



CONSIDERATIONS FOR COMPLYING WITH THE ELD MANDATE

A guide for companies to get the most return on investment
from their fleets while complying with regulation

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Every day companies rely on more than three million truck drivers to transport products all over the U.S. Shockingly, almost 400 motorists and truck drivers are killed in large truck crashes every month – and one third of these fatalities and injuries are related to fatigued truck drivers¹.

With more than 500,000 Hours of Service (HOS) violations in 2013², it is clear that some truck drivers are overworking and putting themselves and millions of others on the road at risk. The results have been proven – there are too many violations, too many tired drivers and too many crashes.

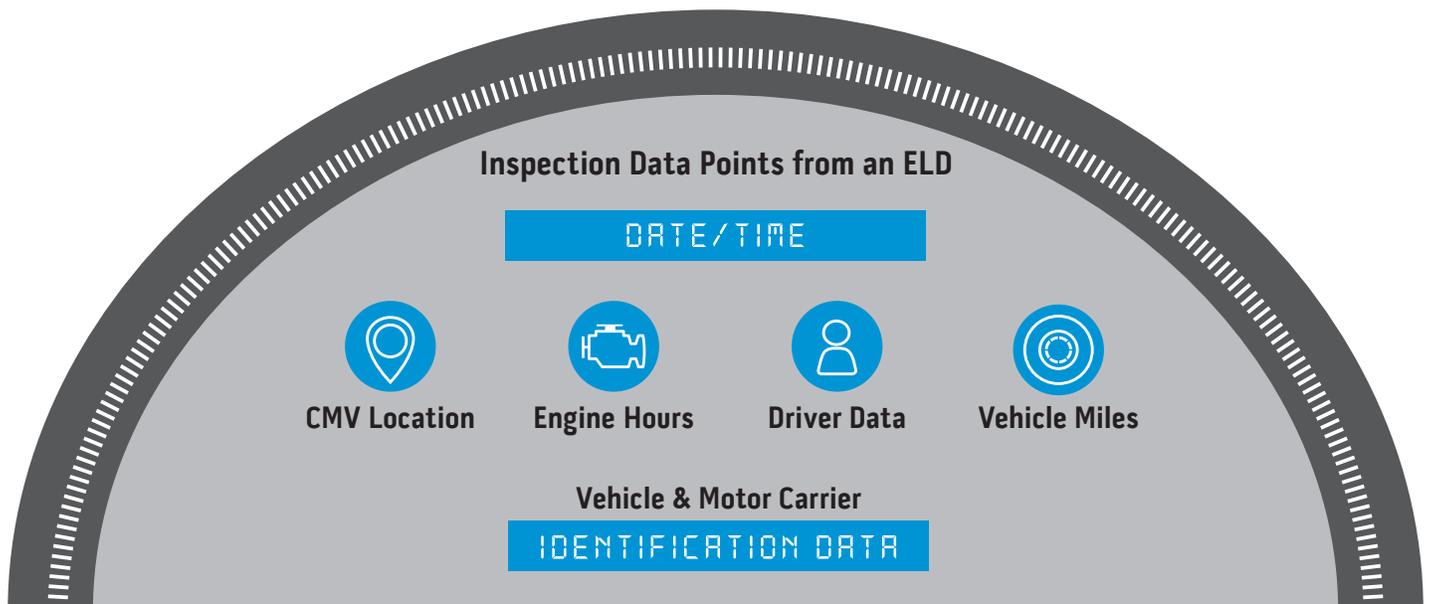
In response to this safety crisis, in 2012, Congress enacted the “Moving Ahead for Progress in the 21st Century” bill or MAP-21, which outlines the criteria for highway funding. In it was also a provision requiring the Federal Motor Carrier Safety Administration (FMCSA) to develop a rule mandating the use of Electronic Logging Devices (ELDs) to electronically record a driver’s Record of Duty Status (RODS), which includes HOS, as opposed to recording manually with paper logbooks.

