ELD BUYERS' GUIDE

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Electronic Logs

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Duty Status

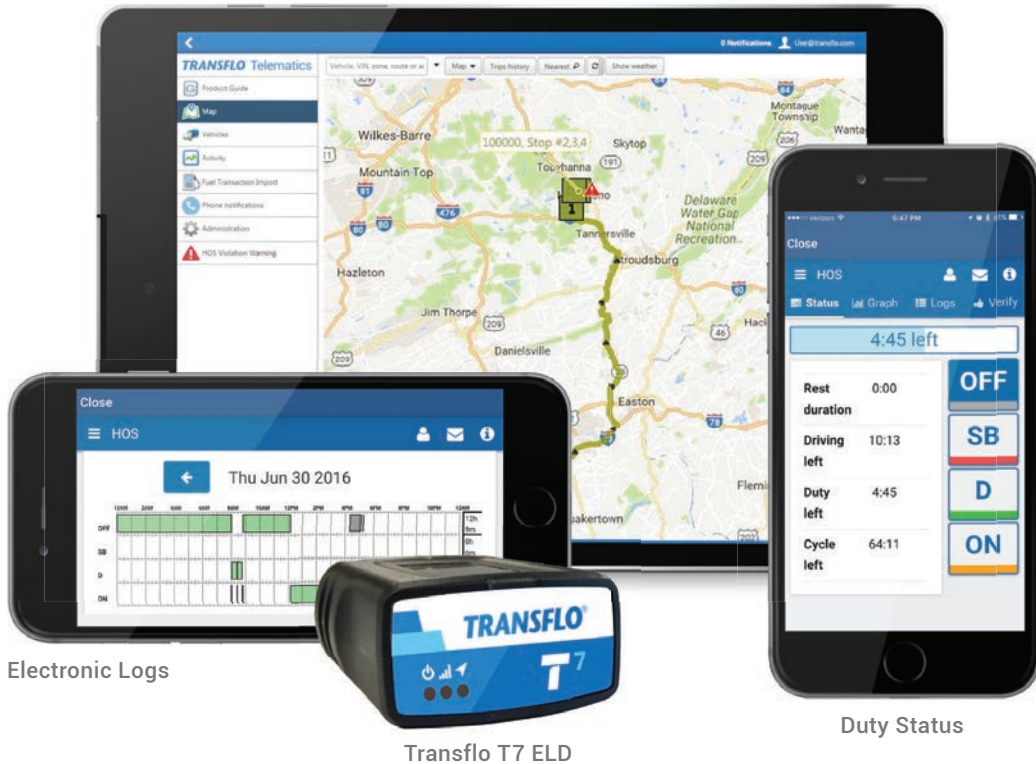**Installs in minutes, easy to use.** Need to comply with new electronic logging rules? Transflo has you covered. The Transflo ELD T7 installs in minutes – no mechanic, no special tools, no problem. Drivers conveniently access and manage electronic logs, duty status, and inspection reports from a mobile app. Fleet managers access data and metrics about their trucks through a reporting portal.

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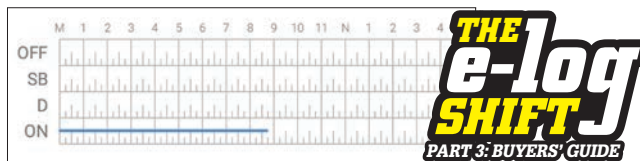
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Dec. 18: Flipping the e-log switch

Since the Federal Motor Carrier Safety Administration's late 2015 release of its final rule for using electronic logging devices, there's been a rising swell of ELD development. Customers can choose from hardware and software options offered by dozens of vendors, many of them new to the trucking industry.

This also means serious preparation on the enforcement side. FMCSA has had reported delays implementing its roadside data-transfer system by which officers will interface electronically with any of these systems. Nevertheless, the agency expects to have it in place prior to Dec. 18, the scheduled enforcement date for using electronic logs.

Fleet-focused onboard devices offer a lot of bells and whistles, but independent owner-operators are likely to gravitate to a baseline-compliance device. They can benefit from additional functions such as IFTA data collection, making mileage tracking automatic and easily reportable.

If you manage more than one truck or are poised for growth, simplified dispatch tools in back-office programs may help you scale your operation.

As you're making your decision, consider these issues:

Support. The final rule specifies an eight-day timeframe for repairing/replacing a malfunctioning ELD. Does the provider stock the kind of hardware inventory to meet such a quick turnaround? How are replacements/repairs handled? For carriers needing more than eight days to replace any ELD, the rule also spelled out a process for requesting more time. It involves contacting your state's FMCSA division office and making your case.

FMCSA registry and compliance. Technically, compliant ELDs must be on FMCSA's registry of devices. The agency's vetting process does not entail testing for compliance, relying largely on manufacturers to self-certify that they meet the rule specs.

That's prompted worry among motor carriers about what happens if their device is later found to be noncompliant. FMCSA's website addresses that scenario: "FMCSA will work with affected motor carriers to establish a reasonable timeframe for replacing non-compliant devices."

At this stage, part of the complexity involving the registry is that automatic onboard recording devices meeting fairly minimal requirements compared to ELD specs are essentially grandfathered through Dec. 16, 2019. The rule notes that any carrier installing an AOBRD prior to this year's ELD enforcement date can use that device until the 2019 date.

EXEMPTIONS: FEW BEYOND OLDER TRUCKS

For owner-operators, perhaps the biggest exemption to FMCSA's ELD requirement is the exclusion of 1999 and older model-year trucks from complying. Narrower exemptions exist for the following:

• Drivers in drive-away/tow-away operations, where the vehicle being driven is the commodity being delivered.

• Drivers operating under the time-card exception to the hours recording rules – the 100- and 150-air-mile radius short-haul exceptions – exclusively.

• Drivers who occasionally keep a log book but do not do so for more than eight days in any 30-day period.

Practically, what that means is that enforcing the requirement to use a registry-listed device is unlikely before that time, particularly for carriers who comply with the ELD rule and install an engine-connected e-log prior to Dec. 18. So the registry's importance for carriers choosing ELDs at this stage is minimal.

As the comparison chart of devices beginning on p. 18 shows, many established ELD vendors remain off the registry. Those providers consulted for stories in this buyer's guide, if not already on the registry, expressed plans for eventual ELD compliance for their products through firmware/software updates as the enforcement rollout progresses.

Nonetheless, for any product not on the registry, ask the vendor about its plans for registering its device and whether it has a plan for success and support for its product beyond 2019.

Do you use any form of an electronic log book in your operation?

Yes, a smartphone app untethered to the engine **7%**

Yes, an engine-connected e-log platform **11%**

No **82%**
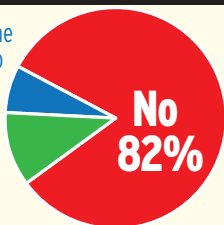
An *Overdrive* survey from a year ago showed minimal e-logging by owner-operators. Since then, many larger fleets have added ELD systems to get a jump on compliance before Dec. 18, but most independent owner-operators have yet to install an ELD.

How the two basic types of ELDs operate

BY TODD DILLS

All compliant electronic logging devices will share a common bond: They can record data coming in from the system that controls the truck's engine and component parts. The final rule from the Federal Motor Carrier Safety Administration was specific in requiring synchronization with the electronic control module. That's one of the reasons the agency didn't require ELDs in trucks of model-year 1999 or older.

The rule requires ELDs to automatically record date, time, location information, engine hours, vehicle miles and identification information for the driver, carrier and vehicle itself. Unless the driver is enabled for use of the vehicle in a "personal conveyance" mode outside of work hours, ELDs are required to record all of those elements "when the driver indicates a change of duty status or a change to a special driving category" such as a yard move, the rule states.

When in motion, ELDs are required to record all of the information on an hourly basis at a minimum. Many ELDs are offered as part of systems built for detailed tracking purposes, useful to fleets and owner-operators for purposes such as automatic notification of arrival times.

Those systems are capable of recording in a much more refined manner, and some may default to that. Providers may or may not have the ability to adjust the refinement.

Though there are plenty of variations, two types of ELDs have emerged, as labeled on the chart that begins on page 18:

In **dedicated unit** configurations, the device is supplied by the provider and is likely to remain in the truck.

BYOD ("bring your own device") systems allow buyers to purchase their own hardware for the driver interface, such as an owner-operator using an app on a personal Android- or iOS-powered smartphone. A carrier may seek out a deal on tablets to dedicate to its power units and drivers.

Dedicated units

Most older forms of electronic logging devices, known as electronic onboard recorders (EOBRs) or automatic onboard recording devices (AOBRDs), have been the dedicated-unit type. Two examples that have been available for years are Omnitracs' MCP series and PeopleNet's current products used by many drivers employed by or leased to larger carriers.

Many of these units provide ELD functionality in a single device package tied

ISE Fleet Services' eFleetSuite baseline compliance device is a dedicated unit with its own cellular data connection but without a lot of extra functionality beyond logs.

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directly to the ECM by a cable and plug.

Like mobile phones, such units use connections to the cellular network and GPS functionality to deliver on the ELD rule's requirements for recording location, mileage and engine hours. Data storage occurs using a combination of the internet cloud, back-office servers and the device itself.

A notable exception among devices available for years now exists in the base model of the Continental VDO RoadLog, which is limited to hours of service recording and inspection-report functionality. With no connection to the cellular network with the device, fleets and owner-operators manage data storage via a USB-connected drive to transfer records to a laptop or other computer.

Other dedicated devices may pair two pieces of hardware, bridging the gap between the traditional single-unit EOBR and the two-piece BYOD systems readily available today.

In most cases, those devices are in evidence on the chart when a BYOD and a dedicated version exist from one manufacturer. While the J.J. Keller Encompass and Rand McNally HD100 systems both are BYOD-capable, they also are offered with company-branded Android tablets that come preloaded with software: the Compliance Tablet from Keller and the TND from Rand McNally.

Any fleet or owner-operator willing to make the investment in dedicated tablets can turn a BYOD system into a dedicated one. For years, Bill Frerichs of St. Louis-based Frerichs Freight Lines has run the BigRoad logging app on Android tablets dedicated to his 10 trucks. Though Frerichs at press time still was evaluating his options for mandate compliance, moving all 10 of his trucks' tablets to ELD functionality could be as simple as signing on with BigRoad's program for leasing engine-connection hardware to pair to the tablets.

Jack Schwalbach, who manages the private fleet of Reinders, a Wisconsin-based turf and irrigation products company, did just that with Geotab. "We have dedicated tablets," Schwalbach says. "The tablets are used just for logging – the data plan, we have locked down. Everybody's got their smartphone on their own, so they use that" for anything else.

