Considerations in the Selection of an ELD Solution Partner



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A: INTRODUCTION -THE US FEDERAL ELD MANDATE

WHAT IS AN ELD?

An electronic logging device (ELD) is electronic hardware and software module used to record the working hours of a commercial motor vehicle (CMV). ELDs replace paper logs and other legacy electronic recorders that are unable to store data in a standardized format required by government transportation agencies and law enforcement officials. ELDs are commonly used to track allowed hours of service (HOS), record the use of CMVs, and prevent unauthorized vehicle access. Carriers use ELD to demonstrate their compliance with HOS legislation and reduce accidents caused by driver fatigue.

THE LAW

On October 30th, 2015, the Federal Motor Carrier Safety Authority (FMCSA), an agency of the US Department of Transportation (DOT), published its final decision, amending its prior regulations and establishing new requirements for the adoption and use of ELDs. This ELD mandate covers the following requirements and is designed to improve compliance regulated by a set of rules known as hours of service (HOS):

- The minimum performance and design standards for HOS ELDs
- The mandatory use of ELDs by drivers currently required to prepare HOS records of duty status (RODS)
- The established use of the HOS supporting documents carriers are required to maintain
- The measures to address concerns about harassment resulting from the mandatory use of ELDs

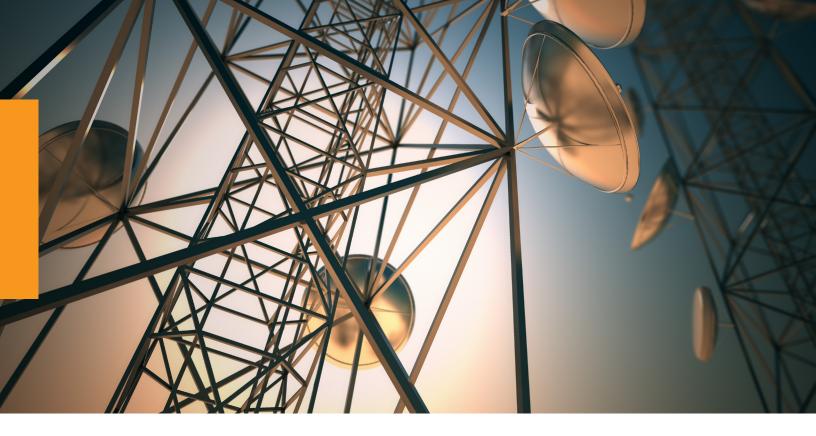
The Final Rule of the ELD mandate would be implemented in several phases with a compliance date of December 18, 2017. This means that carriers have until December 2017 to implement certified ELD solution and start recording their HOS data. Carriers already equipped with ELDs will have until December 2019 to ensure compliance with published specifications.

> ELDs are commonly used to track allowed hours of service (HOS), record the use of CMVs, and prevent unauthorized vehicle access

THE GOALS OF THE FMCSA AND WHO IS IMPACTED

The FMCSA states that: "[These rules are]... intended to help create a safer work environment for drivers, and make it easier and faster to accurately track, manage, and share records of duty status (RODS) data. An ELD synchronizes with a vehicle engine to automatically record driving time, for easier, more accurate hours of service (HOS) recording." The ELD legislation also defined the RODS standard which provided enforcement personnel with a consistent format to review ELD record data. All commercial motor vehicle (CMV) carriers operating across state lines will be impacted and those currently required by law to log HOS or maintain 8 or more days of duty status logs out of 30, will require an approved ELD solution.





FMCSA'S 3-PHASED ELD IMPLEMENTATION TIMELINE

The ELD rule is being implemented in three phases.

Phase 1: Awareness and Transition February 16, 2017 > December 18, 2017

The first phase stretches over a period from an effective date of February 16, 2017 to the compliance date of December 18, 2017. During this time, carriers do not have to necessarily start using ELDs, but are given time to become familiar with the ELD mandated rules and plan for the transition to ELD compliance. During this phase, carriers are allowed to use the following methods of record duty status: Paper logs, AOBRDS, FMCSA certified ELD and other FMCSA approved logging software.