This mandate aims to provide a technology solution that will help reduce crashes, injuries and fatalities in the trucking industry. In this white paper, we take a deep dive into what the new mandate entails, the functions and features of ELDs, as well as advice on how your company can plan a smooth and successful implementation of these devices into your system.

UNDERSTANDING THE REGULATION

The proposed FMCSA mandate includes a number of provisions intended to help reduce crashes, injuries and fatalities involving large trucks and buses. The mandate aims to hold motor carriers and drivers to the foremost safety standards while removing the highest risk drivers, vehicles and carriers from the road.

The rule is based on a series of previous rulemaking events, first of which is the FMCSA’s rule 395.15, which requires automatic on-board recording devices (AOBRDs) to automatically record a driver’s duty status and any changes in status, as well as the amount of time they operate the vehicle. In the current rule, if requested by law enforcement, drivers must be able to immediately present the required AOBRD display – soon to be referred to as an ELD – information for the previous seven days.



¹Planning a Successful Electronic Logging Device (ELD) Implementation, PeopleNet, 2013 ²PeopleNet data, 2013

The FMCSA's new ELD mandate will establish the following:

1. Minimum performance and design standards for recording hours-of-service through ELDs.
2. Rules for the mandatory use of ELDs by drivers currently required to prepare HOS as a part of RODS.
3. Requirements concerning HOS supporting documents.
4. Measures to address concerns about harassment resulting from the mandatory use of ELDs.

While AOBDRs, EOBRs (Electronic Onboard Recorder – a term used to define a more comprehensive event recorder, language that is now vacated) and ELDs are oftentimes used interchangeably, one of the differences with ELDs is that they sync with a truck's engine to capture additional data points such as power status, motion status, miles driven and engine hours to ensure compliance. Under the new mandate, all of this information should be available to authorized safety officials during roadside inspections and as part of on-site or other reviews.

WHAT ARE ELDs AND WHY DO WE NEED THEM?

For many years, drivers have been using paper logbooks to record their compliance with HOS requirements. However, this process is incredibly time consuming: Each year 4.2 million drivers spend 110 hours completing paper logbooks³. ELDs improve this process by automatically recording HOS on an in-cab device, which is connected directly to the truck's engine.

Since filling out paper logbooks is all that many drivers know, it is important to point out some of the benefits of these new devices. Drivers should understand that some systems actually afford more drive time by tracking HOS by the minute vs. 15-minute increments. In addition, roadside inspections will be much faster, as drivers will simply need to provide a screen display of their e-logs or take part in a roadside data transfer. Drivers will also have the tools and data necessary to avoid stiff financial penalties under CSA (Compliance, Safety, Accountability) and reduce insurance premiums due to a reduction in accidents, among others.



Common ELD Features

1. The ability to electronically track a driver's HOS
2. Integral synchronization with a truck's engine to ensure data from driving segments is captured
3. Near real-time back office management of driver HOS



Drivers using ELDs save an estimated 20-40 minutes per day, adding up to **50 HOURS PER YEAR.**

ELD Driver Benefits



- Improve work-life balance
- Monitor vehicle health and performance
- Improve safety and efficiency
- Earn a driver more money



- Keep dispatchers up-to-date on a driver's status
- Accurately track detention time
- Provide real-time access to information from the back office



- Save drivers time by reducing paperwork
- Reduce and eliminate HOS violations
- Store vehicle inspection reports and other important data

³Tear Up the Paper, iFOCUS Electronic Onboard Recorders, iTECH, December 2004/January 2005

IS MY FLEET AFFECTED?

The ELD mandate applies to all drivers who are currently required to keep RODS. According to the FMCSA, the mandate is estimated to affect approximately 3.1 million trucks and 3.4 million drivers. Short haul drivers operating within a 100-mile radius or drivers without a Commercial Drivers License (CDL) operating within a 150-mile radius will fall under an HOS exemption to RODS unless they are required to keep RODS in eight or more days out of every 30 days.