Bring your own device

The "bring your own device" phrase and its BYOD acronym came into use with the profusion of smartphones over the past decade. In trucking, it's a common term to describe a major part of today's ELD market.

Dozens of providers are offering their own versions of BYOD systems. A BYOD-configured ELD consists of a "dongle" that connects to the ECM via the cab's onboard diagnostics port. The dongle typically pairs via a Bluetooth connection with a smartphone or tablet to transmit data.

Software from the ELD vendor on your smartphone or tablet enables you to change duty status manually when you stop. When your vehicle goes into motion, the ELD automatically will shift to the drive line in the log book. (For more on BYOD ELDs, read the story on p. 28.)

Variations exist. The engine-connection dongle may or may not have a cellular connection. In the case of the KeepTruckin ELD, the ECM-connected device maintains a GPS connection but no cellular connectivity itself. For that, the system relies on the connected smartphone or tablet and its data plan.

Meanwhile, Geotab's Go — also a BYOD solution (and marketed as the Transflo ELD T7 by Pegasus TransTech) — maintains its own cellular connection and is capable of being updated and troubleshot over the air if software/firmware updates are needed. ◊

The KeepTruckin BYOD-style ELD "black box" connects to the ECM via cable and plugin. KeepTruckin recommends users mount the device in the dash to maintain a clear GPS connection. The device pairs with the KT app on a smartphone or tablet via Bluetooth connection.

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How devices and drivers track duty status changes

BY TODD DILLS

While electronic logs generally automate parts of logkeeping and in some ways simplify the rest, they still require direct driver involvement in most duty status changes. As any driver will know, too, turning the entire process over to a device and its interaction with the truck just isn't possible.

As with paper logs, drivers using electronic logs are in control of all duty status inputs. The exception is the drive line, which functions automatically as specified by the Federal Motor Carrier Safety Administration's final rule. It's also the only status the driver will be unable to edit directly through his driver login.

To minimize the need for annotations required with any edit, the long-in-practice habit of "catching up the log book" by drivers will mostly fall by the wayside. With no pencil to be pushed across paper, as long as the device is operational and open, duty-status changes happen with the simple push of a button in real time.

Edits made by the driver are possible for every line but the drive line, which is locked down since drive time
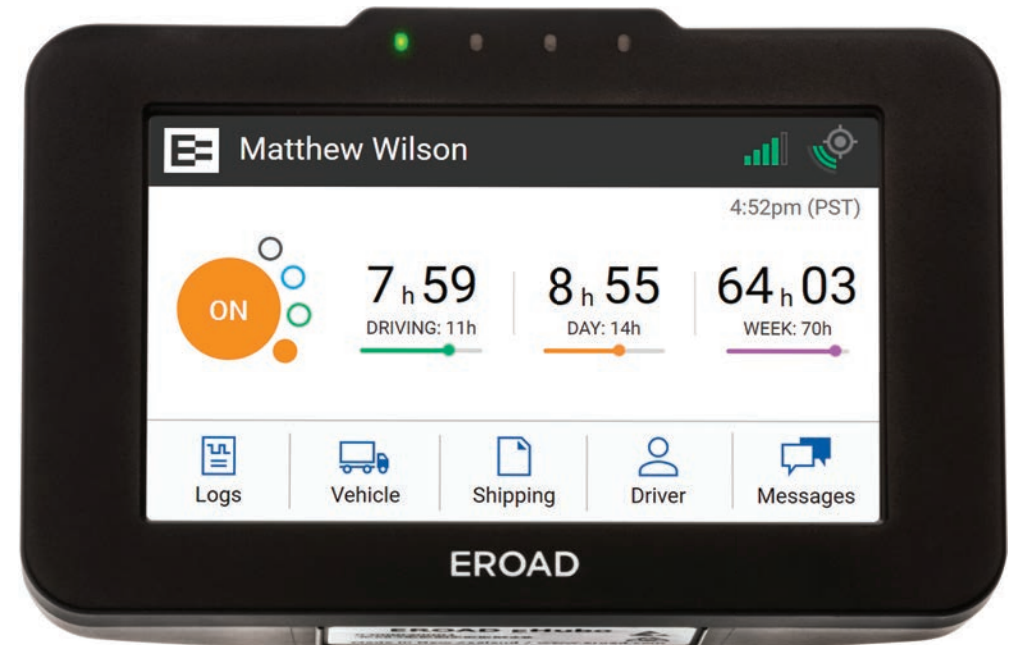
Previous versions of rules that would have mandated electronic logs for some carriers would have required the devices to notify drivers regarding their hours status when they were approaching a limit. That feature is not a part of the device specs for the new rule, but many e-log providers offer quick-glance views, such as the one shown from ERoad, that amount to quick-compliance dashboards, showing time remaining in the daily and cumulative hours limits.

is based on vehicle movement. The drive line can be edited from the administrator's account to classify an unassigned driving event or drive time as personal conveyance or a yard move.

Any edits made from the administrator account in the back-office login must be certified as accurate by the driver. This occurs through the driver's user interface of the ELD when the edit is made.

An independent owner-operator may have two separate logins for the system: one as a driver, the other as the administrator. An independent lacking two email addresses may need to get a second one. Some systems require unique addresses to associate with the logins as administrator and driver-user.

When it comes to the look and feel of the user interface that e-log provider companies are required to produce,

the ELD final rule leaves plenty of room for variation. It did, however, make these requirements of all ELDs:

1) A GRAPH GRID of any driver user's hours analogous to that used in paper logs, showing the various off-duty, sleeper berth, driving and on-duty not-driving lines. The grid display – or as an alternative, a printout, being used by Continental's VDO RoadLog device and its built-in printer – is intended
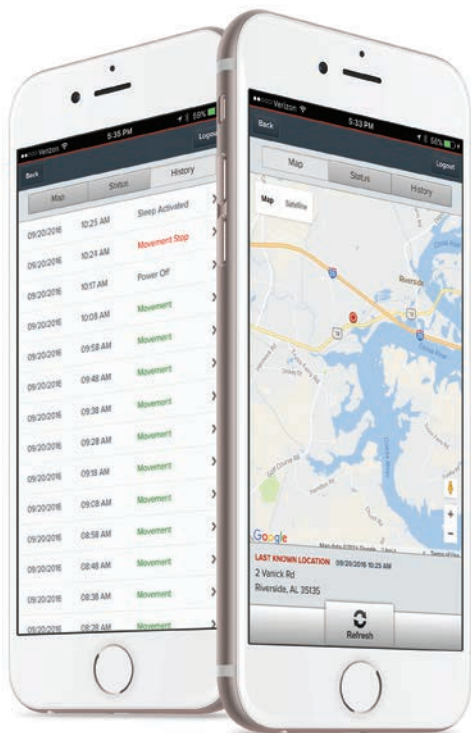
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for quick interpretation by law enforcement. This serves as a backup to other required methods of data transfer.

Most providers integrate the grid into the driver's basic log view on the interface. Many reproduce it with further information in a special inspection screen for display to law enforcement, similar to what officers are used to seeing on paper today.

2) ON-DUTY DRIVING STATUS is required to be triggered automatically when the speed hits 5 mph. If the driver is not logged into the system prior to that change in status, an "unassigned driving event" is recorded by the system and can be reconciled only from the administrator account, not via the driver interface.

According to the rule, after a driving status is triggered, the vehicle is considered in motion by the ELD until "speed falls to 0 miles per hour and stays at 0 miles per hour for 3 consecutive seconds," after which manual duty status changes are possible.

FMCSA noted it would expect that in most cases drivers would make a duty status change in such an event before shutting the vehicle down. The ELD will record all engine on/off activity.

3) THE DEFAULT DUTY STATUS for any ELD is on-duty not-driving. Absent a driver's direct change, after the vehicle has been in motion, the ELD automatically should transfer the

Courtesy of Mobile Warrior
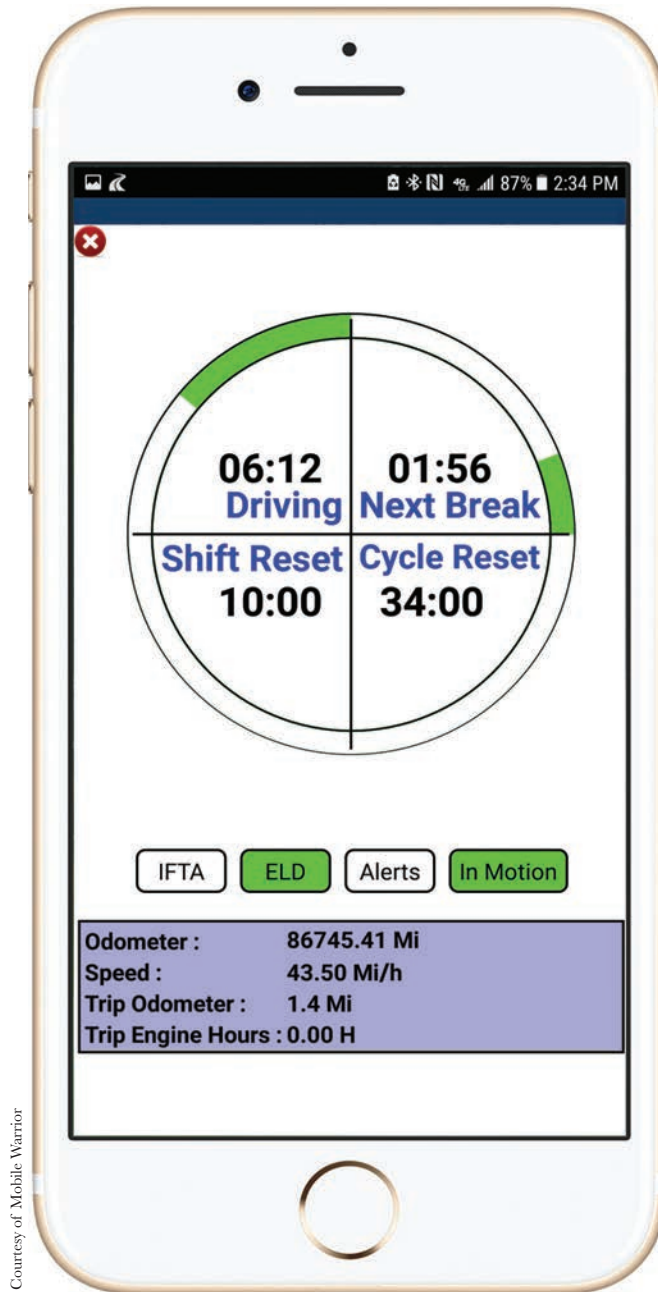
Ray Cox, Mobile Warrior sales director, says his company's iDDL device has a "touch-free ELD gauge." The screen, locked while the truck is in motion, "shows the driver everything going on from a compliance perspective. Our gauge will show how many hours and minutes are left before the driver must take a 30-minute break or how long they have left for driving, and if they have any violations that need to be addressed."

driver to Line 4 after the vehicle has been stationary for five minutes.

