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The Road to ELDs

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North American Transportation Services Association (NATSA) Annual Conference

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Who we are…

- EROAD is a fully integrated transport technology company.
- EROAD uses one advanced technology platform to deliver electronic tax, compliance, HOS, and commercial services to lower client and delivery costs.
- Hardware, architecture and web services have been designed to meet the highest performance, financial and security standards.
- Team are experts in their field, highly qualified, and very experienced in technology and security, SaaS infrastructure, the transport industry, and the public sector.

Our goal today is sharing knowledge…

To be able to answer:

1. What is an ELD?
2. Who needs it?
3. When does it apply?
4. What will it mean for me and my carriers?
5. How to select the best ELD solution partner?

… because knowledge brings success.

"New regulatory requirements are demanding higher levels of accountability. As they do, drivers, carriers and fleet owners must step up efforts to implement safety programs and stay current with new, amended or suspended regulations."

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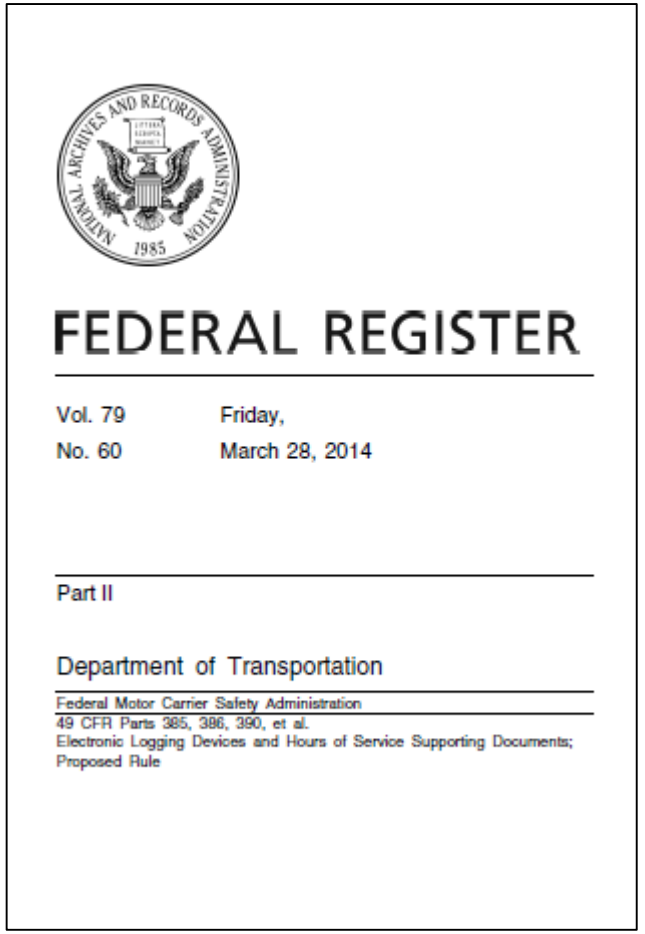
1. What is an ELD?

US Federal rule to mandate use of ELDs

- **March 2014** – FMCSA proposed rule requiring interstate CMV carriers and drivers who are subject to HOS rules to use ELDs to record the change in duty status.

- **End of Sept 2015** – Expect final ruling on ELD mandate.

- **No provider is an ELD provider yet** –
  - Must be registered with the FMCSA registry (which is not currently open); and
  - Must substantiate self-certified application against the ELD functional specifications (which is not yet finalized).