Carriers and drivers using paper logs today will be required to install or use a compliant ELD two years after the effective date. Those who have already implemented AOBDRs will have two additional years to comply, at which time they will need to adopt ELDs.

To address start-up cost concerns associated with some devices used to track HOS compliance, the FMCSA has provided that tablets, rugged handhelds and smartphones can be used as long as the system complies with the ELD specs.

395.15 compliant AOBDR can be installed and used as an ELD until November 2019

OCTOBER 2015: ELD MANDATE PUBLISHED



NOVEMBER 2015: ELD COMES INTO EFFECT



NOVEMBER 2017: COMPLIANCE DATE



NOVEMBER 2019: LAST DATE TO USE 395.15-COMPLIANT AOBDRS

FLEETS HAVE TWO YEARS AFTER THE RULE IS ENACTED TO COMPLY

FLEETS ALREADY EQUIPPED WITH AOBDR TECHNOLOGY WILL HAVE AN ADDITIONAL TWO YEARS TO ENSURE COMPLIANCE

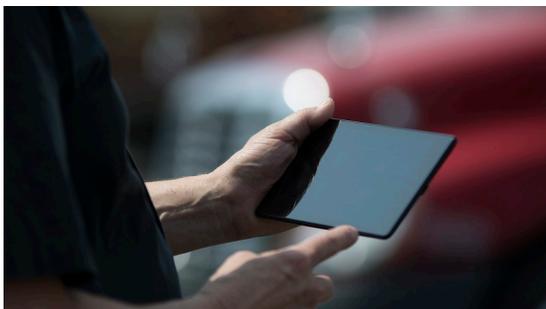
WHAT OPTIONS DO I HAVE?

If your fleet falls under the new mandate requirements, there are a number of devices available that can be used as an ELD.



Due to reliability and ease of use, a Fleet Management System (FMS) is the most common type of solution available today. These are often installed in the cab of a truck, and include a display and onboard computer (OBC) that provide critical HOS information to the driver, including number of hours driven, on-duty hours recorded and remaining available hours.

Typically rugged stationary hardware, a FMS is not reliant on a driver's mobile device for communication. However, data will often be transmitted wirelessly to the back office, allowing fleet managers, safety managers and dispatchers to review HOS information in near-real time.



Per the proposed mandate, the device must also be fixed, mounted and within arm's reach of the driver while the vehicle is in operation. When the vehicle is not in operation, mobile solutions also give drivers flexibility and allow for extended productivity. Drivers using a smartphone or tablet outside of the cab can perform walk-around vehicle inspections, complete Proof of Delivery forms, or stay connected with family and friends.

A PERFECT MATCH: SELECTING THE RIGHT ELD FOR YOUR FLEET

Now that you've been introduced to the different types of ELDs on the market, the question becomes, **which do I choose?** Some carriers wonder if more sophisticated bundled ELD systems are worth the investment, or if they are better off going with a solution that simply addresses regulation requirements. In truth, there is no "one size fits all" answer. Each fleet requires a unique solution in order to achieve the largest Return on Investment (ROI).

For example, there is a growing demand for company-owned, personally enabled (COPE) devices. This approach gives drivers mobility, while also allowing corporate control of devices in the key areas of security, safety, cost and support measures.

Another strategy a fleet might consider is "bring your own device" (BYOD), using computer-assisted logs or low-cost telematics. For other fleets that use company assets and drivers, an industrial-grade mobile platform using COPE devices might offer the most return, as it eliminates certain risks associated with the BYOD strategy.

To begin the selection process, mark the statement that best applies to your company:

- I am implementing an ELD system for the **single function of meeting compliance**. I do not want any added features outside of the fundamental requirements.