4) YARD MOVES functionality was specified in the ELD

final rule as a way for carriers to move vehicles around company terminals without automatically triggering an on-duty driving status.

Yard-moves mode for particular drivers will be enabled from the administrator account and then selected by the driver when making a yard move. The default status for a yard move is Line 4, on-duty not-driving.

5) PERSONAL CONVEYANCE uses of the truck while off-duty also are enabled from the administrator account for drivers. The personal conveyance mode then can be selected by the driver using the truck for personal reasons during off-duty periods.

Once selected, the default duty status is off-duty for the ELD for as long as it's selected, including when in motion. GPS refinement is reduced during personal conveyance mode selection from a one-mile radius to 10 miles.

6) VARIOUS HOURS EXEMPTIONS AND SPECIAL RULE VARIANTS such as those pertaining to the 30-minute break and rules for oilfield operations can be handled as they have been, FMCSA's rule states, via notes sections to the logs.

With the exception of yard moves and personal conveyance, "all other special driving categories, such as adverse driving conditions … or oilfield operations … would be annotated by the driver, similar to the way they are now."

However, numerous ELD providers support special oilfield rule sets, including Apollo, E-Log Plus, Hutch, Omnitracs' XRS device, PeopleNet and others. **0**

Bonus features abound

BY TODD DILLS AND AARON HUFF

DriverTech this year launched the DT4000 Rev 7, a communications platform that comes with ELD capabilities and a front-facing dash camera to capture critical event video. Other ancillary features include truck-specific navigation and the ability to link with Cummins Connected Diagnostics and the Meritor Tire Inflation System. M2M in Motion is another ELD provider offering dashcam capabilities for critical-event video capture.

From built-in dashcams to scanners and transportation management software (TMS) system integration capabilities, electronic logging devices do more, often a lot more, than merely provide hours of service functionality.

ISE Fleet Services' eFleetSuite ELD, for example, can be scaled to add features on the Android system that underlies the dedicated unit. Owner-operators and fleets "can invest on it upfront and spend more money down the road if that's what's necessary," says Chris Nelson, ISE vice president.

Although ISE calls the eFleetSuite

e-logger a "baseline compliance" device designed originally to satisfy the needs of a particular set of leased owner-operators, logs aren't the only thing it can do. As with many competing devices, the GPS-enabled connections to the truck's electronic control module open up the possibility to automate fuel-tax data collection that can be output to multiple IFTA providers, Nelson says.

For Jack Schwalbach of the Reinders private fleet, similar functions within the Geotab e-log service are among the biggest benefits he's seen. "Fuel tax is a huge problem," Schwalbach says – or *was*, before moving to Geotab's system

paired with dedicated Android tablets for logs. Previously, Reinders often was at the mercy of its drivers' record-keeping abilities or best guesses for state mileages.

"Now, at the end of the month and end of the quarter, I gather the info for fuel tax and don't waste eight hours at the end of the month, minimum, trying to get the records," he says. "The guy in accounting can push a button, and there it is."

ERoad and its ELD also take tax-management functionality to another level. The product is built on top of a system originally designed for debiting

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weight-mile user fees in New Zealand and then piloted in Oregon to track use in that state's weight-mile system. After that, says company representative Gail Levario, the product will have "an end-to-end solution on the IFTA side."

Other administrative-type functionality involves electronic driver vehicle inspection reports (DVIRs) for pre- and post-trip inspections. Many devices provide drivers with an electronic checklist for areas that need work. Maintenance personnel or the driver himself then can sign off on repairs as they happen, creating an electronic maintainence record.

The Drivewyze weigh-station bypassing service is integrated as an option in the dedicated ELDs of Rand McNally, Omnitracs, PeopleNet and Zonar.

Many systems also present the back office with dispatching tools, from map views of drivers' locations and available hours to historical views of routes and more. Bill Frerichs of Frerichs Freight Lines says that even without full ELD functionality, his fleet has been able to improve dispatch by using Android tablets running BigRoad's software.

"We're using their map feature so you can see the drivers and using it to tell them where to fuel in some cases," says Frerichs, who participates in the National Association of Small Trucking Companies' fuel-discount network. "My key people [in the office] all have that BigRoad app on their desktop."

Such functionality could help more carriers track detention time. "ELDs are going to come full circle and get your time at the docks under control," Frerichs believes.

A variety of business tools also are emerging from some new players in the ELD landscape. Both the Simple Truck ELD and Konexial's My20 are marketing load board-like services to owner-operators. Konexial's Rick Dempsey says the app associated with his company's BYOD ELD service, set to debut in June, "will alert a driver of [available loads] within a geographic location."

Larger fleets also are finding ways to

Courtesy of iGlobal LLC

iGlobal's Edge MDT ELD and communications platform features a push-to-talk cellular option with a familiar CB-style microphone and is used by Paramount Freight Systems to accelerate payments to its owner-operators. With the Edge's built-in high-speed scanner, owner-operators use the module "like a cash machine," says iGlobal's Chris Phibbs. "They'll pay the owner-operator as soon as they get their paperwork."

make the most of the e-log transition by using their hours of service data for more than just compliance. The data can be integrated with TMS systems and routing applications that optimally match drivers to loads and make adjustments to the pickup-and-delivery schedule as the day progresses.

Omnitracs' new Route, Dispatch, Compliance (RDC) system is designed for fleets with last-mile delivery operations that operate under HOS regulations. The web-based system uses data from the Omnitracs XRS mobile and ELD application to plan routes and make real-time dynamic changes as the day progresses.

P&S Transportation, a 1,100-truck carrier based in Birmingham, Ala., uses a planning tool called Driver Feasibility in its LoadMaster TMS system from McLeod Software. The tool

provides an automated checklist for driver-load assignments by evaluating drivers' current hours, location, load status and future availability.

P&S requires all personnel in operations and dispatch to use the tool when assigning loads to drivers that run e-logs, says Tiffany Giekes, director of business process. The company implemented e-logs three years ago in its flatbed and refrigerated operations. "We are making good business decisions before we talk to a driver about a load," Giekes says. "It is a huge benefit to know if a driver is going to make it on time."

P&S driver managers also use Driver Feasibility to coach drivers who are relatively new to e-logs. Managers can show them how to plan trips, including where to take breaks and fuel, to make deliveries safely and on time.

The price of compliance

BY TODD DILLS

Today's electronic logging devices are different animals from the onboard communications and logging systems of even a decade ago. And while the $1,000-plus onboard systems with expensive ongoing costs in maintenance and subscriptions haven't gone away entirely, many inexpensive options exist, even among dedicated units.

Hardware purchase costs for dedicated-unit systems range from a little more than $400 for Hutch's Mercury unit up to $2,000 for PeopleNet's top-of-the-line, fully-functional custom fleet management device.

Available for $700, the Continental VDO RoadLog dedicated e-log is no longer alone in the market with a pricing model that doesn't include a subscription. It does, however, continue to set itself apart in being one of the only systems that doesn't open up an internet connection with the truck's ECM and contains a built-in thermal printer.

Offering its software as "freeware," the new Zed ELD, available for iPhone (Android coming soon), might be the most affordable ELD. It costs $200 and requires no subscription fee.

Courtesy of owner-operator Buster Lewis

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USED LOGGING DEVICES RESOLD AT DISCOUNT

Pivot Technology Resources is an outgrowth of company founder Cory Hunt's long experience in trucking from the information technology side of things. His experience dates to the mid-1990s when he did "troubleshooting, installing, uninstalling" of Qualcomm satellite equipment for Des Moines, Iowa-based TMC.

"It got me interested in the mobile communication systems" themselves, after which he worked for various providers, learning "wiring, loading and unloading software" and more.

When a couple of trucking companies that were oversold equipment by one of Hunt's employers asked him where to go with the extra stock, the idea for Pivot was born.

"This is happening all over the country," Hunt says. "There's equipment coming out of trucks that still has a useful life – good working equipment. Trucking companies have so many other problems to deal with than how to sell these other mobile communications systems." The mission was to figure out how to facilitate others' investment in the used equipment.

"We can offer high-quality equipment for about half the price and still have a warranty, still perform maintenance on them," Hunt says. Customers, both fleets and owner-operators, "partner with us as an ongoing resource – the core value is being able to supply them with good equipment and being an outlet for the equipment they don't need or want – or if they're just going out of business."

Pivot also can find a solution that fits a customer's particular needs. "We're not restricted to any manufacturer," Hunt says. Fleets often come to him noting a specific set of functions, and he gets to work finding the right solution.

Pivot has relationships with some all-owner-operator fleets that have moved to electronic logs to provide a lower-cost option for the units. Some of the resale equipment includes hardware from Omnitracs and PeopleNet.

Pivot also is a distributor for some new systems, including those made by Rand McNally, the company Hunt calls its go-to for many smaller operations.

Warranties and other repairs to any piece of equipment bearing the Pivot mark are facilitated by the company directly, whether through over-the-air troubleshooting or broader service.

"Our processes have been refined over the years," Hunt says. "We have it down to a science. I feel like our repair process is a little better than some of the service providers." Rather than bear the

Pivot's inventory of used communications equipment can be accessed via PivotResources.com.

cost of shipping the unit out for repair under warranty, "if you have a bad component, you call us," he says. "If it's in our system as one of ours, we can send another component out overnight with an airbill on us to cover the shipping cost."

Some buyers might have concerns over older units that are grandfathered in for ELD mandate compliance until the late 2019 deadline. Hunt says software updates from the service provider are most likely to cover that concern on any Pivot-sold equipment, similar to what many providers have been saying about their existing hardware.

For engine-connection-device purchases for BYOD ("bring your own device") systems, costs range from around $170 up to about $500 on the top end.

Most systems with subscription-based pricing, even those with the most expansive functionality for fleets, can start with no hardware investment other than a lease cost rolled into a monthly or annual fee. Monthly subscription costs vary with the variety of services used, though many start at as little as $15.

It's possible to satisfy the requirements of the Federal Motor Carrier Safety Administration's ELD mandate for as little as a onetime $200 investment. Zed Connect made news in March for its Zed ELD, turning the common BYOD pricing model on its head.

Most BYOD ELDs, as evident in our comparison chart, operate in the Software-as-a-Service (SaaS) model, with subscription fees ensuring full functionality. While many give away or lease engine-plug-in hardware, Zed is charging just $200 for the hardware and giving away the smartphone app and web-based administration portal.