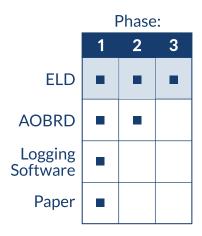
Phase 2: Phased-In Compliance December 18, 2017 > December 16, 2019

The second phase covers a two-year period commencing on December 18, 2017. During this time, carriers are required to completely transition away from logging software and paper based records. During this phase, carriers are required to use the following methods of record duty status: AOBRDS install prior to December 18, 2017 and FMCSA registered and certified ELDs based on December 16, 2015 rules

Phase 3: Full Compliance

December 16, 2019 > December 16, 2021

The final phase covers a two-year period commencing on December 16, 2019. After this date, all carriers must have implementing and be using FMCSA compliant, certified and registered ELDs



KORE



MAKING SENSE OF IT ALL

The FMCSA is the entity responsible for defining, publishing and enforcing the US Federal ELD mandate, but what does this really mean for commercial fleet operators, bus operators, their drivers and other stakeholders across the supplychain? How do these rules improve safety? How do companies transform their operations, valuechains and stakeholder relationships to align with a new-normal in commercial fleet and driver data logging? What technologies are on the market to help companies implement systems, methodologies and practices that meet FMCSA rules? And how do carriers properly implement these solutions so that they are cost-effective and minimally disruptive?

Although the FMCSA mandate is clear and unavoidable, some carriers have realized that their CAPEX and OPEX ELD investments have actually put them well ahead of the technology curve and at a significant competitive advantage in the long term. A well planned and executed ELD initiative has the potential of significantly improving productivity, lowering TCO, mitigating liability risk, and enabling carriers to uncover deep insight into the function and performance of their people, assets, and processes.

B: BACKGROUND -HOW THE IOT HAS ENABLED THE EVOLUTION OF HOS COMPLIANCE

THE EVOLUTION, FROM PAPER TO ELD

In its simplest form, an ELD is a data logging, telemetry, and presentation device that communicates with a CMV's engine in order to electronically record driver RODS and satisfy compliance of FMCSA mandated Hours of Service (HOS) requirements. In attempt to improve the accuracy and availability of HOS data, ELDs have evolved to replace ineffective paper logs, electronic on-board recorders (EOBR) and other automatic on-board recording devices (AOBRD). In their day, EOBR devices represented a huge improvement over paper logs, however, in practice these devices suffered from a lack of a consistency; EOBR's did not have an officially or widely accepted data format, which meant that their logs had to first be converted to legacy "paper-log" format before law enforcement personnel were able to review them. ELDs came about to replace these legacy data collection methods currently and provide a consistent and reliable means of tracking HOS data. It was also important that ELD not be physically or operationally tampered with. This has led to increasing use of vehicle embedded systems or encrypted wireless connections over OBDII



and other dongle ELD interfaces. Integrating ELD hardware directly with a vehicle's engine control unit/module (ECU/M) ensures seamless interoperability and prevents any attempt to deliberately circumvent or compromise the normal functioning of the device.

In its most basic form, an ELD is responsible for automatically monitoring a vehicle's engine and gathering event-based data including engine run time, vehicle movement, miles driven, and other basic HOS metrics. However, as carriers continue to implement or upgrade their fleets with ELD hardware, and as the industry adoption of telemetry technology approaches critical-mass, the market is beginning to coalesce around a convergence of ELD and telematics. Telematics (or "vehicle telematics") has the capability of offering carriers, the DOT, and other government enforcement agencies, ubiquitous access to a far richer collection of metrics that basic ELD technologies are able to provide at this time.

> Telematics facilitates the passage of data from the IoT-edge to the Cloud.

ENTER... TELEMATICS

Telematics facilitates the passage of data from the IoT-edge to the Cloud. This is fundamental to building connected-vehicle solutions that unlock value and bring insights to light. Telematics is a set of interdisciplinary enablement technologies that are providing the transportation industry with the tools, methodologies, and systems to transform commercial shipping and fleet operations into engaging and interactive connected-vehicle user-experiences (UX). In a broader context, it functions as a collection of foundational enablement technologies that facilitate the seamless exchange of information, vital to creating services, applications, and ecosystems for use by transportation regulatory agencies and the larger connected-vehicle industry.

