Larger fleets have long had the tools to track detention time, but with the spread of ELDs, fleets of all sizes can now document time spent at docks with great accuracy. Some ELD providers and their partners are aggregating ELD data to derive average dwell times at thousands of facilities and making the information available to their customers.

ELD DATA GRAB PART TWO

SEE PART ONE AT OVERDRIVEONLINE.COM/ELDDATA

Todd Dills

HOPES AND HAZARDS IN USING ELD DATA

With wells of data at their fingertips, ELD providers are beefing up offerings to their customers, with potential to reduce wasted time and improve load choices. However, the privacy tradeoffs can cut into an operator's competitive edge. BY TODD DILLS AND JAMES JAILLET

For owner-operators already angered by the intrusive nature of the electronic logging device mandate, the growing awareness of their private ELD data being harvested for others' financial benefit can seem like a further invasion of privacy.

The secondary uses of the data, however, offer some positive returns through new or improved digital tools. ELD suppliers promise a new era of trucking in which location and hours of service tracking, whether in aggregate or individually, enhances efficiency and profits. This especially could be true for smaller carriers that lack the sophisticated telematics and data-gathering systems that larger carriers have long enjoyed.

At the same time, information is power, as the saying goes. With so much data being crunched by so many parties in so many ways, there are hints that new winners and losers will emerge as power shifts among carriers, brokers and shippers.

Reducing detention at the docks

One of the most potentially useful applications of ELD data is trying to mitigate detention time by documenting it precisely.

Transflo, which serves mostly midsized fleets, is among ELD providers working toward that. By integrating its ELD product into its mix of workflow and document management products, Transflo believes fleets can better address detention with shippers, says Doug Schrier, vice president of product.

"Drivers know when they're being detained," says Schrier. "The thing they've struggled with is being able to prove it."

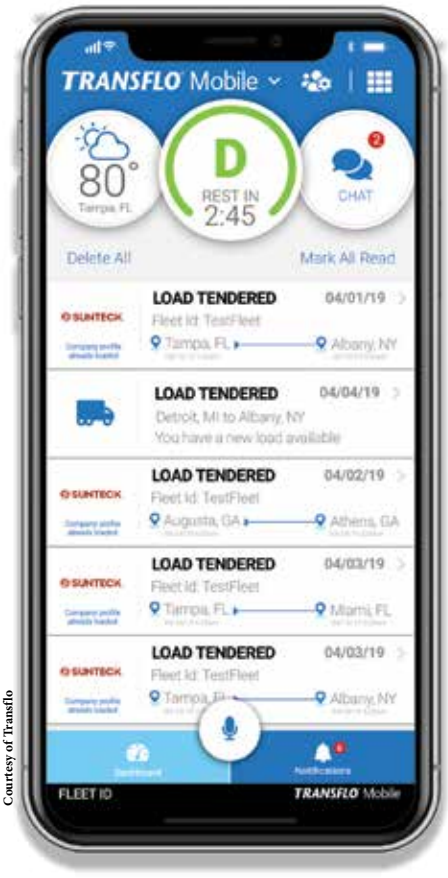
On a broader scale, aggregated ELD data can enable a fleet to make better decisions in choosing loads by avoiding known times and locations

of lengthy detention.

"When there's transparency around every dock and what its detention performance is, it's going to be a huge benefit to drivers," says Daniel Pickett, a data analyst for FreightWaves' Sonar platform. Today, the company doesn't offer that granular level of detail about individual shippers and receivers. Its Sonar data analytics platform, though, now shows dwell times aggregated by region. The feature is built in part on access to carrier and ELD suppliers' anonymized ELD data.

Drivers could glean whether opting for a 10 a.m. appointment instead of 8 a.m., or choosing a different weekday, could reduce their wait, Pickett says. "The difference can be very meaningful, in what we've studied," he says. As Pickett suggests, anonymized, aggregated information thus can be retraced to an individual source by data-science teams within the ELD supplier in key ways to benefit those supplying the data.

Jon Gavrilyuk, technology/billing manager for the owner-operator-heavy hotshot fleet Safe Way Carrier of Springfield, Missouri, sees good potential for a new detention measurement feature from the carrier's ELD supplier, KeepTruckin.