"This is an application of an innovative company that believes there are a lot of truckers out there who actually don't want to have that monthly fee and the charges for a lot of things that aren't applicable to their business," says Jill Nowlin, Zed's sales director.

Tailoring the company's e-log offering to owner-operators and small fleets, Nowlin likens the more well-equipped

services to cable TV packages. "You get 800 channels, and you only want two or three," she says. "We're targeting that group to be able to give them an ability to meet this mandate" and not keep a monthly fee subtracting from the bottom line in perpetuity.

Along with Zed, Blue Ink Technology has adopted a similar pricing model for its BYOD ELD – a $295 onetime hardware purchase. BIT's Mike Riegel expressed a similar desire to provide something "very lean" and simple to "keep the cost low" for small fleets and owner-operators.

The BIT ELD was not unveiled in time to be listed on the chart in this guide. Find more detailed specs of the device by searching the name at OverdriveOnline.com.

ELD SPECS

In addition to logging, the electronic logging devices listed here allow for electronic driver vehicle inspection reports. Most include options for messaging and back-office unit tracking. Ancillary features listed are not comprehensive in most cases.

Some features may require further investment in services and/or hardware. Many systems include features enabled by the connection to the engine's electronic control module (ECM), including, for larger fleets, the capability of integration into transportation management software systems.

Unless otherwise noted, costs in this chart apply to a one-truck operator independent of a larger fleet, buying aftermarket. Volume discounts often apply. Many providers offer lease options for hardware with prices bundled into service packages.
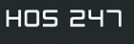
Some systems are "bring your own device" (BYOD) products, where smartphone or tablet software is paired with a device that connects to the ECM. For such systems, associated costs exclude the cost of the mobile device unless otherwise noted. Associated data plan charges also are not included.

Several providers, including the RapidLog ELD from Eclipse Software, did not meet the deadline to be included in the print chart and also can be examined online at OverdriveOnline.com/2015ELDChart. As new products are introduced and existing products are added to the Federal Motor Carrier Safety Administration's ELD registry, the online chart will be updated.

For more about the registry and its status, see the story on page 1. User reviews, where noted, are accessible via CCJDigital.com/Reviews.

Provider	Apollo Solutions	ATS Fleet Management Solutions	BigRoad	Blue Tree Systems	CarrierWeb
Device Name	Apollo	ELD ABW w/ ATS e-Track Certified	DashLink ELD	BT500	CarrierMate
Type of Device	BYOD | Android, iOS	BYOD | Android	BYOD | Android, iOS	BYOD | Android	Dedicated unit | two options, Win-CE (5700) and Android (7000) OS
Initial cost	$0 with lease, $75 to purchase ECM-link	$135 (includes first three months' service, year of support)	$0 with lease	$0 with lease/ purchase over 3-5 years	$749, lease options available
Ongoing lease or service fees per truck	Monthly: $15-$40 depending on options	Monthly: $15	Monthly: $15 per user, $10 per truck	Monthly: $20-$55 depending on options	Monthly: $31 and lower
Other capabilities beyond logs	IFTA, AOBRD/ELD operating modes, signature capture, proactive notifications, back-office integration, Canada/California/oilfield support	IFTA, optional close-support software; ELD ABW otherwise is a baseline compliance device, ATS provides e-Track Certified software that powers it	Document capture and sharing, engine diagnostics, back-office dispatch geared to small fleets	Wi-Fi hotspot, driver scoring (performance, safety, compliance), navigation, job workflow management, reefer temperature monitoring	Driver/truck performance and engine diagnostics/ preventive maintenance reporting, in-cab scanning, navigation; road segment speeding available at additional cost
On FMCSA registry?	Yes	Yes	No	No	No
Find more information	AssuredTracking.com	ELD.ABW.com	BigRoad.com or read user reviews at CCJ	BlueTreeSystems.com	CarrierWeb.com or read user reviews at CCJ

Cartasite	Continental	Dispatching Solutions	DriverTech	E-Log Plus	ERoad	Fleet Complete	FleetUp	Forward Thinking Systems
DriveTime	VDO RoadLog	DSI eLogs	DT4000 Rev 7	E-Log Plus	ERoad ELD	AT&T Fleet Complete HOS	FleetUp	Field Warrior
BYOD | Android or paired with ruggedized tablet	Dedicated unit	Dedicated unit or BYOD | Android, iOS	Dedicated unit	BYOD | Android (iOS coming soon) or paired with ELP-branded Samsung tablet	Dedicated unit	BYOD | Android, iOS	BYOD | Android, iOS	BYOD | Android (iOS coming soon) w/ Field Warrior app | or paired with dedicated Garmin Fleet series
$0 with lease, $500 approximately with dedicated tablet	$700, or $0 with lease option	$450-$700 depending on hardware, capabilities	$799	$169 in BYOD configuration, higher with tablet	$0 with lease, $215	$0 with lease	$0 with lease	$0 with lease
Monthly: $15-$30	$0 for logs, DVIR, IFTA data collection	Monthly: $20 for ELD, $40 for ELD and GPS	Monthly: $30 and higher depending on options	Monthly: $19	Monthly: $39-$59 depending on options	Monthly: $36	Monthly: $25 and higher	Monthly: $20-$50 depending on device type
Variety of driver safety, fleet management functions possible	Built-in thermal printer, real-time data transfer, fuel consumption, engine diagnostics, driver scorecard, integrated dispatch for small fleets	GPS tracking, transport and order management, smart forms, alerts, geofencing, IFTA, device events, more	Dashcam with critcal event capture; navigation; integrations with some TMS, diagnostics and tire-inflation providers; smartphone app to link business processes to drivers	IFTA, maintenance alerts, oil-field-capable, auto-backup to cloud storage account, supports up to six-driver slip seat	Electronic weight-mile tax, IFTA, IRP recordkeeping; driver behavior reporting/management; maintenance, fuel and other management functions; geofencing and event tools	Customizable for fleet management functions such as dispatching and engine diagnostics, Wi-Fi hotspot-capable	Patented fuel waste analysis, e-maintenance, engine diagnostics, IFTA, geofencing, full fleet management solution	Geofencing, maintenance tracking, driver scorecards, IFTA, systems integration, navigation, live-streaming cameras, signature/image capture, roadside assistance program
Yes	Yes	Yes	No	Yes	Yes	No	Yes	No
Cartasite.com	VDORoadLog.com or read user reviews at CCJ	DSIMobile.com	DriverTech.com	E-LogPlus.com	ERoad.com	FleetCompletecom	FleetUpTrace.com	ftsgps.com

Provider	GeoSpace Labs	Geotab	Gorilla Safety	GPS Insight	HOS 247	HOS Reporter	Hutch	iGlobal
Device Name	HG100	Geotab Go	Gorilla Safety ELD	ELD 2000	HOS 247	HOS Reporter-BT	Mercury	Edge MDT / Journey8 tablet
Type of Device	BYOD | Android, iOS	BYOD | Android, iOS	BYOD | Android, iOS	Dedicated units	BYOD | Android, iOS on the way	BYOD | Android, iOS | or paired with tablet	Dedicated unit	Dedicated unit
Initial cost	$0 with one-year service commitment, otherwise $99	$170	$175	$650 for ELD 2000 and GPS tracking device combination, rental options available	$0	$0	$475, lease options available	$499 and up depending on configuration
Ongoing lease or service fees per truck	Monthly: $19	Monthly: $20-$30 approx.	Monthly: $24 and higher	Monthly: $34.95 and higher for ELD and GPS tracking software	Monthly: $17-$23 depending on options	Monthly: $15 (two years prepaid) or $18 (one year)	Monthly: $19 and higher, depending on options	Monthly: $25 and higher depending on options and configuration
Other capabilities beyond logs	Maintenance resolution/ tracking, paperless manifests and barcoding, dispatch, time-card functionality, route logging, signature capture, detention tracking/billing, mapping	IFTA data collection, engine diagnostics, driver scorecards, safety/risk management functions, data integration for management, more custom adds from Geotab Marketplace	IFTA, AOBRD and short-haul settings, driver accident reporting, document capture/ management, fuel management, custom maintenance management, user permissions	IFTA data collection, engine diagnostics, routing, hierarchy functions for larger fleets, suite of tailored GPS tracking solutions	IFTA, compliance dashboard, data sharing, fleet tracking	IFTA data collection, AOBRD/ELD modes	Wireless/satellite tracking options, IFTA, engine diagnostics, maintenance management, compliance/ safety systems, tire pressure/trailer monitoring, signature capture, more	Edge MDT: built-in scanner, push-to-talk cellular. Both: a la carte pricing for IFTA, driver scorecards/ settlements, engine diagnostics, TMS integrations (TMW, McLeod), more
On FMCSA registry?	Yes	No	Yes	No	No	No	Yes	Yes
Find more information	GeoSpaceLabs.com	Geotab.com	GorillaSafety.com	GPSInsight.com	HOS247.com	HOS-reporter.com	HutchSystems.com	iGlobalLLC.com

ELD 50™

DC 200™

A brand you
know and **trust**

The ELD 50™ and DC 200™ were born out of Rand McNally's 80+ years of expertise in the Commercial Transportation industry. These versatile, HOS compliant BYOD solutions allow drivers to get the features they need while remaining cost-conscious.

ELD 50™*

The ELD 50™ is a low-cost, easy-to-use E-Log device that installs in seconds. With an affordable monthly service plan, drivers can view and certify logs, create and view DVIRs and upload pictures of their fuel receipts right on their Rand McNally TND™ 740 device, Rand McNally tablet or other Android® device using the Rand McNally DriverConnect app.*

DC 200™*

The DC 200™ is a sleek electronic logging and fleet-management that plugs directly into a truck's diagnostic port and pairs with Android® devices, providing a simple, full-fledged solution. Built-in cellular service, Bluetooth® and Wi-Fi eliminates the need for a separate cellular plan, and with the Rand McNally DriverConnect app and web portal, drivers can access HOS logs, DVIRs, fuel receipts, and message and manage reports.

Rand McNally DriverConnect App

Drivers can edit and certify logs and complete DVIRs all on the Rand McNally DriverConnect app. The app also gives drivers access to a gauges dashboard with information on 10 different diagnostics from the truck's engine, including average fuel economy, boost pressure, gallons per hour, and battery voltage. The Rand McNally DriverConnect app syncs automatically with the Rand McNally DriverConnect web portal where drivers can view up to 6 months of log history.

For more information visit randmcnally.com

*Subscription plan required.
**May not work with older Android devices.
Android is a trademark of Google, Inc.

Better Mobile Fleet Management.