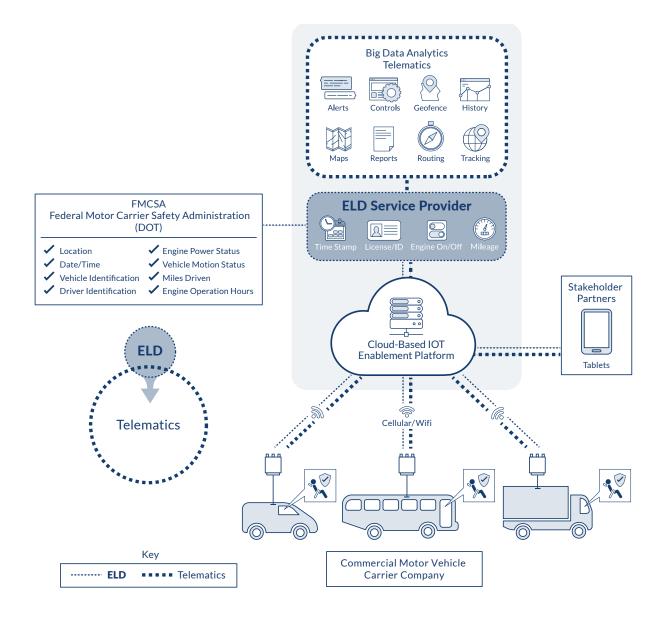
The emergence of integrated telematics enablement platforms has enabled vehicle manufacturers to create purposeful ecosystems that leverage the innate synergies that exist between private and public sector stakeholders^{*}, both within and outside the distribution and transportation sector. This has resulted in the formation of sustainable valueadded service-stacks geared to the unique and fluid requirements of product manufacturers, fleet operators, transit authorities, regulatory agencies, and others. It is the collective synergy that a unified telematics-powered ELD ecosystem is able to unlock, that is pivotal to driving profitability, safety and broad regulatory compliance.

* Auto OEMs, vehicle dealerships, maintenance and repair service providers, fleet operators, shippers, drivers and government agencies, make up some of the many stakeholders in the connected-vehicle space.

THE FUTURE OF ELDS IN THE SERVICE ECONOMY

The automotive market is transforming to an economy-of-services, subscriber-based revenue models, and positive ownership experiences. Widespread adoption of big-data analytics, predictive AI, supply-chain systems, and backoffice business processes (such as CRM, ERP and SCM) leads to better decision making, improved safety, and higher profitability. This enables carriers to build solutions that leverage rich streams of telematics data that satisfy FMCSA ELD HOS requirements, but also offer deep insight into their logistics planning and asset tracking operations. Even more compelling is the potential to leverage these technologies as a conduit to emerging market opportunities. Usage-based insurance (UBI) programs, preventative maintenance analytics, contextual driver behavior monitoring and enhancing customer interaction with more touchpoints, represent some of the many compelling benefits of an integrated telematics solutions.

This development is referred to as the digital transformation of products in the servitization economy. The current list of Fortune 500 global companies is made up of more service firms and fewer manufacturers than in previous decades, and the products that are being produced have, on average, a higher service component than ever before. This is setting a high bar for performance, perceived-value, and usage, and companies who deliver on those expectations are significantly more likely to edge-out their competition and grow their customer-bases. The connected-vehicle market epitomizes this trend. McKinsey estimates that by 2030, up to US\$750M will be generated in new, high-margin revenues from connected-vehicle services, and US\$1.4B in shared mobility services.