If you checked the first box, you seek a simple ELD that fulfills all basic requirements. Here are the features you need to look for:

- Integral synchronization with the commercial motor vehicle (CMV) engine
- Recording location information
- Graph grid display
- Device "default" duty status: Driving time will automatically be calculated; once motion is detected the ELD will automatically transition the driver to the Drive line. Once the vehicle stops moving for five minutes, the ELD will alert the driver and transition over to the On Duty line within one minute if the driver doesn't indicate otherwise. All other automatic duty status settings are prohibited.
- Each device must be able to transfer data via a combination of one primary method (web services, Bluetooth, email or print) and two backup methods (USB and scannable QR Code or Transjet Transfer).
- Resistance to tampering
- Identification of sensor failures and edited data: ELD must have the capability to monitor its compliance for detectable malfunctions and data inconsistencies and record these occurrences.

- I seek comprehensive solutions that address a wider scope of issues beyond compliance to help my company meet a **broader range of safety goals**.

If you checked the second option, you will be looking for a more comprehensive FMS that has all the features listed to the left while offering additional benefits. These could include:

- Onboard event recording
- Speed monitoring and alarms
- Engine fault code monitoring
- Detection and monitoring of driver behavior, such as hard braking/acceleration, lane departure and idling
- Automated International Fuel Tax Agreement (IFTA) reporting
- Fuel economy monitoring
- In-cab navigation and minimization of out-of-route miles
- Video capturing systems
- Mobile compatibility
- Robust dashboards, scorecards and analytics reports

Above all, you need to determine your company's goals before selecting the features you want in a FMS. Do you want to reduce fuel costs and out-of-route miles? Or do you need to increase driver safety and morale? What about GPS navigation and mobile access? Clearly, a FMS presents opportunities in many directions. Which is the right direction for your fleet?

IMPLEMENTATION: A TEAM EFFORT

Transitioning your company from manual to electronic logging systems means more than simply changing the hardware and software—the change will affect most aspects of the company, including the culture. For this reason, leadership must establish a clear vision and transparent implementation plan. Whether the plan unfolds all at once or is implemented in stages, it is essential that all involved parties are continually updated and informed on the process.

So who should help you put this plan into action? Your team should consist of the following representatives, who are accountable for the project's success and for reporting progress at scheduled intervals throughout the implementation:



MANAGEMENT REPRESENTATIVE

This person is responsible for the overall success of the implementation program. By confirming management's commitment to the project, this representative fosters support throughout the organization. This executive sponsor and cheerleader understands the company's vision and is typically the vice president of strategic planning, operations, or whoever heads up the safety/compliance effort.



FINANCE REPRESENTATIVE

Fleets implementing a more sophisticated solution to help them achieve greater performance rely on this person to manage and issue analyses of key performance indicators (KPIs), such as scorecards, dashboards and other measurement tools, and comparative progress reports. Determine five or six measurements of success for your operation, and rely on your provider to identify the source of the data to support these KPIs and deliver accurate scorecards.



TECHNOLOGY REPRESENTATIVE

This person is responsible for network connectivity and all third-party applications that support the end-to-end system. Operations rely on this person to ensure the technology performs at a high level day in and day out. For fleets leveraging their solution to gain efficiencies across their operation, it is important to maintain the perspective that operational improvement is driving the use of technology, rather than technology driving operational processes.



MAINTENANCE REPRESENTATIVE

This person is responsible for management of device inventory, installation and service. Be sure to give this person access to performance data from the engine control module (ECM). In turn, this data provides management valuable information to make better fleet management decisions, achieve ROI and ensure compliance.



OPERATIONS REPRESENTATIVE

This person is responsible for planning, dispatch and driver activities; in other words, ensuring day-to-day use of the technology. It is critical that this person buys into the vision since their personnel must live with the results that the implementation ultimately generates. Users must understand that ELDs are not optional; they will be required.