RAND M^cNALLY **TRUCK DATA**

here

Provider	ISE Fleet Services	J.J. Keller	KeepTruckin	Koniexal	Load Logistics	M2M in Motion	MiX Telematics	Mobile Warrior
Device Name	eFleetSuite	Encompass	KeepTruckin	My20	Load Logistics TMS	M2M018	MiX Rovi	iDDL
Type of Device	Dedicated unit	BYOD | Android, iOS | or paired with dedicated J.J. Keller Compliance Tablet	BYOD | Android, iOS	BYOD | Android, iOS	BYOD | Android tablets	BYOD | Android (iOS coming soon)	Dedicated unit	BYOD | Android, iOS
Initial cost	$575, lease options available	$299	$0 with hardware lease	$0	$499 for adaptable engine relay	$0 with lease, $215	$0 with lease	$0 with lease, $175
Ongoing lease or service fees per truck	Monthly: $24	Monthly: $20 or less with multi-driver discounting	Monthly: $20 for service	Monthly: $20 or $10 with three-year commitment	Monthly: $25 and higher	Monthly: $25 and higher	Monthly: Varies with service plan/bundle	Monthly: $20 and higher
Other capabilities beyond logs	IFTA data collection, compliance, mapping, customizable	Optional IFTA reporting, navigation, engine diagnostics, driver qualification, drug and alcohol management, accident tracking, training, recordkeeping	IFTA, idle-time tracking, engine diagnostics, geofencing, driver scorecards, TMS integrations (TMW, McLeod)	IFTA, dispatch/load functions, engine connection easily transferred from truck to truck, engine diagnostics, lane analysis, customizable for small fleet management	Fuel options, navigation/mapping, patent-pending GoLoad truckload freight-matching	IFTA, engine diagnostics and other management capabilities, dashcam with critical-event capture and reporting, driver scoring, trailer tracking, mobile device management/lockdown capabilities, more	IFTA, geofencing, maintenance tools, driver/vehicle utilization tools, fuel/engine monitoring, journey management, integrated video cameras, distracted and fatigued driving monitoring, more	IFTA, no-touch ELD gauge, dispatch/load functions, document capture, time card, expense tracking with integration to accounting, DVIR with custom checklists, more
On FMCSA registry?	No	No	Yes	Yes	No	Yes	No	Yes
Find more information	ISEFleetServices.com	JJKeller/ELogs.com or read user reviews at CCJ	KeepTruckin.com	Konexial.com	LoadLogistics.com	M2MinMotion.com	MiXTelematics.com	MobileWarrior.com

Provider	Navistar	Nero Global Tracking	Omnitracs	Omnitracs	Pedigree Technologies	Pegasus TransTech	PeopleNet	Quartix
Device Name	OnCommand Connection	Nero Global Tracking	MCP/IVG	XRS	ELD Chrome	Transflo ELD T7	eDriver Logs	Electronic Logging from Quartix
Type of Device	BYOD | Android, iOS	BYOD | Android | or paired with dedicated Android tablet	Dedicated units	BYOD | Company-certified Android, Windows Mobile devices	Cab-Mate Open: BYOD, Android | Cab-Mate Connect: Dedicated unit	BYOD | Android, iOS	Dedicated units	BYOD | Android tablets
Initial cost	$120	$0 with hardware lease, $200 or higher without	$799 and up depending on model, lease options available	$0 with lease, $200 to buy engine relay	$0 with lease, $299 and up to purchase hardware for BYOD, $599 and up for dedicated unit	$99 for hardware/harness	$0 with lease option up to $2,000, depending on capabilities	$79-$119 depending on available promotions
Ongoing lease or service fees per truck	Monthly: $15-$30	Monthly: $20 and higher	Monthly: $20 and higher	Monthly: $20 and higher	Monthly: $20 and higher	Monthly: $25-$31 depending on plan selected	Monthly: $30-$60 for service, more with lease if applicable	Monthly: $19.20-$22.20/month or $4/month on top of InfoPlus tracking system subscription
Other capabilities beyond logs	Vehicle location tracking, geofencing, harsh braking and acceleration, idle reporting, breadcrumb trails; error help and alerts of violations; IFTA; advanced vehicle diagnostics	Engine diagnostics, fuel management, IFTA data collection, alerts and reports, geofencing, driver scorecards, maintenance module, more	Engine diagnostics, mobile-based weigh station bypass, IFTA, in-cab scanning, truck navigation, geofencing, custom mobile forms, TMS integration, idle time tracking, more	Base service plan includes engine diagnostics and fuel-purchase and maintenance functions. Premium package includes IFTA and navigation with oilfield capability.	IFTA, engine diagnostics standard. Expandable and customizable with fleet management functions, including dispatch, forms, job management, maintenance, tires, seatbelts, more.	Base plan adds IFTA to common functionality, one-year warranty; premium package adds vehicle analytics, driver behavior insights, accident detection/reconstruction, more	Customizable for fleet management functions, mobile-based weigh station bypass	In addition to sophisticated tracking tools, fleet management functions (including dashboards), IFTA and more
On FMCSA registry?	No	No	No	No	No	No	No	No
Find more information	www.OncommandConnection.com	NeroGlobal.com	Omnitracs.com or read user reviews at CCJ	Omnitracs.com or read user reviews at CCJ	ELDCertified.com	Transflo.com	PeopleNetOnline.com or read user reviews at CCJ	Quartix.com

Rand McNally	Rand McNally	Rand McNally	Simple Truck ELD	Spireon	Teletrac Navman	Telogis	Zed Connect	Zonar
DC200	TND765	ELD50	Simple Truck ELD	FleetLocate FL7	Director	Telogis Work-Plan	Zed ELD	Zonar Connect
BYOD | Android | or paired with TND tablet	Dedicated unit	BYOD | Android | or paired with TND tablet	BYOD | Android, iOS | tablet options available	BYOD | Android, iOS	Dedicated unit	BYOD | Android, iOS	BYOD | iOS (Android soon)	Dedicated unit
$399	$699	$149	$0	$0 with lease	$0 with lease	$0 with lease option up to $100 and more	$200	Varies according to fleet size and options chosen
Monthly: $25 and higher	Monthly: $20 and higher	Monthly: $15 and higher	Monthly: $19 (first six months free, within limits)	Monthly: $26.95 and higher depending on add-ons	Monthly: $45 and higher depends on options	Monthly: $36 including hardware lease and up	$0	Varies with service plan/features
TMS integration, workflow, IFTA, mapping, analytics, engine diagnostics, cellular modem	Truck-specific navigation, TMS integration, workflow, IFTA, mapping, analytics, engine diagnostics	TMS integration, workflow, IFTA, mapping, analytics, engine diagnostics	24/7 support, IFTA, parking assistance, engine diagnostics, load boards, roadside assistance, discounted fuel cards, available in Spanish	IFTA, driver safety alerts/reports, driver scores, audible alerts, engine diagnostics	IFTA, engine diagnostics, dispatch and messaging, safety analytics, workflow solutions, truck-based navigation, driver scorecards, TMS integration, guaranteed compliance with ELD specs	Document capture, trip plan sharing, engine diagnostics and prognostics, more	Route management, fleet dashboard	Wi-Fi and Bluetooth connectivity for dispatch, management, operational functions; camera; navigation; Android compatibility; over-the-air updates
No	No	No	Yes	No	No	No	No	No
RandMcNally.com or read user reviews at CCJ	RandMcNally.com or read user reviews at CCJ	RandMcNally.com or read user reviews at CCJ	SimpleTruck-ELD.com	Spireon.com	Teletrac-Navman.com	Telogis.com	Zed-ELD.com	ZonarSystems.com

Turning your smartphone into a compliant ELD

BY TODD DILLS

The market-making power of the Federal Motor Carrier Safety Administration's electronic logging device mandate is evident when you compare the chart beginning on page 18 with the original comparison chart *Overdrive* published in August 2015.

Back then, 13 devices from 11 providers were listed, the majority of them offering dedicated-unit ELDs that had long been on the market. Well-known providers such as Omnitracs, PeopleNet, Teletrac, Rand McNally and J.J. Keller populated the chart.

This issue's roundup of 46 devices shows how the December 2015 publication of the ELD final rule has encouraged many parties to enter the market. Though some providers such as ERoad, iGlobal and DriverTech now offer dedicated units of their own, the vast majority of growth has been "bring your own device" units capable of being paired with an operator's smartphone or tablet.

Part of the reason for so many new entrants undoubtedly has to do with the cost of software/hardware development versus the relative ease of bringing software to market for mobile platforms. Of the 46 listed ELDs, 30 are capable of BYOD configuration. Among those, 22 can support both Google's Android operating system and Apple's iOS.

BYOD providers include familiar names such as BigRoad and KeepTruckin. Both companies debuted prior to the ELD mandate as smartphone apps for logging. Now they are capable of functioning as federally compliant ELDs with an added device connected to the engine's electronic control module. Most such devices maintain a connection to the driver's smartphone interface via Bluetooth, though some also offer a Wi-Fi option or use it exclusively.

The vast majority offer their ELDs

Fleet Complete, Geotab and BigRoad are among the dozens of mobile-device-based options for ELD compliance.

66%
Percentage of devices/software solutions included on *Overdrive*'s electronic logging device chart that retain the "bring your own device" option, whether a smartphone or tablet.

3/4
Fraction of BYOD ELDs that are or will be available with both Android- and Apple iOS-powered versions. The balance of devices is Android-only, with the exception being the XRS e-logger from Omnitracs, which also is compatible with some Windows Mobile devices.

56%
Share of *Overdrive* readers carrying a smartphone who use an Android-powered device. Apple's iPhone was the second-most prominent platform, with 37 percent of readers reporting use in the magazine's 2016 connectivity survey.

in a Software-as-a-Service (Saas) model with monthly fees structured to ensure users get the full functionality of the software and subsequent updates, though two exceptions to that rule exist (see "The price of compliance," p. 14).

While some BYOD ELDs include a dedicated data plan with a cellular service provider for the ECM-tethered device that connects to the driver's smartphone or tablet, most do not. Before opting for one BYOD solution or another, be certain that the provider's software is compliant with your smartphone's operating system.

Private equity consultant Jay Dwivedi, studying the ELD market early this year, notes that in addition to ELD providers listed on FMCSA's ELD registry, he found 27 more. "A lot of companies are trying to make a play and get an early start, but the market is not so huge that it can absorb 40 or 50 companies." Dwivedi expects only about a dozen to survive. As this story went to press, evidence of consolidation was on offer with the announcement that Fleet Complete acquired BigRoad, long popular with drivers.

Truckstop.com's uDrove smartphone app was one of the industry's first. It

Smartphone/tablet-based e-logs: Have you tried one of the many apps available to test the ELD waters?