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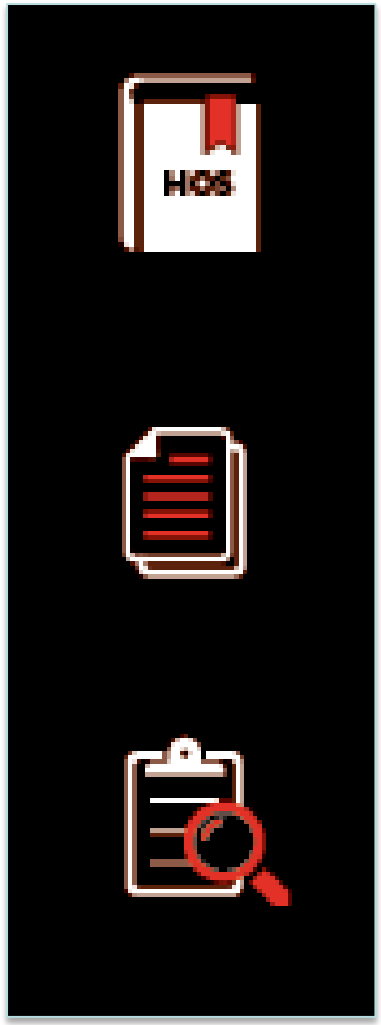
Part II

Department of Transportation

Federal Motor Carrier Safety Administration
49 CFR Parts 385, 386, 390, et al.
Electronic Logging Devices and Hours of Service Supporting Documents; Proposed Rule

Policy rationale for ELDs

- Improve compliance with HOS rules;
- Reduce paperwork burden associated with HOS record keeping; and
- Improve the quality of logbook data and reduce HOS record falsification.



Definition of an ELD

§395.2 - "Electronic Logging Device (ELD) means a device or technology that automatically records a driver's driving time and facilitates the accurate recording of the driver's hours of service, and that meets the requirements of subpart B of this part."

Key requirements:

- Not necessarily a physical device but a technology platform
- Integrally connected to the CMV's engine to track vehicle movement and operation
- Date, time and location automatically captured
- Tamper resistant
- Allow for annotation by both driver and carrier to explain or correct records

Comparing the technical specifications

Features / Functions	Electronic Logging Device (ELD) SNPRM issued March 28, 2014	Automatic On-board Recording Device (AOBRD) §395.15 1988	Electronic Logging System (ELS) FMCSA guidance issued July 10,2014
Engine connection – "integral synchronization"	• Engine power and hours, motion, miles driven • ECM or other electronic device connected to CMV	• Required but not defined	• Not required
Recording location	• At change of duty status • Engine on and off • Every 60 min while moving unless Personal or Yard Use	• At change of duty status • Manual or automatic	• At change of duty status • Manual or automatic
Automatic Driving status	• Default to Driving when CMV in motion	• Not addressed	• Not required
Graph grid display	• Must be able to present graph grid on unit or print	• Not required • Time and duty change sequence sufficient	• Must be able to present graph grid on unit or print
Timezone and drift	• Sync to UTC • Absolute deviation no more than 10 min	• Not addressed	• Not addressed

Comparing the technical specifications

Features / Functions	Electronic Logging Device (ELD)	Automatic On-board Recording Device (AOBRD)	Electronic Logging System (ELS)
Annotations and edits	• Driver must accept all edits proposed by carrier	• Not addressed • Driver or carrier edits	• Not addressed • Driver or carrier edits
Tamper resistant	• No alteration of original ELD records • Require data integrity check functions • Require record versioning	• Must be tamper-proof	• Not addressed
Identifying sensor failures	• Capable of detecting malfunctions and data inconsistencies and gaps • Audit record of these occurrences	• Must identify sensor failures and edited data	• Not addressed
Data transfer methods	• Primary – wireless webservices, Bluetooth or email • Backup – USB, QR or TransferJet	• Not addressed • Outlined print out format	• Display • Print version to be available upon request

"Selling to people who actually want to hear from you is more effective than interrupting strangers who don't." – Seth Goddin

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2. Who needs an ELD?

All drivers keeping paper logbooks must transition to ELDs

Proposed exceptions:

- Drivers currently allowed to use timecards could continue to do so under § 395.1(e)
- Drivers that are intermittently required to record HOS duty status (because they go outside of the specified short haul criteria), but for no more than 8 days in any 30 day period

"Great things are not done by impulse, but by a series of small things brought together."
– Vincent Van Gogh, Artist

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3. When does it apply?