Courtesy of Transflo

Though Transflo uses ELD data to build out its suite of services, centralized mostly within its Transflo Mobile app, ELD data also has enabled tools that make it easy to share detention information with shippers toward improvement, says Doug Schrier, a Transflo vice president.

The company uses aggregated and anonymous carrier data to identify and analyze detention times at shipper/receiver sites. Being released this summer is KeepTruckin's Facility Insights feature that Gavrilyuk likens to Yelp for evaluating dock efficiencies.

The tool, based on geofencing around docks, is free to users of the KeepTruckin ELD, whose historical location and time data underly the tool. Once a shipper or receiver reaches at least five visits by five different carriers, KeepTruckin adds the identified facility to its platform so its ELD customers can see its average times.

Detention or "dwell" time, the latter used sometimes to refer to the entire time spent at a facility, also is in the big-data crosshairs of a variety of third-party technology providers. These include load tracking/matching provider Trucker Tools and Truckstop.com with its partnership with the driver-friendly Dock411 app for multifaceted dock information.

First steps in carriers wielding their own detention data

For most owner-operators, detention times at shippers and receivers haven't improved, at least since the ELD mandate came into play Dec. 18, 2017. *Overdrive* polling early this year showed more than 80 percent of respondents had either noticed no perceptible change in detention or said it had gotten worse.

Yet since the advent of location tracking, which pre-dates ELDs, detention has been monitored and tracked by larger carriers in various ways. One large-carrier example shows how this data, instead of simply just proving detention times, can be used to analyze its full cost.

Maverick Transportation, which runs 1,700 trucks, has created an internal cost analysis system to evaluate customers. President John Culp explained the system during a panel at the Truckload Carriers Association's annual convention in March.

The system uses time, location and other data to measure direct and overhead costs such as loading, unloading and transit times to calculate an operating ratio for each load and customer by lane.

He noted one customer asked the Little Rock, Arkansas-based fleet to provide a data feed for the estimated arrival time of its shipments. It factors in traffic, scheduled or unscheduled maintenance events and ELD/telematics-derived data such as vehicle location and speed and the driver's hours of service.

— Aaron Huff *contributed to this report.*

Like KeepTruckin, ELD supplier Geotab, valuing users' detention data, is looking for the "best way to infuse that within our ecosystem," says Mike Branch, vice president for data and analytics. Without access to user trip data, he adds, such tools would not be possible. That's part of the reason Geotab's service agreement, like those of certain other ELD providers, requires users to consent to internal use of anonymous, aggregated data toward building new products.

Leveraging location, hours for optimal freight matching

Truckstop.com plans to use ELD hours data as a way to help put load offers in front of carriers that have drivers who not only are close to the load but also have sufficient on-duty hours, says Brent Hutto, chief relationship officer.

"Because the broker doesn't want to be liable for the hours of service" information, he says, third parties such as Truckstop.com can be the facilitator of such data, employed in a "predictive algorithm that will propose the best freight to the carrier."

KeepTruckin, which is introducing a load board later this year, also is planning to bring ELD-derived hours and location data to bear in matching carriers with loads from brokers and shippers, says Shoaib Makani, chief executive officer.

The technology platform from FleetOps that underlies BigRoad Freight already is doing this to an extent on a smaller scale. ELD provider Konexial offers the GoLoad matching service in partnership with a shipper software provider.

Tracking-technology companies such as Trucker Tools and Macropoint likewise have built freight platforms and ELD-provider integrations that have some similar predictive-type capabilities, as reported in Part 1 of this series. They're all promising better utilization of trucks, with less time spent planning and negotiating individual loads.

Truckstop.com, which requires customer consent for use of its data, has long aggregated anonymized truckload rates data from its load board, transportation management software providers and other partners. It then serves it back to customers and the general public through media and their own users' software as market indicators, Hutto says.

Two ELD providers with whom Truckstop.com is building a data connection for carrier customers are KeepTruckin and BigRoad. "In technology, you can be competing with and cooperating with the same entity" at the same time, Hutto says. That includes KT's own load board, planned for release this year, and long-extant BigRoad Freight.

To an extent, you could say the same of independent owner-operators and small fleets working with both brokers and their shipper customers. Yet most aren't in the same position regarding brokers' customers. Back-solicitation prohibitions, effectively noncompete clauses, in broker-carrier contracts are written to prevent carriers' contacts with shippers from leading to active carrier solicitation of that shipper's direct business.

