In-Vehicle Monitoring System (IVMS) for road safety and better driving behavior

Innovation and precision for better IVMS management

- Industry practices, reasons for IVMS, benefits
- IVMS devices, accessories, installation, partners
- IVMS software requirements, reports, alerts
- Journey management

Software-Management GmbH
Linzer Straße 61/5
4840 Vöcklabruck, Austria
Tel: +43 7672 31788
info@gps.at

For German Customers:
Hopfenstraße 8
80335 Munich, Germany
Tel: +49 89 125013900
info@gpsfleetsoftware.com

www.gpsfleetsoftware.com
In-Vehicle Monitoring System (IVMS)

The global necessity for safe and environmental friendly transportation

Sound business practices in transport have become a necessity.
- Transportation, operation fleets and driving vehicles is a major expense for any business, thus cost control is necessary for prudent management.
- Every year, road fatalities and accidents causing deaths and heavy injuries are a severe issue that noone likes to deal with. A company with a safe driving policy is doing everything to reduce the number of accidents and consequently also lowers the costs associated with the severe road accidents.
- A reliable company with a good reputation will do everything to train the drivers to drive their vehicles carefully and to attain to life-critical rules.
- Global players such as SHELL keep their drivers safe through periodic training, by limiting their journeys, avoiding too long driving hours and by enforcing road safety standards.

IVMS rules & standard

- The oil & gas industry is the major driver for enforcing stricter IVMS standards. The names of the IVMS standards differ from country to country, for instance, in Oman it is called OPAL Road Safety Standard 2017.
- Most standards follow the same principle rules and procedures and companies and subcontractors that work in the oil & gas industry are obliged to fulfill the criteria.

Major goals of road-traffic-safety systems

- To foster environmental friendly, safe and economical driving style
- To reduce the number of (fatal) accidents for the corporate fleet
- To avoid unnecessary trips with better planing and unnecessary risks (by fatigue driving)
IVMS GPS Tracking devices

Fleet-10 GPS device for standard IVMS features

The GPS Telematic device (on board computer) is a key element for data recording and therefore it must fulfill highest quality standards:

- Made from reliable producers
- 4 digital inputs for connecting ignition, seatbelt violations, panic button
- Authorized driver scenarios using driver identification
- On board local data storage for saving second-by-second accident data
- Events for harsh braking and harsh acceleration
- Recognizing power or battery disconnection or tampering situations
- Second-by-second data for accident analysis

Advanced features

- FMS CAN-High and CAN-Low connection for trucks
- CANBUS data adaptor for more than 400 different light and commercial vehicles
- RS232 interfaces for serial data communication for sensor data

Future hardware highlights

- H2S gas detector for gas leaks and faster evacuation
- Tire pressure sensors to high costs and accidents due to bad tires

IVMS Red-Amber-Green overview

Download as PDF or Excel
View all IVMS tabsheets
Manage lost keys, rewards, faults
Select dates and drivers
Click for driver IVMS details
Configure scoring code
How to make an IVMS system run

**GPS signal**

- Our devices use the American GPS and the Russian GLONASS as well as Galileo to document the driving track and speed.
- If there is no GPRS network coverage, the tracking data is stored on the device.

**What about the SIM cards?**

- Your IVMS vendor will take care for supplying the necessary data SIM cards.

**GPS Data Servers**

- All data is sent to the global GPS Data Server that can be hosted by us, the vendor or by big customers.
- All tracking data can be stored locally in your company (respectively country).
- Different customer account can be safely operated on one GPS Fleet Server that can be hosted by the vendor.

**Important general requirements**

- Works with different mapping and reverse geocoding sources such as OpenstreetMaps, Google Maps, TeleAtlas.
- Multilingual web-based software.
- Reports can be downloaded as PDF or Excel or generated automatically via Email.
- Future updates and customization are possible.
- APIs and JSON interfaces are available.
- European quality software documentation and quality control with testing scenarios.
- Smartphone apps are available.

**Important standards**

- Complies with OPAL Road Safety Standards 2017.
- SP2000 Road Safety Standard.
- Other certifications are possible at any time upon request.
Special IVMS Module

Current fleet position at a glance

- Map overview with asset symbols and status colours
- Use different maps
- Show geofence hotspot areas
- Asset lists with colour codes and add-on information

Analyzing past and events and speeds

- Displaying historic trips and stops for several days on the map
- Analyze events, alerts and driving speed and additional data
- Working with different speed limits depending on road types and day vs. night time

Work with geofence areas

- Display geofence areas in the map as polygon, circle or square
- Import contacts as geofence
- Flexible alerts when entering/leaving a designated hotspot (based on time requirements, different assets, via sms, email or call)
Special IVMS Event Parameter Settings

Our software works with all important IVMS events. All IVMS alarms can be managed and configured in the software:

- Road-based speed alerts (Driving at speed higher than 10km/h above the speed limit for consecutive 30 seconds)
- Overspeeding in geofence areas
- Excessive over-speeding (life-safety critical event)
- Seatbelt Violations
- Harsh Braking
- Night Driving alerts for driving outside geofence areas for a longer period
- Panic button pressed for the duration exceeding 5 seconds
- Power/Battery Disconnection and tampering alerts (movement without ignition)
- Exceeding driving time limits for light and heavy vehicles

RAG Event Reports (Red-Amber-Green scoring)

- Driver based rating with clear scoring best to worst drivers
- Monthly Report of the IVMS Vendor

IVMS Event Reports

- Harsh Braking Monthly Report
- Over-Speeding Monthly Report
- Event reports for un-authorized night driving or exceeding driving times

Special IVMS events

- IVMS Lost Key Report
- Tampering or fault report
Important Journey Management Module

Reasons for journey management

- Responsible for safety during transport
- Reduce unnecessary night driving
- Check arrivals, departures and break times
- Control of checkpoints and contact drivers that are late
- Provide journey management plan to drivers

Journey management with printout journey form

- Create journey tour plans in the software that can be re-used
- Define route, checkpoints and time to arrive at the checkpoints
- The journey plan can be printed out as PDF with flexible fields (passengers, comments, checkboxes, etc.)

Automatic journey plan alerts

- Trigger alert if journey is not started on time
- Alert if checkpoint is not reached or left on time
- Alert if break time at the checkpoint is too short

Advanced tour services

- Starting and stopping tours with offline navigation on a smartphone device
- Tour overview reports
Contact us or our local partners

Local certified IVMS vendor for Oman:

White Light Services & Trading L.L.C
P.O Box: 1197, P.C: 112
Ruwi, Sultanate of Oman
Tel.: +968 24811236 / 24814853
GSM: +968 91393836
Email: info@whitelight.om

Software Developing Headquarter
Software-Management GmbH
Linzer Straße 61/5
4840 Vöcklabruck, Austria
Tel: +43 7672 31788
info@gps.at

For German Customers:
Hopfenstraße 8
80335 Munich, Germany
Tel: +49 89 125013900
info@gpsfleetsoftware.com

www.gpsfleetsoftware.com