C: MARKET DRIVERS, CHALLENGES AND OPPORTUNITIES

FACTORS COMPELLING DOT ACTION IN HOS REFORM

Driver fatigue remains a key factor in vehicle accidents across the board. The list of safety improvements, compiled each year by the National Transportation Safety Board (NTSB), cited "...reducing fatigue-related accidents" as the top concern in 2016 and identifies fatigue as a contributing factor accounting for as much as 20% in NTSB-investigated accidents. For CMV fleets, fatigue is an even larger issue. According to the Motor Carrier Safety Associates and the North American Fatigue Management Program (NAFMP), fatigue is a factor in 13% of heavy vehicle crashes and a principle cause in 31% of crashes that result in fatality. The costs to human life is has resulted in accidents and deaths that, with an effective ELD solution in place, could have easily been avoided. In 2012 alone, driver fatigue was responsible for 178 commercial vehicle driver deaths.(3) Fatigue-related crashes come with a high price tag and a top concern for carriers, the DOT and all who use public roads.

The ELD rules also ensure accordance to lawful labor practices by mandating the maximum number of driving hours (over a given period) and mitigate potential for worker harassment on the part of carriers. Ironically, these protections (now automatically enforced and verified via ELD) have the effect of helping carriers fully conform to DOT and labor regulations, thereby improving employee morale and lowering liability risk over the long term. For commercial drivers, ELD provisions offer obvious benefits and protections including (7):

- Prohibiting carriers from harassing drivers
- A process for drivers to file written complaints
- Access to the Department of Labor's whistleblower program (8)
- An mute function to ensure drivers are not interrupted in the sleeper berth
- Anti-tampering, limited records editing, required driver certification and preservation of original records

The FMCSA takes harassment and the broader problem of coercion very seriously. Carriers (and other including shippers, receivers, and transportation broker intermediaries) who are found to have harassed their drivers are subject to civil penalties for harassment and additional HOS violations. The FMCSA states that:

"Action by a motor carrier toward a driver (whether an employee or a contractor) that the carrier knew or should have known would result in an HOS violation in 49 CFR 395 or 49 CFR 392.3. Harassment only applies if the carrier's action involved information from an ELD, or other technology used in combination with an ELD." (7)



D: BENEFITS OF IOT-ENABLED HOS SYSTEMS

FRONT-LOADED COSTS VS LONG-TERM BENEFITS

A leading concern of the fleet industry is the cost to implement, manage, and support an ELD solution. Given this, the FMCSA is allowing select tablets, handhelds, and smartphones, which satisfy FMCSA requirements (that stipulate that HOS data collections must be fully automated via hardwired device-to-engine connection) to be used in place of higher cost vehicle-embedded ELD solutions. Telematics service providers (TSP) and other leading-edge technology companies are quickly responding to this development by partnering with leading tablet manufacturers to offer innovative hardware solutions that offer end-to-end IoT functionality. These partnerships enable TSPs to offer a wide range of competitive subscriptionbased services that enable carrier to shift their front-loaded CAPEX ELD investments to OPEX and still retain compelling long-term benefits of increased profitability, competitive advantage and market share.

BENEFITS OF ELD

Improving Safety and Lowering Risk to Life and Property

Widespread adoption of ELDs represent a foundational transformation from re-active HOS and driver compliance monitoring to a collection of purpose-built technologies, methodologies, and practices that enable fleet operators, shippers and government agencies to proactively track transportation related activities. The implications of these developments in reducing fatigue-related crashes are significant and profound. ELDs help reduce the temptation of driving while fatigued by incentivizing good driving behaviors. Nonconformance to ELD rules subjects drivers to run the risk of being ticketed and censured by their companies for violating FMCSA regulations. ELD technologies are already starting to show promise. In a 2014 report titled "Evaluating the Potential Safety Benefits of Electronic Hours of Service Recorders," the FMCSA cited a 31% reduction in fatigue-related crashes; 38% lower in preventable crashes; and a 45% reduction in total crashes for CMVs equipped with ELDs compared to those without EOBR solutions installed. FMCSA estimates that ELDs will help prevent almost 2,000 CMV crashes each year.(2)

> Before ELD came on the scene, carriers incurred costs that were largely, unavoidable

Lowering Total Cost of Ownership (TCO)

Before ELD came on the scene, carriers incurred costs that were largely, unavoidable. Tractor trailer collisions cost companies an average of US\$350,000 each year in avoidable penalties, fines, property damage costs and litigation expenses. Circumventing fines alone, has the potential of saving carriers thousands of dollars per year. Improper log reporting or falsification can result in fines of up to US\$10,000 per incident and HOS violation can add up to US\$2,750 per driver and US\$11,000 per violation.(5)