Key dates

TIMELINE

March 28, 2014 : Proposed rule for ELD mandate published by FMCSA

~Sept 30, 2015 : Final rule for ELD mandate expected to be published by FMCSA

+30 days, 2015 : "Effective Date" – ELD providers with compliant product can register with FMCSA

~ 2017 : "Compliance Date" – ELD becomes mandatory

~ 2019 : End of old technology 'grandfathering' - All drivers and motor carriers must abandon AOBRs and use ELD

"The changes are reducing record keeping and streamlining processes for drivers and carriers. However, the challenge remains in tackling driver violations and getting to the root of the most common causes."

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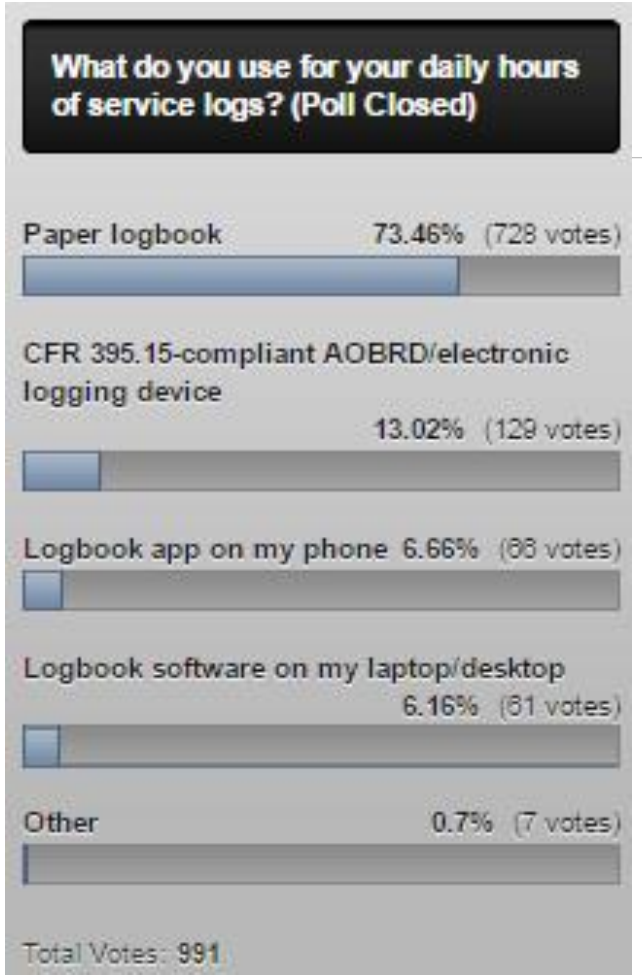
4. What will it mean for me and my carriers?