Yes 35%

KeepTruckin **15%**

BigRoad **15%**

Another program **5%**

No, other **4%**

No, but I've used a laptop program **5%**

No, paper only for me **50%**

No, but I've used a dedicated e-log **6%**

OverdriveOnline.com poll

This poll, conducted in February, shows that since *Overdrive's* operational survey conducted in the spring of 2016, more drivers have been getting used to electronic hours recording by using smartphone apps that don't require a connection to the engine's ECM. In the 2016 survey, only 19 percent of operators and small-fleet owners reported using either such an app or an engine-connected e-log.

IMPLEMENTATION AND THE BYOD ELD

DC Transport, a Chicago-based all-owner-operator carrier with 15 trucks, recently transitioned to J.J. Keller's Encompass e-log system, opting to go the BYOD route. Katie Cullen, who's overseeing the implementation, says that once Encompass is fully in place, the company's leased owner-operators will be paying the system's monthly service fee of about $26.

"It made sense for them to use their phones," Cullen says. "At some point, we may supply them with a tablet" for fleet logs and other functions, but for the time being "very little of their data" is used by the Encompass software, she says.

RDS Container Yard Services, a Salt Lake City-based intermodal carrier, uses the KeepTruckin ELD, a BYOD system somewhat similar to Encompass, for its three leased owner-operators and 12 company trucks. The ELD's data demands amount to a "couple of megabytes a month, tops," says RDS' Neal Pollard.

Instead of having a data allowance for drivers, "We overcame that in two ways." One, the employment or lease contract stipulates that drivers must have a smartphone and "be willing to download our software and accept a small amount of data." Two, "we try to keep our drivers a little above industry standard" in terms of pay, Pollard says.

RDS tested the Keller system last year along with KeepTruckin's ELD after drivers at the company made it known they

used the original KeepTruckin app and were impressed with it. That test showed occasional difficulty some drivers had connecting their phones over Bluetooth to Keller's device when starting the day.
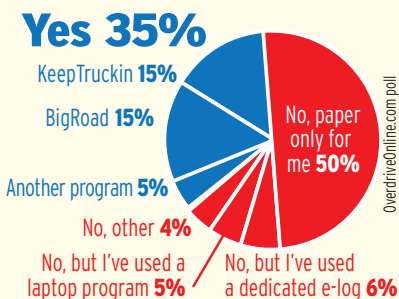
"We heard that wasn't uncommon" with some solutions, Pollard says, "but we weren't having those same issues with the KeepTruckin app." Its ELD now is installed in six new company Kenworth T880s.

Pollard is contemplating selling some of RDS' older trucks and going all-owner-operator for the remainder of the fleet. The leased operators would be required to run KeepTruckin ELDs if their trucks aren't exempt under the ELD mandate's pre-2000 model-year exemption.

Cullen also noted the Bluetooth connectivity issue with BYOD systems in general. Purchasing dedicated tablets for DC Transport's owner-operators might alleviate such problems when starting the day after the phone leaves the truck for a time. Connectivity problems also have arisen in motion, but J.J. Keller's 24/7 hotline and technical representatives have been responsive, just as they were during the initial installation and setup process.

"A lot of times, if [owner-operators] lose a connection, it's back online within 20 minutes," she says. Cullen hopes to have the entire fleet running full-time ELD in July.

allowed for logs and other functions in a single software package for Android, Blackberry and iOS devices. It moved into the BYOD ELD market years ago but recently re-evaluated the product and began its sunset.

Thayne Boren, Truckstop.com mobile general manager, says the company is ceasing uDrove support at the end of June but is committed to helping current customers find a new vendor. That includes plans for early-summer launch of an ELD marketplace that "will be a destination for carriers to find 'vetted' [ELD provider] companies that are likely on a path for success beyond 2019." That's the final year in which previous-generation automatic onboard recording devices can be used without updates to remain in compliance.

"We've had some really good discussions with 15 companies" so far, Boren said last month, "from the largest folks to a few startups," focusing on longevity in the industry, current customer base and, among startups, those inking the kinds of partnerships likely to drive success. "The goal is to have a few different options," depending on the carrier size, from small to large.

Factory-fit telematics work with ELD partners

BY AARON HUFF

Bill Frerichs created a deadline of July 1 to have electronic logging devices operational for his nine-truck fleet. The president and owner of St. Louis-based Frerichs Freight Lines is mulling his options.

"The almighty bottom dollar is not the deciding factor, but it is part of it," Frerichs says. "I am hoping I can get into this for under $35 per truck per month."

One option is to upgrade the logging app Frerichs currently is using for his late-model Volvo fleet. The BigRoad app runs on Android-powered tablets secured to dash-mounted docking and charging stations.

Frerichs also is considering ELD applications from Omnitracs or Telogis, both of which have connectivity agreements with Volvo Trucks to leverage the telematics data that the truck maker already captures for its Remote Diagnostics service. Volvo installs a telematics device in all new vehicles at the factory. The XRS platform from Omnitracs could run on Frerichs' existing Android tablets, and so could Telogis' suite of applications.

Frerichs is looking beyond compliance for systems that also report driver and vehicle performance, which Omnitracs, Telogis and others could provide. "I want to create a driver incentive program to pay a fuel bonus and things like that," he says.

In a perfect world, any ELD software developer could leverage the mileage and engine data from telematics devices that truck makers install at the factory. The data could be accessed by a mobile app through a local Bluetooth connection or be fed to apps installed on a truck's touchscreen infotainment system.

Absent a printer as a backup, the ELD rule requires that logs be viewable by law enforcement officers in a display. For this reason, it might not make sense for truck makers to install a computing device with a non-mobile display, says Omnitracs Director of OEM Solutions Wes Mays.

While most truck makers are not in the ELD business, their investments in remote diagnostics and telematics can pay dividends for third-party ELD providers.

Paccar installs a PeopleNet telematics unit in Kenworth and Peterbilt trucks with Paccar MX-13 engines at the factory. To run PeopleNet's eDriver Logs application, truck owners would need to purchase or lease one of the vendor's driver displays, but they would gain additional value beyond compliance.

"The customer gets access to Paccar's detailed and advanced maintenance services preloaded on the device, along with PeopleNet's fleet management capabilities," says Eric Witty, vice president of product for PeopleNet.
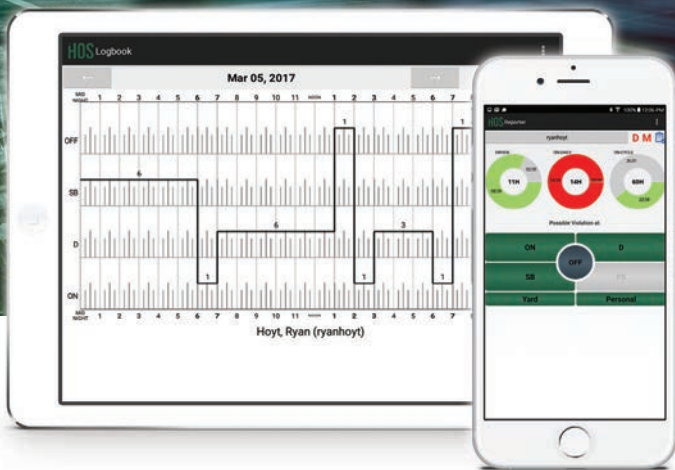
Daimler Trucks North America installs Zonar's telematics unit, the V3, in Freightliner and Western Star trucks at the factory. DTNA uses V3 to power its Virtual Technician remote diagnostics service, allowing Zonar's Connect and 2020 tablets to run the ELD application.

The 2018 Freightliner Cascadia will have a new platform with the capability to integrate with other third-party ELD applications, says Greg Treinen, sales and marketing manager of connectivity for DTNA.

Navistar doesn't install a telematics device at the factory but has agreements with multiple telematics suppliers to power its OnCommand Connect remote diagnostics service. The company launched its own BYOD-style ELD and telematics device under the same name at the Mid-America Trucking Show in March. ELD use enables access to OnCommand Connect's remote diagnostics.

Courtesy of Mack Trucks

Mack Trucks and Telogis are offering a free 30-day trial of Mack Fleet Management Services with Telogis Fleet. As with Volvo, Telogis has a connectivity agreement with Mack, allowing the telematics service provider to use data from Mack's factory-installed telematics device to deliver on a variety of management applications, including electronic logs.

ELD products

AT&T FLEET COMPLETE

Fleet Complete provides fleet management telematics and technologies and has an exclusive relationship with AT&T to provide a nationwide wireless network and an intuitive cloud-based IoT platform. AT&T Fleet Complete Hours of Service automates all recordkeeping and assists with safety compliance without interfering with drivers' actions. The app can alert the driver of upcoming violations at measured intervals and provides the flexibility of overriding warnings and violation alerts with reason codes, such as weather conditions or emergencies. It is available on Android and iOS, requiring no proprietary mobile device, and enabling the sharing of logs with other apps. There is no initial cost. The monthly fee is $36.

At press time, Fleet Complete acquired ELD provider BigRoad. The integrated Fleet Complete BigRoad platform will be offered through North American partner channels AT&T and Telus.

▶ **AT&T Fleet Complete, FleetComplete.com/HOS**

DISPATCHING SOLUTIONS DSI ELOGS

Dispatching Solutions' cloud-based DSI eLogs system is certified on FMCSA's registry. It is available as a dedicated unit or a BYOD solution for Android and iOS operating platforms. Drivers can see log book status in real time, and the back office can view the entire fleet and help manage driver compliance. DSI eLogs also has GPS fleet and asset tracking, transportation scheduling, dispatch, order management, smart forms, alerts, geofencing, IFTA accounting, fleet maintenance and more. The initial cost is $450 to $700, depending on the hardware and its capabilities, with a monthly fee of $20 for ELD service only and $40 for both ELD and GPS capabilities.

▶ **Dispatching Solutions, DSIMobile.com**

BIGROAD DASHLINK

BigRoad's DashLink ELD is designed to be simple, affordable and flexible. The plug-and-play solution connects to the driver's iOS or Android device via Bluetooth, making it easily transferable between drivers and trucks. DashLink ELD connects seamlessly with the BigRoad Mobile App to make HOS compliance effortless; it displays real-time risk notifications to help prevent costly violations. Together, these solutions automatically create compliant logs, saving time on paperwork and getting drivers through their inspections quickly. The ELD automatically syncs with the BigRoad Web App and enables fleets and owner-operators to improve operations by reducing administrative tasks with real-time HOS visibility and fleet tracking. There is no upfront hardware cost — only a low-cost license fee.