With that said, when factoring in opportunitycosts of lower productivity, unplanned downtime, and ancillary expenses, including higher insurance premiums and workers' compensation expenses, the total cost of ownership (TCO) becomes burdensome and unsustainable. Between 1998 and 2000, CMV crash injuries cost employers almost US\$60 billion annually, of which US\$7.7 billion was spent by employers on medical cost of crash and US\$8.6 billion on sick leave, life and disability insurance for crash victims.(9) On a per carrier basis, an average costs of these crashes total US\$16,500 for a non-injury crash, US\$73,750 for a non-fatal injury crash, and US\$504,408 for a fatal crash.

The potential savings are equally impactful. The FMCSA states that, as a result of new HOS regulations, savings to the US economy will be extensive. The agency goes on to say that "These fatigue-fighting rules for truck drivers were carefully crafted based on years of scientific research and unprecedented stakeholder outreach. The result is a fair and balanced approach that will result in an estimated \$280 million in savings from fewer large truck crashes and \$470 million in savings from improved driver health. Most importantly, it will save lives."(10)

Time Savings

An ELD solution has the potential of providing carriers significant time and efficiency savings in as little as 6 months after implementation. Automatically generated HOS logs and ELD reports require little, if any, user interaction, enabling drivers to focus on safely transporting cargo to its final destination, and managers to focus on improving operational efficiencies, logistics, and productivity.

THE VALUE OF TELEMATICS IN ELD USE-CASES

Telematics-enabled ELDs offer significantly enhanced functionality that unlocks real-time situational-awareness, improves driving habits, and provides a path to proactive usage-based-insurance (UBI) programs that help carriers to reduce risk resulting in fewer fatalities, injuries, and property loss. This has an effect of dramatically lowering a carrier's risk profiles which in turn puts downward pressure on insurance premium costs. Fleet operators can also use ELDs to dynamically optimize routes, fuel usage and equipment allocations.

Customer Centricity	Fleet visibility improves the ETA of perishable goods which makes for happy customers
UBI Programs	Telematics offers a collection of enablement technologies that dove-tail with emerging UBI programs
Revenue	Telematics data offers the means to easily collect metrics and uncover emerging monetization opportunities
Regulatory Compliance	The availability of detailed telematics data help streamline regulatory and certification roadmaps
Fleet Visibility	Dispatchers have up to the minute information on driver status resulting in better planning
Proactive Operations	Logs enable fleets to collect vehicle metrics that feed predictive maintenance analytics
Driving Behaviors	LTE standard supporting 300Mbps download/75Mbps upload.



E: SELECTING AN ELD/HOS SOLUTIONS PROVIDER

TYPES ELD SOLUTIONS AND ELD PROVIDERS

The connected-CMV market is transforming to an economy-of-services, subscriber revenue models, and positive ownership experiences. Widespread adoption of big-data analytics, predictive AI, and back-office business processes leads to better decision making, improved safety, and higher profitability. This enables companies to offer solutions that are customer-focused, value-added and may be monetized over the long-term. At the center of this digital transformation, IoT edgedevices, connectivity services, and cloud analytics are making possible the flow of rich data streams between remote devices and purposeful cloud applications. It is hard to overstate the significance of telematics and impact on ELDs. Integrated on-board computing, telecom and infotainment technologies are finding their way into traditional HOS and RODS use-cases.

However, it must also be noted that hurdles still exist for many carriers seeking to bridge this digitaldivide. Some of these challenges represent internal business or organizational constraints such as labor allocation or costs; others represent intrinsic business-culture barriers:

- Aligning internal processes and output with ELD regulatory mandates
- Harmonizing core competencies with shifting market demands
- Harmonizing offerings with the emerging technology landscape
- Uncovering, developing and monetizing emerging markets
- Transforming driving into an interactive connected-vehicle user-experience

These challenges combined with a rapidly evolving technology sector and a shifting regulatory landscape, have resulted in a plethora of ELD hardware and cloud solutions. By and large, these solutions fall into two camps:

- A. Hardware-centric ELD solutions comprised of vehicle embedded telemetry devices, and ruggedized hardwired tablets; and,
- B. Holistic telematics-enhanced ELD solutions that combine purposeful IoT hardware, connectivity, and cloud analytics services

Hardware-centric ELD solutions

ELD hardware subscriber packages are abound in the market with each offering a unique set of promises delivered over a propriety mix of hardware and cloud services. Although competitively priced, many of these ELD solutions represent mix-match hardware, connectivity, and cloud services sourced from multiple companies, patched together to satisfy the functionality and features required by FMCSA rules. In practice, these solutions are simply not sustainable or agile enough to scale to the evolving needs of most

"Costs being equal: Why would carriers adopt canned ELD solution when they could take advantage of the scalability, extensibility and functionality an enterprise-grade telematics-enhanced ELD ecosystem is natively able to provide?" carrier operations. The result is a collection of stove-pipe services, hard-wired logic, and isolated business-rules. These implementations rarely yield more than one mainstream ELD solutionset or are able to effectively leverage required abstracted-connectivity, seamless IoT-deviceto-cloud interoperability, or other leading-edge open-source development methodologies. Equally troubling is that most of these solutions are not backed by enterprise-grade 24/7 support staff, trainers, business SMEs, or a professional services team. These support services (along with the methodologies, tools, and knowhow) are essential for any successful enterprise-grade implementation, especially during integration with a carrier's heterogeneous domain of fleet assets, workflows, and back-office systems.

Telematics-enhanced ELD solutions

Telematics-enhanced ELD solutions, represent a convergence of use-cases that share compatible technologies and a mutual set of objectives. Purpose-built ELD solutions are now materializing that leverage and interact with a larger ecosystem congruent telematics use -cases, connectivity services and cloud applications. The implications of this holistic model are profound and begs the question:

"Costs being equal: Why would carriers adopt canned ELD solution when they could take advantage of the scalability, extensibility and functionality an enterprisegrade telematics-enhanced ELD ecosystem is natively able to provide?"

Telematics service providers (TSP) are uniquely positioned to offer ELD solutions that work outof-the-box with any vehicle and are delivered with an abundance of standard services including: device-to-cloud security, proven cellular/satellite carrier connectivity, global support coverage and purposeful software-as-a-service (SaaS) cloud hosting options. By offering single-source solutions at each tough-point of a carrier's value-chain of edge-devices, connectivity gateways and cloud applications, TSPs are able to provide ELD certified hardware and services that are interoperable, trackable, and easy to deploy, provision and manage.

RISK AND PITFALLS IN SELECTING AN ELD SOLUTION PROVIDER

The selection of an ELD solution represents one of the most important and impactful decision a carrier will make. Given the proliferation of ELD hardware providers in the market -- each promising to offer a unique solution -- carriers are having a hard time separating facts from promises. Compounding the challenge is an increasingly complex technology landscape of hardware, connectivity and cloud solutions that adopt confusing techno-speak that do not address the transportation requirements using industry language, business metrics and benefits, carriers understand and easily relate to.

The importance of this selection process cannot be overstated. Ineffective, non-certified, or poorly implemented ELD solutions are costly, introduce the potential of sanctions from regulatory agencies, and put carriers at significant increased risk of lower profitability, market share, and competitive advantage. As ELD compliance is a federally mandated requirement that must satisfy stringent FMCSA rules, the costs and associated risks of implementing the wrong ELD solution may mean double trouble for carriers, as replacing an ineffective ELD solution, represents, at minimum, two-fold commitment. Longer term, the risks to carriers are further compounded by the fact that unproven ELD solutions rely on weak connectivity services and hastily assembled SaaS platforms. These fly-by-night ELD solutions do not provide the functional extensibility, agility or seamless access to a family of enterprise-grade IoT/telematics services to ensure carriers are positioned with sustainable future-proof ELD solutions.