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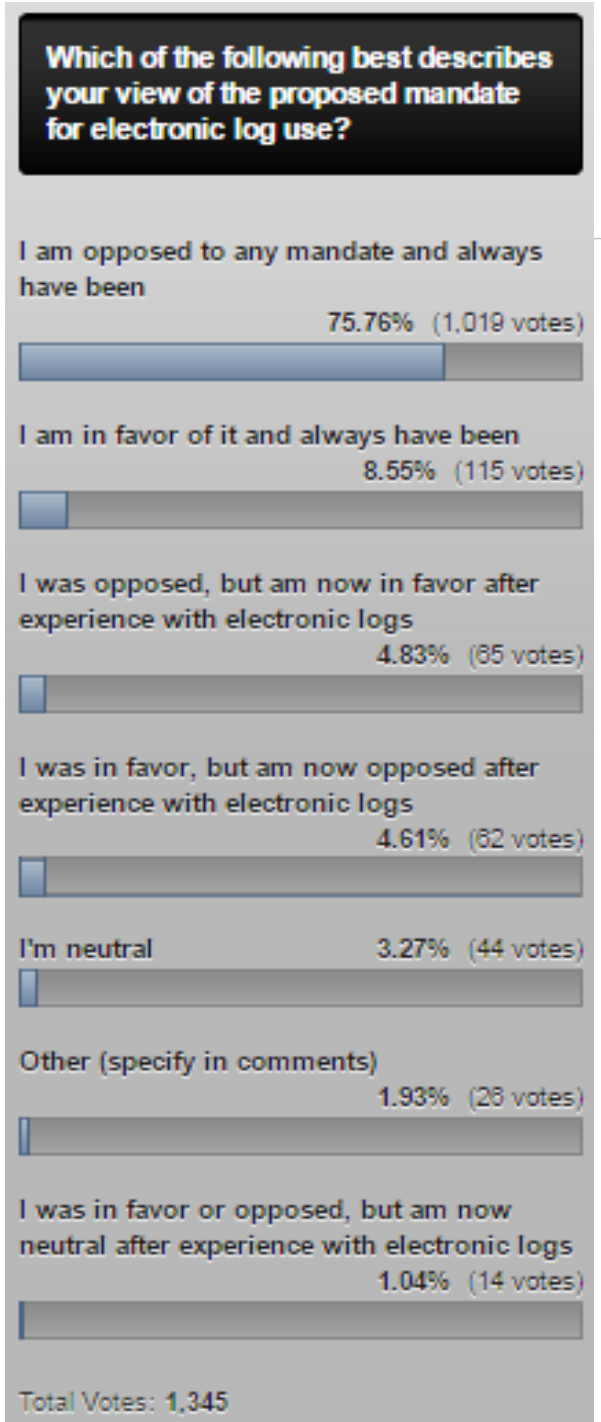
- Still a large majority using paper logbooks
- All need to transition to ELD by 2017

Source: http://www.overdriveonline.com/poll-what-do-you-use-for-your-logs-paper-or-e-logbook/ , July 6, 2015



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- Lots of discussion in the industry about upcoming ELD final ruling
- Mixed experiences with electronic solutions

Source: http://www.overdriveonline.com/poll-where-do-you-stand-on-the-proposed-e-log-mandate/ , July 13, 2015

2014 Top 10 Driver Violations

1. Log violation
2. Non-English speaking driver
3. Driving beyond 8 hour limit
4. Drivers record of duty status not current
5. Speeding 6-10 miles over state/local limits
6. Failing to use a seat belt
7. Driving beyond 14 hour on duty period
8. Operating a property-carrying vehicle without a valid medical certificate
9. Failure to obey traffic control device
10. False report of drivers record of duty status

- Five of the top 10 driver violations in 2014 involved HOS and logbook record keeping
- Electronic solutions, if well implemented, can help with most or all of these violations

Source: Transportation Regulatory Update, July 2015

Carriers have varying perspectives about ELDs

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"I want to be ahead of the curve"

- Eager to demonstrate compliance. Although may or may not be ready given operational practices.
- Need comfort that there will be a compliant ELD delivered before the take effect date – 2017.

"Successful adoption of ELD requires effective change management"

- Transitioning from paper to an automated and electronic solution is a 'big bang' implementation that exposes:
  - Carriers need to fundamentally change operations – i.e. not assigning loads when drivers reaching limits
  - Drivers need to fundamentally change behaviour – i.e. recording in real time and automatically
- Prefer incremental steps to: first, modernize the paper process with flexibility to edit mistakes (ELS), and then, automate the recording as required by ELD.

"Want the 'Best' not necessarily the 'First'"

- Given the significant effort required to implement a solution, keen to make sure it is the best and right solution.
- Willing to wait, pilot and evaluate different solutions before investing in an ELD to implement.

Carriers are seeking guidance

- Simple and intuitive solution for drivers
- Support to successfully implement change management
- Assurance that solution will satisfy the regulatory requirements
- Accurate and reliable records that can withstand scrutiny of compliance audits
- Cost effective solution that provides multiple applications on one platform

"Because the people who are crazy enough to think they can change the world, are the ones who do." – Steve Jobs

