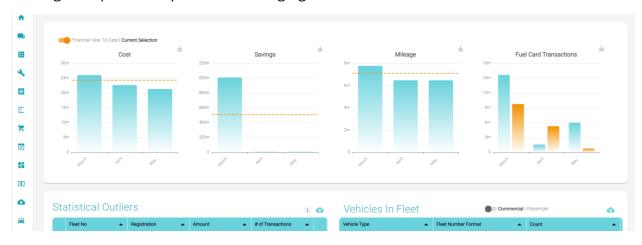
Our driver behaviour analytics focus not only on cost reduction but also on safety enhancement. By addressing risky driving behaviours, we contribute to creating a safer driving environment for both drivers and the public.



Optimised Efficiency and Streamlined Operations:

Our solutions go beyond basic fleet management, optimising operational efficiency through data-driven insights. This leads to better resource allocation, improved route planning, and reduced vehicle downtime.

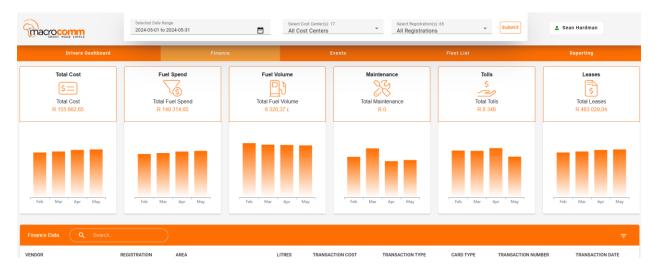
The web-based dashboard centralises fleet data, streamlining the monitoring and management of operations. This real-time visibility leads to more proactive decision-making and quicker responses to emerging issues.





Fleet analytics summary:

Macrocomm Fleet Analytics is at the forefront of fleet management evolution, leveraging data analytics and telematics devices to provide businesses with unparalleled insights into their operations. Our commitment to accurate costing data, driver behaviour analytics, and actionable insights sets us apart as a game-changer in the industry. Through our customised reports and web-based dashboard, we empower businesses to take control of their fleet operations, reduce costs, enhance safety, and optimise efficiency.



Macrocomm Smart Fleet

Fleet Management Overview:

Macrocomm Smart Fleet is a fleet management platform facilitating remote eyes-on-fleet through a combination of an intuitive PC-based and Android-based tracking platform informed by a range of basics to advanced telematics units. Whether monitoring via the web-app or mobile-app, access to the platform is from anywhere on the planet with internet connectivity.



Telematics Units:

Our telematics offerings start from basic tracking capabilities (dot-on-a-map) and top out at sophisticated units capable of monitoring multiple sensors, including but not limited to, fuel, door open/close, tyre pressure, cargo hold temperature/humidity/door status and CANBUS information.

Superior edge computing, across the entire range of units, facilitates onboard processing of geo-zone, driver ID, GPS speed and 3-axis accelerometer data, adding to the efficiency in transmission of the abundance of data pushed to the servers. Further



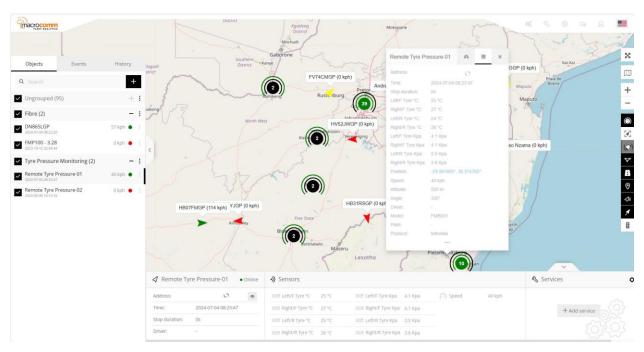
transmission of the abundance of data pushed to the servers. Further data processing at server level surrounding customised sensors, alerts and business rules (amongst many more metrics) feed the user interface.





Smart Fleet Management Platform:

The feature rich, web-based, Smart Fleet Platform is an intuitive and user-friendly management/viewing platform facilitating a dot-on-the-map view along with location data, a host of management tools and numerous reporting functions.



