



Telematics

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More than 2.3 million people were injured in motor vehicle accidents in 2013, according to the national Highway Traffic Safety Administration. The economic consequences of these crashes to employers have been estimated at more than \$60 billion dollars. Over time, Driver Safety can enable organizations to reduce and lower liability cost and operational expenses.

Telematics would provide the state with a cloud-computing platform that offers visibility into day-to-day field operations. The system will allow the end user to have back-office analysis of aggressive maneuvers such as jackrabbit starts, hard braking, harsh turns, and speeding; enabling management to coach poor drivers who put the state at risk, according to agreed-upon parameters. Telematics vehicle hardware also provides the drivers with feedback about their driving behavior so they can make immediate changes to their driving style. Telematics allows managers to make decisions on fleet performance, asset utilization based on real-time information, monitor the vehicles' health to lower maintenance costs, provides reports on gas consumption, vehicle stops, unnecessary idling, the ability to create ad hoc reports, and the ability to protect the state's fleet by being able to locate and recover stolen vehicles.

Below is a list of features:

- Vehicle Management
 - Basic fleet management
 - Vehicle diagnostics
 - Fleet preventive maintenance
 - Route replay / turn by turn breadcrumb
 - Real time alerts
 - Fleet maps

- Driver Management / Coaching
 - Automated driver ID (key fob)
 - Find closest driver / vehicle to (landmark, vehicle, address)
 - Driver behavior alerts
 - Driver scoring
 - In-vehicle driver coaching (buzzer)
 - Driving in reverse
 - Posted speed

- Reporting
 - Full Canned Reporting suite
 - Custom reporting engine (on demand)
 - Driver-centric reporting
 - Fuel reporting with WEX integration
 - Extended vehicle history on-demand
 - Extended vehicle history archived
 - Land marking/Geofencing
 - Data analytics

- Operations / Management
 - Navigation integration
 - 2-way messaging
 - Custom hierarchy (support large fleet)
 - Admin. custom access

- Regulatory Compliance
 - HOS compliance / Driver logs
 - State mileage reporting
 - State mileage reporting with fuel tax data

- Safety Focus
 - Driving style and safety reporting
 - Posted speed
 - Harsh braking / Acceleration
 - Hard cornering
 - Seatbelt
 - Driver scorecard
 - Emergency / Panic Button

- Miscellaneous
 - Web-based
 - Plug n Play units (self-installation enabled w/ support)
 - API/third party integration
 - Mobile app / Mobile site
 - Customizable dashboard
 - Sensors (PTO, doors open/closed)
 - Innovative green fleet features

- Other: Fleet
 - Application programming interface (API) — the ability to integrate third-party software applications
 - Track driver with a fob
 - Driver work plan
 - Coach: Data that provides the scorecard; driver view of the scorecard
 - Leaderboard: How a driver ranks

- Jobs: A work order system; only works with the driver information; has a space for customer to sign
- Hardware Units
 - Compatible with light and heavy-duty vehicles with an OBD-II diagnostic link connector or J1708/J1939 6-pin or 9-pin diagnostic link connector for both power and diagnostic data gathering. Many patents are available for review regarding this functionality
 - Works for all vehicles – the harness type determines how the unit operates
 - Sensors and serial port built into the box
 - Information coming from OBD, and made available, includes at a minimum:
 - Date/time of vehicle monitor
 - Malfunction Indicator Lamp (MIL)
 - Active Diagnostic Trouble Codes (DTC's)
 - Catalyst Comprehensive Component
 - Exhaust Gas Recirculation (EGR) System
 - Evaporative System
 - Fuel System
 - Misfire
 - Oxygen Sensors
 - Secondary Air Systems
 - Emission Status
 - Calculated Load Value
 - Engine Speed (RPM)
 - Coolant Temperature
 - Intake Air Temp.
 - Must have download capabilities of above information
 - Cellular and GPS antennas are internal to the unit, with an option for an external antenna
 - Also offers a long-lasting battery powered unit for unpowered assets
- Safety Reporting
 - The solution has the following safety reporting and alerting:
 - User-defined threshold speed
 - Posted speed
 - Seat belt usage for some light duty, American-made vehicles
 - Hard braking and harsh acceleration event reporting
 - Based on real speed data
- Roadside Assistance
 - Includes roadside assistance for all vehicles. Roadside assistance package covers up to 4 instances per vehicle per year
- Vehicle Recalls
 - Information coming from the National Highway Traffic Safety Administration regarding vehicle recalls is available
- APIs/Integrations
 - Has various open APIs for accessing raw data to integrate into third party solutions

- Passes information like trouble codes, odometer, engine hours and PTO time to vendors such as Asset Works, ARI, ESRI, to name a few, for use in specialized reporting and monitoring of fleet vehicles
- GPS Tracking
 - Tracking with 2-minute intervals, with the option for 1 minute, 30, or 15 second
 - Information includes date, time, max. speed, heading, GPS location, direction, odometer, etc.
 - Ability to view historical GPS tracking online
 - Stored GPS tracking information when vehicle is out of cell coverage
 - Landmarking and geofencing capabilities that allow different locations to be highlighted
- Software and Reporting
 - Software is completely Web-based, requiring no software installation of any kind on customer computers, laptops, or mobile phones
 - Software has administration including unlimited grouping hierarchy, unlimited users, unlimited geofences and landmarks, and secondary and tertiary methods to group vehicles outside of the normal grouping hierarchy
 - Reporting has ability to be compiled and run on specific occasions, as well as scheduled to be run, and sent to specified personnel, at desired intervals
 - Software produces the following reports:
 - Excess speeds
 - Hard braking
 - Harsh acceleration
 - Idle time
 - Geo-fencing/Landmark violations
 - Stop detail report
 - Vehicle activity
 - Begin/End of Day
 - Fuel usage and MPG
 - Odd hours
 - Smog check
 - Greenhouse gas emissions
 - Odometer and engine hours
 - Fleet utilization
 - Diagnostic/Alert code communication
 - Download capabilities of above information
 - Fuel efficiency
 - Ability to calculate or report miles per gallon (MPG) data
- Real Time Exception Alerts
 - DTCs/MIL
 - Geo-fence violations
 - Hard braking
 - Harsh acceleration
 - Odd hours
 - Sensors
 - Idle time

- Speeding (threshold and posted)
 - Power lost/tamper (real time notification, not after the fact)
- Fuel Card integration
 - Monitor and track all fuel purchases as they post to your account
 - Set purchasing limits by driver and other criteria
 - Track individual vehicle fuel performance
 - Analyze fuel consumption patterns
 - Manage your entire fuel purchasing process from one secure website
- Training
 - Train the Trainer and Administrator training is provided. Training may take place on location at the Customer location or via WebEx, at the Customer's discretion. Training also available online through web interface
- Warranty
 - Standard for hardware and installations is a lifetime limited warranty