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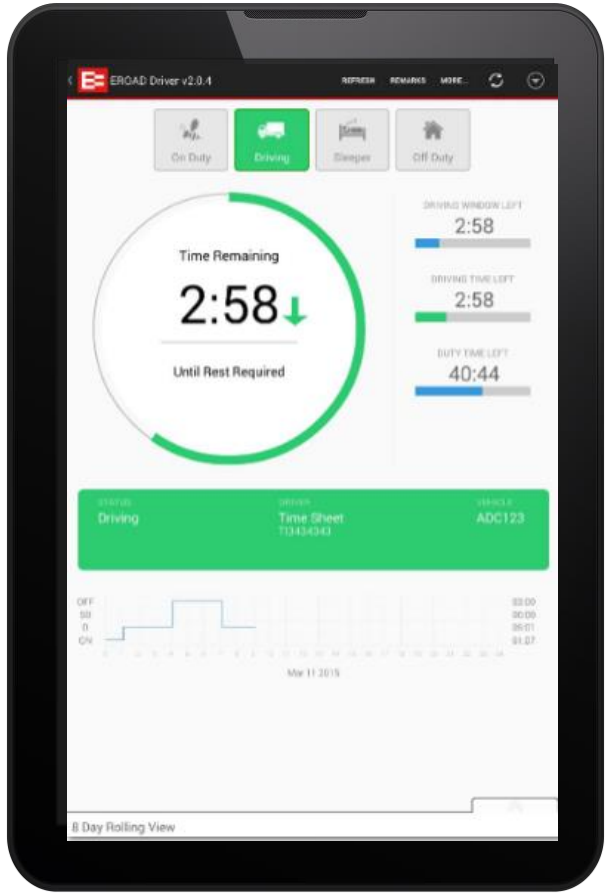
5. How to select the best ELD solution partner…

Simpler the better

Driver acceptance is crucial to successfully transition and manage the change from paper to electronic HOS compliance.

Drivers are willing to accept ELD solutions that are:

- Intuitive and simple to navigate
- Reliable
- Able to assist drivers with compliance



Tailored to suit the business

Technology must be adaptable and capable of supporting different types of business operations.

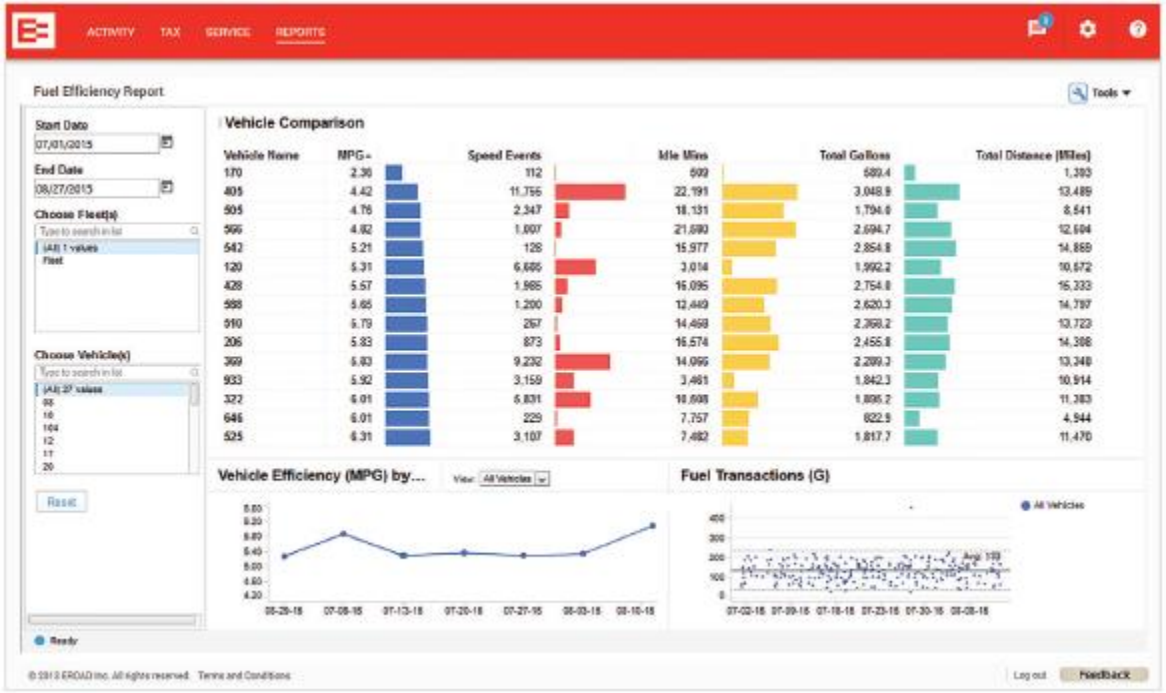
Can the ELD support:

- Owner operators?
- Leased trucks in the fleet for peak seasons?
- Team driving?
- Multiple terminals?
- Outsourcing back office administration?
- Personal and yard use?

Accurate, reliable and secure data

Safeguard and mitigate exposure to inadequate record keeping and accidental non-compliance by selecting a technology solution that:

- has rapid GPS ping rate and accurate processing
- offers performance, redundancy and security against unauthorized access (both physical and logical)
- supports retention of data and records for required minimum duration
- satisfies internal and external control objectives to satisfy an audit by automatically detecting and alerting of omissions and errors in data and records.

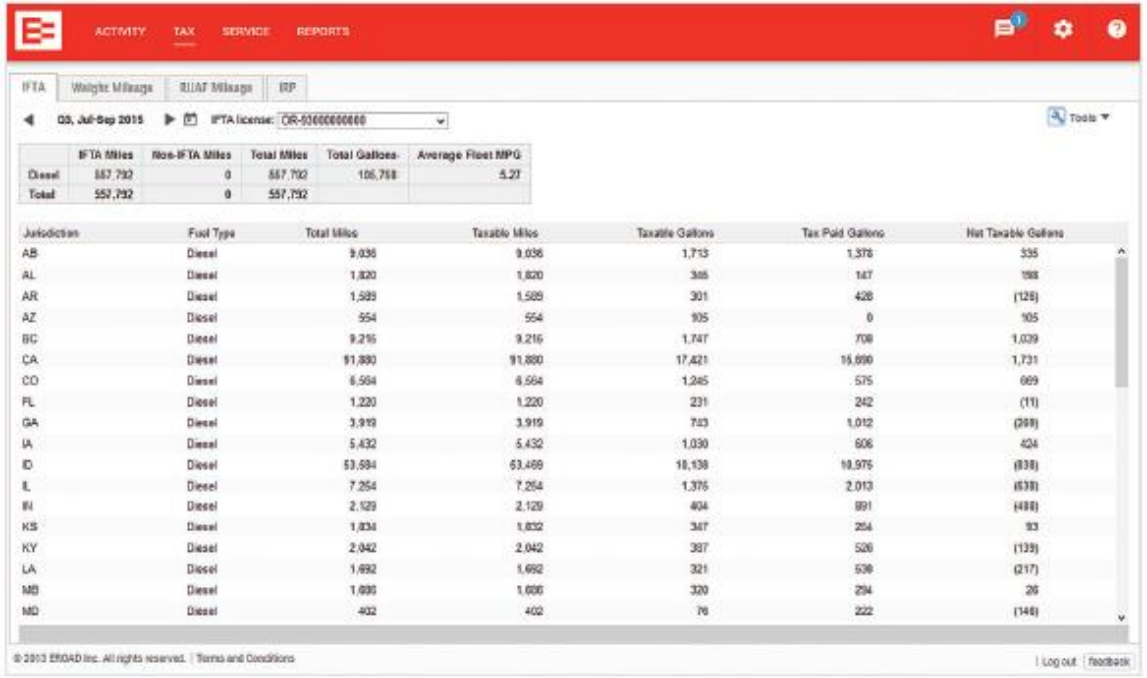


Strong core platform; multiple applications

Cost effective and high ROI solution platforms:

- are highly scalable and agile
- modularized by application
- leverage higher security standards.

EROAD uses one advanced technology platform to deliver electronic tax, compliance and commercial services.



Questions?

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THANK YOU

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