Map view navigation:

- Clustered view of assets with mouse-click zoom-in
- On-map click on vehicle to reveal info pop-up
- Sidebar vehicle listing, grouping, filtering and selection with events and history tabs
- Scroll-wheel zoom in/out

User customisable view:

- Retractable side bar (displaying vehicle, events and history tabs) to open up the map view
- Retractable, user configurable, bottom bar to facilitate on-screen per selected vehicle metrics monitoring such as:
 - Location street address and stop duration with click-through to street map
 - Driver ID
 - Sensor values (fuel tank level, tyre pressures, cargo hold temperature, current speed etc.)
 - Service and maintenance schedule
- User selectable map type, geo-zone/POI overlay toggle, live traffic overlay toggle



Reporting Functions:

- On-demand reports
- Scheduled reports (daily, weekly, monthly)
- User selectable scheduled report delivery time
- User selectable PDF, CSV, HTML, ISON, XLS or XLSX report format
- Over 30 report type options based around trips, time, drivers, events, geo-zones, routes vehicle status, maintenance schedules etc

Trip history and playback:

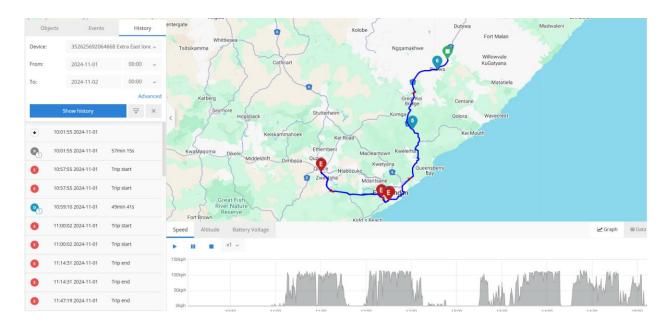
- User selectable date range
- On-map trip overlay with event flags
- 1x to 6x playback speed
- On-screen data log view
- Graphical or data log depiction of speed, altitude and any additional user configured sensors

Speed

Altitude

Battery Voltage

• Download/export in CSV, GSR, KML or GPX file formats



Alerts (managing by exception):

Alerts are linked to events (business rules) which determine normal operating parameters. Violation of the set parameters will raise an on-platform/in-app pop-up alert which can be instantly distributed via email or SMS to any number of designated recipients.

Any metric being monitored can raise automatic alerts, based on the business rules that will trigger events – a few examples listed below:



Burgersfort

Steelpoort

oTafelkop

- Accident/Impact alert
- Tyre pressure and temperature
- Cargo-hold temperature and humidity
- Sudden fuel loss
- Maintenance reminders
- Speeding
- Harsh acceleration, braking and cornering
- **Excess idling**
- Geo-zone violations (entering/leaving/parked)
- SOS
- Route departure
- Custom alerts (e.g. Cargo door open outside of the designated geo-zones)
- Trip start/end

Additional Functions:

- User creation and management interface with permissions control per user
- Task/order creation, distribution and management
- Driver ID (RFID, iButton or manual allocation)
- Geo-fence management
- Route management
- Camera event snap-shot storage
- User configurable landing page (dashboard)

API capabilities:

The platform provides an API interface to facilitate integration of platform data into third party platforms or the client's existing systems, as well as the ability to develop fully customised reports.

Android App:

The Android app adds ease of use within the mobile environment.

- Map view of all or selected vehicles
- User selectable map type
- Alerts/events list view with timestamp and tap to view on map
- Trip playback with sensors (graphical and or data log) tap to switch between graphical or data log view
- Vehicle list with edit functionality (dependent on user rights)
- Add new vehicle (dependent on user rights)
- Remove vehicle (dependent on user rights)







Fleet Management Summary:

Offering both PC and Android options, this versatile and capable fleet management system, backed by a robust and well-documented API layer, ticks all the boxes for the modern and progressive fleet owner/manager.

The system also caters for resellers, with white-labelling options available to resellers and end-users alike.