▶ **BigRoad, BigRoad.com/ELD**

DRIVERTECH DT4000 REV 7

DriverTech's DT4000 Rev 7 mobile communications device is a dedicated unit with ELD capabilities. The unit also has a front-facing in-dash camera with software that includes video capture of critical events, such as harsh braking; workflow integrations with a transportation management software system provider; integrations with diagnostics and tire pressure-monitoring systems; a smartphone app for drivers to view business processes outside of the cab; and navigation. The initial cost is $799, with a monthly fee of $30 and up, depending on options.

▶ **DriverTech, DriverTech.com**

ECLIPSE RAPIDLOG

Eclipse offers the RapidLog 200 vehicle monitor for electronic logs. The company says it has audited error-free over 1 billion logs for hours of service and trip planning for over 3,000 carriers since 1989.

The dashtop device monitors all vehicle movement using ECM and GPS satellite data. Data can be sent to the carrier in real time or in batches when a driver has Wi-Fi access to reduce or eliminate data plan fees. Most any Android device or Windows laptop can be used for drivers' entries.

The company supports any mix of paper logs, electronic logs, DVIRs, fuel-tax route tracking, live truck tracking and message notification. Further, carriers can gradually convert from paper to electronic logs over a period of time, with single-point integrated reports and audits.

The RapidLog ELD device does not require a cell phone during driving, which eliminates fines where cell-phone use is prohibited; plus, there are no mounting, charging and cable problems. Installation is as simple as plugging in a cable and placing the ELD on the dash; the device can be hard-wired at the carrier's option.

Monthly service costs $14.99 for logs and DVIRs, $24.99 to add messaging and live tracking, $27.49 to add GPS route-recording and $34.99 to add full-service fuel tax preparation.

▶ **Eclipse Software Systems, RapidLog.com**

ELD SOLUTIONS

ELD Solutions provides owner-operators and fleets with simple methods to meet or exceed the ELD rule's minimum standards. Customized solutions to enhance efficiencies range from basic compliance to a full line of features, including telematics, GPS tracking and IFTA accounting. The initial cost is $0 – with no upfront costs for a tablet device, power cord, case, ELD module, set-up or installation – with an opening monthly subscription fee, whether BYOD or a device supplied by the company.

▶ **ELDS, ELDSolutions.com**

GORILLA SAFETY ELD

The Gorilla Safety ELD is a BYOD solution for Android and iOS operating platforms and is certified on FMCSA's registry. The device works as a standalone system or in sync with its mobile app to maintain log book records and store driver HOS inside a personal device. It is available with automatic onboard recording device and short-haul settings and offers IFTA accounting, driver accident reporting, document capture and management, fuel management, custom maintenance management and user permissions. The initial cost is $175, with a monthly fee of $24 and up, depending on options. A labeled version is available for those wishing to offer the product under a corporate identity.

▶ **Gorilla Safety, GorillaSafety.com**
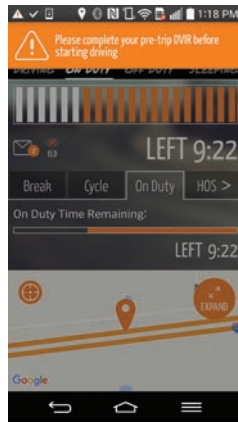
HOS REPORTER

Connected Holdings' HOS Reporter is designed to be a two-in-one driver-friendly system for owner-operators and small fleets. The device includes ELD and full automatic onboard recording device functions that provide e-logs under older regulations that allow for editable logs and less data sent following stops, which can enhance driver privacy and possibly yield fewer citations. It also offers electronic vehicle inspection reports and automated IFTA logging. The subscription includes a GPS device for the truck's 6-pin, 9-pin or Volvo-Mack data port connector. To use the software, download a licensed copy from HOS-Reporter.com and login. Options include HOS

EROAD ELD

The ERoad ELD is certified on FMCSA's registry. It has a driver-friendly display with data transfer capabilities for facilitating roadside enforcement and reducing administrative time. The device stays in the vehicle and synchronizes with the engine to record HOS. Its touchscreen lets drivers view, edit and add notes to their logs and present duty status during inspections. Drivers and fleet managers can monitor HOS records with summaries and reports of on-duty status, rests and resets. Fleet managers also can review and edit logs that drivers can accept on the in-vehicle display. The dedicated unit's Software-as-a-Service platform also provides fuel and weight-mile tax management, GPS tracking, geofencing, maintenance oversight and driver performance monitoring with retrospective event tools. The service connects with ERoad's web-based portal to access up-to-the-minute data, administer users, receive real-time notifications, send messages and view reports. The initial cost is zero with a lease or $215 without one, with a monthly fee of $39 to $59, depending on options.

▶ **ERoad, ERoad.com**

GPS INSIGHT ELD-2000

GPS Insight's ELD-2000 system bundles a GPS tracking, alerting and reporting device hardwired to a ruggedized Android tablet designed with an intuitive user interface. The ELD also offers messaging for drivers and dispatch to reduce phone calls and streamline communications with drivers, as well as navigation to allow management to dispatch audible and visual directions using truck-specific routes for each job to drivers. A web-based management portal is accessible via PC, tablet and smartphone. The initial cost is $650, with a monthly fee of $34.95 and up. Rental options are available.

▶ **GPS Insight, GPSInsight.com**

Reporter-Bluetooth, the lowest-cost option that sends information using the driver's smartphone and data plan; HOS Reporter-Bluetooth/Cellular, which sends information over cellular networks using the driver's smartphone as a display device; and HOS Reporter-Bluetooth/Cellular and Tablet, which sends information over cellular networks using the company's dedicated HOS compliance tablet. There is no initial cost. The monthly fee is $15 (two years prepaid) or $18 (one year).

▶ **Connected Holdings, HOS-Reporter.com**

HOS 247

HOS 247's flexible ELD packages for owner-operators and fleets include free logging devices, a log book app, electronic DVIRs, a web portal for fleet managers, a compliance dashboard, GPS tracking, IFTA accounting and free integrations with dispatch, routing and load board systems. Heavy-duty vehicles (9-pin or 6-pin ports) are supported. The packages work with most 3G and 4G tablets and smartphones; drivers and fleets can use their own or purchase Android devices and data plans from the company. The app connects to the ELD via Bluetooth and displays recorded driving time while automatically calculating available driving hours, required breaks, on-duty limits and required off-duty time. Visual and audible warnings help drivers avoid violations, while the compliance dashboard monitors hours, duty statuses and violations to keep fleet managers informed. The fleet tracking system monitors vehicle locations and provides location history. There is no initial cost. The monthly fee is $17 to $23, depending on options.

▶ **HOS 247, HOS247.com**

ISE FLEET SERVICES EFLEETSUITE

ISE Fleet Services' eFleetSuite is a configurable end-to-end ELD that includes applications for electronic logs, DVIRs, compliance mapping and fuel tax data collection. An in-vehicle interface and a communications channel exchange information between the vehicle and a cloud-hosted web portal. Driver benefits include HOS records; calculations of drive time availability and warnings of impending violations; an integrated DVIR workflow that ensures inspections are performed at the appropriate time; and HOS and DVIR documentation for roadside inspection. Fleet benefits include driver reports that are easily viewed, updated and printed; real-time information that assists in resource allocation and equipment defect resolution; CSA Fatigued Driver and Vehicle Maintenance BASIC scores; and other features. The initial cost is $575, with lease options available. The monthly fee is $24.

▶ **ISE Fleet Services, ISEFleetServices.com**

IGLOBAL EDGE MDT/ JOURNEY8 TABLET

The Edge MDT/Journey8 Tablet from iGlobal is a dedicated unit that is certified on FMCSA's registry. The Edge MDT has a built-in scanner and push-to-talk cellular. When paired with the Journey8 Tablet, a la carte pricing is available for IFTA accounting, driver scorecards and settlements, engine diagnostics and transportation management software system integrations with TMW Systems or McLeod Software. The initial cost is $499 and up, depending on configuration, with a monthly fee of $25 and up depending on options and configuration.

▶ **iGlobal, IGlobalLLC.com**

NAVISTAR ONCOMMAND CONNECTION

Navistar's OnCommand Connection Electronic Driver Log leverages the company's telematics offerings with BYOD capabilities for the Android and iOS operating platforms. ELD capabilities include automatic auditing of remaining time, error help, violation alerts, DVIRs and IFTA accounting. The system also offers full-featured telematics for GPS tracking, vehicle location, geofencing, harsh braking and acceleration detection, idle reporting and breadcrumb trails. Also available are Navistar's OnCommand Connection advanced diagnostics vehicle health reports, fault code severities and fault code action plans. The initial cost is $120 for the telematics hardware, with a monthly fee of $14.95 to $25.95, depending on options.

▶ **Navistar OnCommand Connection, OnCommandConnection.com**

NERO GLOBAL TRACKING

Nero Global Tracking provides ELD and GPS telematics solutions that help owner-operators streamline operations and increase revenue by providing accurate, measurable and timely business insights. The company supports BYOD options and also can provide in-cab hardware, including a tablet, rugged mount and power source. A live map with detailed trip, stop and off-hours usage reporting allows users to plan and organize routes more efficiently and improve productivity, and real-time GPS locations also help improve customer service. Speeding and driver behavior reports and alerts allow for identifying and coaching unsafe drivers to improve safety. Idle reports and alerts help reduce costs, and vehicle maintenance can be scheduled and managed in one place.

▶ **Nero Global Tracking, NeroGlobal.com**

OMNITRACS MCP, XRS

The Omnitracs Enterprise Services platform on the Intelligent Vehicle Gateway is compatible with all MCP models and Omnitracs applications, with flexible connection and integration options. The system offers engine diagnostics, mobile-based weigh station bypass, IFTA accounting, in-cab scanning, truck navigation, geofencing, custom mobile forms, idle-time tracking and integration with transportation management software systems. Driver-friendly features include a large self-dimming screen, intuitive alerts and hands-free functionality. The initial cost is $799 and up, depending on the model, with lease options available. The monthly fee is $20 and up. The BYOD line of XRS products is available on company-certified Android and Windows Mobile devices. Flexible plans are available for fleets of any size. The initial cost is zero to lease and $200 for the engine relay, with a monthly fee of $20 and up.

▶ **Omnitracs, Omnitracs.com**

PEGASUS TRANSTECH TRANSFLO ELD T7

Pegasus TransTech's Transflo ELD T7 is a BYOD solution available for Android and iOS platforms. In addition to HOS compliance, the base plan adds IFTA accounting and a one-year warranty, while the premium package adds vehicle analytics, driver behavior insights and accident detection and reconstruction. Integrations with other services can allow drivers to access load management, document capture, weather overlays and dispatch chat features. The initial cost is $99 for the hardware and harness, with a monthly fee of $25 to $31, depending on the plan.