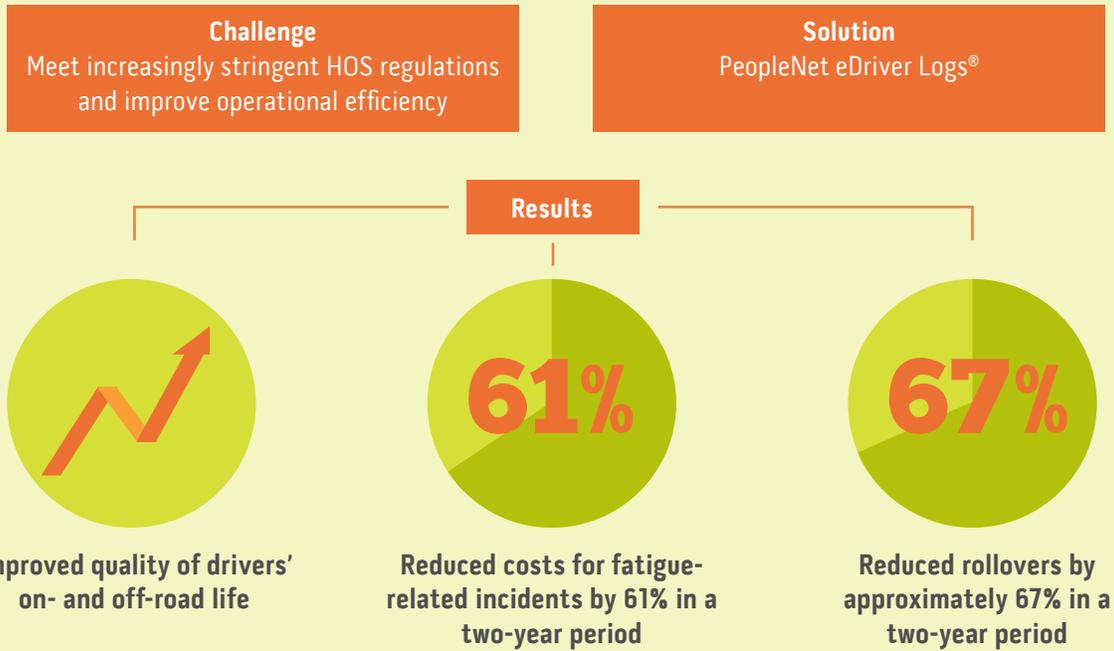


DRIVER MANAGER REPRESENTATIVE

This person is responsible for driver adoption and use by managing training, peer communication and other initiatives that create successful use of the technology from day one. Driver support is key to compliance.

There's one more member of your team who plays a key role in making your implementation a success—your technology provider. This person is the mortar that cements together the various representative bricks to ensure that a solid foundation is being built. You should feel confident that the provider you select will not only meet your expectations, but will deliver results fueled with ROI as a true partner.

AOBRDs in Action: Coastal Pacific Xpress, fleet of 375 trucks



*Based on PeopleNet data

THE BOTTOM LINE

In addition to avoiding the unnecessary expense of HOS-heavy fines—which can be as much as \$2,750—ELDs present cost-saving opportunities in improved safety, reduced fuel consumption and driver satisfaction. At an average cost per year of \$500 per truck, fleets that have implemented AOBRD technology have reaped impressive ROI data that demonstrates its ability to not only strengthen HOS compliance, but also to make operations more efficient. These fleets have reduced overhead, insurance premiums, fuel and other operational costs while improving customer service and driver efficiency—all adding up to a better bottom line.

ABOUT PEOPLNET

PeopleNet provides fleet mobility technology for North America's land transportation industry that enables greater levels of safety, compliance, cost reduction and customer service. The company's fleet mobility system combines network communications, mobility and analytics to create the next-generation standard in technology-driven fleet performance and decision-making management. Its products are used by more than 2,000 truckload, LTL, private, and energy services fleets in the United States and Canada, including several Fortune 500 companies. The company aggressively develops new products that continue to improve fleet management. PeopleNet is a Trimble (NASDAQ: TRMB) Company and part of its international Transportation and Logistics Division. PeopleNet was named as a key factor in Trimble's top ranking by ABI Research's 2015 Commercial Fleet Telematics Competitive Assessment.

For more information about PeopleNet and its products, call (888) 346-3486, or visit www.peoplenetonline.com.