THE BENEFITS OF CHOOSING QUALIFIED ELD SOLUTIONS PARTNER

The value-proposition that an enterprise-grade ELD solutions partner is able to offer includes a number of far reaching benefits. The top 3 concerns of business, especially those operating federally mandated requirements, are: growth, costs, and certainty (market stability). Qualified ELD solutions providers understand that any successful ELD solution is predicated on their partner relationship with their carrier customers. This relationship forms the basis of the value-proposition and is the foundation from which carriers are able to leverage long-term features and benefits. By drawing from a rich pool of people, technology and industry resources, ELD solution partners are able to provide carriers a compelling value-added offering of purpose-built industry-centric services, that eclipses the offerings of dedicated ELD hardware providers. These include:

Lower TCO	Economies of scale and proactive operations enable carriers to realize lower CAPEX and OPEX
Zero-Implementation	Dedicated integration teams, seamless interoperability reduce the implementation footprint
Interoperability	Seamless integration with back-office ERP, HR, accounting, logistics planning and supply-chain systems
Positioning	Real-time location-aware GPS solutions that provide situational-awareness and safeguard assets
Connectivity	Pervasive connectivity offers global coverage via tier 1 cellular, satellite and emerging LPWAN providers
Certification	Access to fully tested family of purpose-built ELD certified hardware, connectivity and cloud services
Knowledge	Deep technology and industry experience translates to professional training and consulting services
Support	Dedicated 24/7 post-implementation support staff are comprised of experience engineers and industry SMEs
Regulations	Access to rapid certification and regulatory road-mapping, testing and development resources
Security	AAA security policies delivered via Mobile Device Management (MDM) solutions



THE KORE DIFFERENCE

KORE'S MANAGED TABLET CMV FLEET AND ELD SOLUTIONS

KORE Managed Tablet solutions are engineered from the ground up to solve the evolving needs of fleet companies and other CMV operators. ELD represents one of many important challenges facing the transportation and distribution sector, and KORE is well ahead of the curve to help these companies face their operational, regulatory, and business challenges head-on. KORE's holistic approach to distributed asset management is founded on the idea that technology is not part of end-game in the equation, but the catalyst that enables its customer to achieve their goals. The concept of enablement foundational to KORE's value-proposition and a key component of its IoT Enablement Platform of purpose-built global connectivity, distributed asset management, and GPS tracking solutions.

KORE Managed Tablet Solutions include all the hardware, connectivity, cloud services, and support required to cost-effectively manage driver, fleet operations, and logistics. KORE provides everything carriers need to easily and accurately record HOS their ELD mandated logs, and have formed partnerships with leading ELD application providers that can be pre-loaded for smooth implementation. Tablets equipped CMVs enable drivers to view ELD data directly on their tablets and present this information to law enforcement and transportation officials, when required.

The Right Device pre-configured for You

A tablet user-experience (UX) that offers mobile teams unparalleled convenience, security and productivity. KORE offers a broad portfolio of standard and ruggedized tablet devices, perfectly suited for any fleet management use-case.



Ubiquitous Global Connectivity

Partnerships with AT&T, Verizon, T-Mobile, Sprint and other global tier 1 carriers offer anywhere Wi-Fi + cellular coverage. Custom connectivity configurations help streamlines workflows and lift the burden from carriers on of having to manage their telematics data communications.

24/7 Upgrades and Support

Robust device management, dedicated support, break-fix services and critical updates delivered OTA help carriers future-proof their ELD investments. KORE ensures devices and apps are updated and secure and its support teams are available to quickly troubleshoot and fix issues, resulting in safer operations and less. Choosing a KORE ELD Managed Tablet solution enables carriers to tap into KORE's industry experience, global business presence and the ubiquitous connectivity they need to remain safe, compliant and profitable.



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- 10. U.S. DEPARTMENT OF TRANSPORTATION. Federal Motor Carrier Safety Administration FMCSA Administrator Anne S. Ferro https://www.fmcsa.dot.gov/newsroom/new-hours-service-safety-regulations-reduce-truck-driver-fatigue-begin-today
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- 12. ELD accurately record a vehicle's GPS location, status (ignition/power, motion), usage (mileage, engine hours, malfunctions, unauthorized access/tampering) and driving activity telematics data by sampling Hours of Service (HOS) data logs thought a given period and generating snapshots of activity.
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