▶ **Pegasus TransTech, Transflo.com**

RAND MCNALLY

Rand McNally provides devices for owner-operators and fleets of all sizes. All three systems offer transportation management software system integration, IFTA accounting, mapping, analytics and engine diagnostics.

The ELD50 is a BYOD system available for the Android operating platform that also can be paired with the company's TND tablet; the initial cost is $149, with a monthly fee of $15 and up. The HD100 is a BYOD system available for Android and iOS platforms, or it can be paired with the company's TND tablet, and it also offers a cellular modem; the initial cost is $299, with a monthly fee of $20 and up. The TND765 is a dedicated unit that also offers truck-specific navigation; the initial cost is $699, with a monthly fee of $20 and up.

▶ **Rand McNally, RandMcNally.com**

PEDIGREE TECHNOLOGIES POV ELD CHROME

Pedigree's POV ELD Chrome Edition is built on the company's OneView platform and is designed to be an intuitive, reliable and versatile solution that combines a driver-approved interface with fleet manager-approved efficiency, along with included IFTA reporting. The expandable platform offers a full suite of solutions, including trailer, equipment and asset tracking; and tire pressure, tank-level and temperature monitoring. The OneView platform and solutions are built to grow with each customer's specific needs – dispatch and electronic work orders (job management) are common additions – and the company's solutions are designed to enable consistent real-time visibility and actionable information to all appropriate users, including APIs and integrations. Pedigree, which has more than a decade of experience providing ELD-related solutions that maximize driver satisfaction, offers an onboarding program and provides a variety of training and service options.

▶ **Pedigree Technologies, ELDCertified.com**

PEOPLENET EDRIVER LOGS

PeopleNet's eDriver Logs automates HOS tracking while reducing violations and improving driver efficiency and safety. The system provides fleet owners and drivers with real-time information without additional hardware or software. If an HOS violation is imminent, the system alerts the driver. The electronic grid displays updated driver log information inside the cab and at the back office. Fleets can access a snapshot of a driver's profile, including company terminal, trailer and vehicle information. The system also meets state regulations for Texas, California, Florida and Alaska, as well as Canadian regulations below the 60th parallel for automatic onboard recording devices.

▶ **PeopleNet, PeopleNetOnline.com**

SIMPLE TRUCK ELD

Simple Truck ELD is a BYOD system for Android and iOS platforms, with tablet options available. The dedicated logging software is connected to the recording device's interface with the ECM to capture geolocation, date, time, miles driven, duration of engine operation and if the vehicle is moving. The secure app includes standard data displays and transfer processes to help make it easier to accurately track, manage and share records of duty status with safety officials. The software includes provisions to help block data tampering and aid in prevention of driver harassment. The initial cost is zero to lease, with a monthly fee of $19 and up. The company offers a six-month free trial.
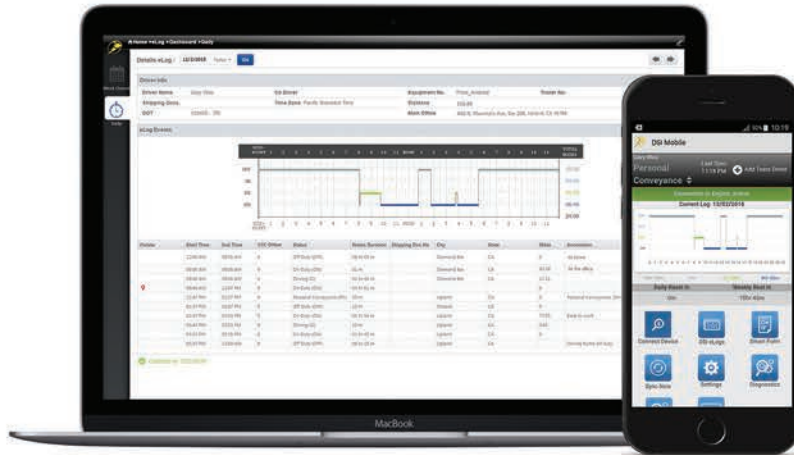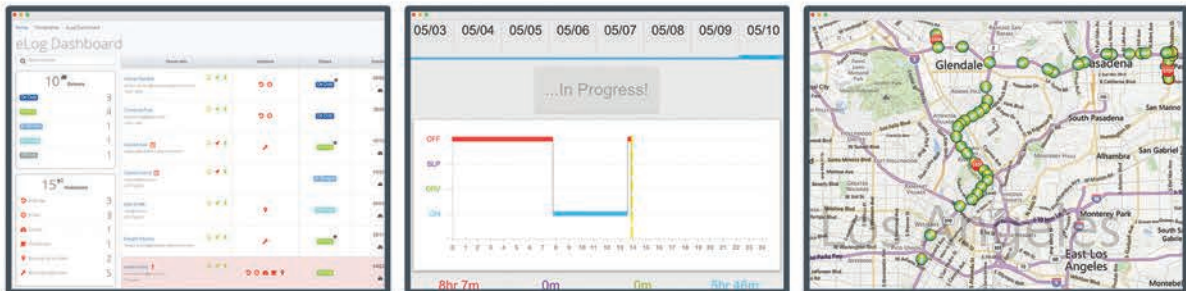
▶ **Simple Truck ELD, SimpleTruckELD.com**

SPIREON FLEETLOCATE FL7

Spireon's web-based FleetLocate management systems monitor vehicle and driver performance and give fleet operators insights into driver behavior and help them reduce fuel costs, idle time, labor, fleet mileage and maintenance-related downtime. FleetLocate FL7 is a BYOD system for Android and iOS platforms that offers compliant e-logs, IFTA accounting, driver safety alerts and reports, driver scores, audible alerts and engine diagnostics. There is no initial cost to lease. The monthly fee of is $26.95 and up, depending on add-ons.

▶ **Spireon, Spireon.com**

TELOGIS COMPLIANCE

Telogis Compliance helps ensure that logs are up to date while supporting federal and state rules as well as local exemptions. The system is designed so that drivers easily can provide HOS information during an inspection without any CSA-related form and manner and driving time violations. HOS duty and driver statuses update automatically, and automatic HOS limit warnings help drivers stay legal; HOS reports and alerts also are available for the back office. The solution offers DVIR compliance capability.

▶ **Telogis, Telogis.com**

ZED CONNECT ZED ELD

Zed Connect's Zed ELD is a BYOD Bluetooth-ready system for iOS and Android platforms. Zed's Bluetooth adapter is compatible with 9-pin J1939 diagnostic ports – both Type 1 (black/gray) and Type 2 (green) – and uses multiple levels of security to connect to Zed's mobile app to capture the required ELD data for FMCSA compliance. For drivers, Zed ELD offers daily certification, HOS tracking, duty status records and DVIR reporting for DOT inspections to maintain compliance. It also offers routing and navigation, including real-time updates on road conditions, closures and construction. For fleets, the system also offers route management, GPS tracking, DVIR documentation and a dashboard. ZED intends to use its open platform to develop additional services. The device is designed for easy installation, and the initial cost is $200, with no monthly fee.

▶ **Zed Connect, Zed-ELD.com**

TELETRAC NAVMAN DIRECTOR

Teletrac Navman's Director fleet management platform tracks assets and collects data for business insights. In addition to reducing the paperwork necessary for tracking HOS, it provides second-by-second information to help carriers reduce operational expenses, identify trends, improve business processes and build a more efficient, safe and connected fleet. In addition to ensuring ongoing ELD mandate compliance as specifications are updated, Teletrac Navman Director HOS customers receive updated ELD mandate compliance specifications and free system installation and training. The system also offers sophisticated navigation and dispatch capabilities. There is no initial cost to lease. The monthly fee is $45 for the e-logs edition.
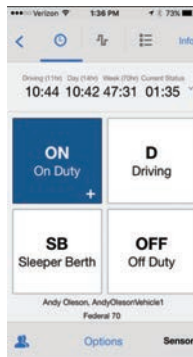
▶ **Teletrac Navman, TeletracNavman.com**

VDO ROADLOG

VDO RoadLog's built-in thermal printer provides an instant copy resembling a traditional log grid for an inspection review. A printout eliminates issues involving transferring log data that otherwise might lead to a driver handing over a cell phone to an officer or having an officer climb into the cab to review an ELD screen. VDO RoadLog ELDs work with VDO RoadLog Office, an online fleet management tool for automated compliance reporting designed for secure data transfers and automatic online record backup. The system also helps automate IRP and IFTA reporting, as well as pre- and post-trip inspections. Optional features include Driver/Vehicle Track & Trace, Load & Trip management, VDO RoadLog Office Advanced and VDO RoadLog Office Premium. VDO RoadLog is available without monthly fees or contracts. The initial cost is $700 or no cost with a lease option, with no additional charges for logs, DVIRs or IFTA data collection.

▶ **VDO Commercial Vehicles, VDORoadLog.com**

ZONAR CONNECT

Zonar Connect is a dedicated ELD-compliant tablet that also offers Wi-Fi and Bluetooth connectivity for dispatch, management and operational functions, as well as a camera, navigation, Android compatibility and over-the-air updates. Connect is connected even when outside of the cab, allowing the driver to submit completed documents and electronic DVIRs to dispatch without returning to the truck. The tablet recharges in its in-cab cradle and integrates with the company's Ground Traffic Control to help provide fleets with better visibility of assets on the road. Pricing for the unit and service fees vary according to fleet size, service plan and options.

▶ **Zonar, ZonarSystems.com**

AT&T Fleet Complete

Driver Detail
CN SD So 7d70hr

Drive Time
8:38

Cycle Time
69:26

Shift Time
8:38

Next Shift Time	14h 0m Available
Last Reset	August 11, 5:02 PM
Last Restart	August 13, 7:09 PM
Deferred Off Duty (None)	

Reliable ELD compliance the easy way

AT&T Fleet Complete's ELD solution is an easy-to-use integrated solution that covers your fleet's ELD compliance from start to finish.

It operates under 20+ interstate and cross-border ELD rules in both, the U.S. and Canada, and provides automated DVIR reporting for quick and easy vehicle inspections. With this solution, all data is secure and easily accessible in the AT&T Fleet Complete portal.

Get ahead of the curve and get your business ELD ready today! Learn more at att.fleetcomplete.com/hos or call us at 1-844-944-0870.

Leading HoS app
This app is your driver's safety and compliance manager that accurately records daily logbooks.

Fast roadside inspections
All critical information is accessible at a touch of a screen, making roadside inspections quicker with minimal paperwork.

Flexibility
Drivers are always in control of the HoS device and can edit logs with a reason code.

Easy reporting
Get a grid view of driver logs and summary reports on drive time, events, and mileage.

Better load planning
Having near real-time visibility on driver's duty status allows for optimal load planning while staying HoS compliant.

MOBILIZING **YOUR** WORLD