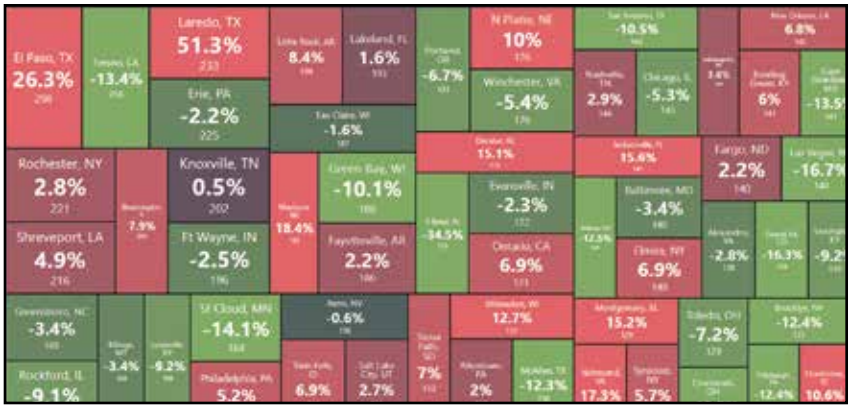
As Gavrilyuk explains, "As a carrier, we can't go to a customer and say, 'Screw the broker' " and do business directly with the carrier, which is a breach of contract. Though adherence to such clauses isn't universal, plenty of carriers honor their contracts, Safe Way included, Gavrilyuk adds.

Aggregated data as a tool for advocacy

Some research organizations and even ELD providers are using aggregate ELD data to advocate for regulatory change or other industry purposes.

The American Transportation Research Institute leaned on ELD data to package a research report advocating for greater hours of service flexibility last year. The group studied drivers that traveled through Atlanta's interstate interchanges, using, with permission, their ELD information. The study showed how long they sat in traffic — and how they could have avoided heavy congestion if they'd been able to pause their 14-hour clock and go off-duty until traffic lifted.

ATRI late last year asked carriers



This is excerpted from a chart that shows average dock wait times in minutes in 130-plus U.S. markets and the percentage change from the prior week. The full chart goes from the highest times in the upper left (in this case, El Paso, Texas) to the lowest in the bottom right. The service depends largely on access to ELD data from carriers and ELD vendors. It's one of many freight analytics provided by Freightwaves' Sonar platform for fleets and owner-operators.

to share their ELD data for more general research purposes, hoping to "collect and warehouse" the aggregated data to add "scientifically valid analysis" to studies it undertakes.

ELD data "can provide a wealth of insight and research support to our industry," said Andrew Boyle, co-president of Boyle Transportation and an ATRI board member, in October. "But we clearly need a trusted third-party facilitator to manage and monitor how the information is used. ATRI is uniquely suited to serve that role. In the right context, ELDs can provide the real-world data needed to guide future regulations and initiatives."

KeepTruckin's work to geofence shipper locations to track dwell time goes back years. In November 2017, the company launched a signature campaign to petition the U.S. Department of Transportation to examine ELD user data and grant a two-hour extension to the 14-hour on-duty maximum to drivers detained for more than two hours at a shipper or receiver. Company data showed such detention happened on average seven times monthly for KT ELD users.

The company also was able to document an increase in speeding incidents after two-hour-plus detention. It was presented as evidence of a hurry-up effect inherent in driving periods following undue delays.

While "we never got an official response" from the agency, says Makani, the petition "was definitely circulated there, and we do now have a line of communication with the agency."

Predictive maintenance and other benefits

Aggregated data from users in the network of the Geotab telematics supplier has enabled some predictive maintenance capabilities. As of late last year, its ELD was used by around 4 percent of readers of *Overdrive* and its sister fleet magazine, *CCJ*.

One example of predictive analytics based on ELD data is being able to forecast when a battery is likely to go bad.

One recent addition is a "data analytics product that allows us to look at battery failure," says Dirk Schlimm, executive vice president. "We can tell the customer, 'It looks like you need to change your battery,' " Schlimm adds.

Such a predictive tool, deployed around other components, could help smaller carriers refine maintenance scheduling and avoid breakdowns without big investments in staffing to monitor data from truck ECMs, Schlimm says. With its ability to aggregate data and provide insights based on "more than a million vehicles," including automobiles and heavy-duty trucks, Geotab sees maintenance-program value as high for its small fleet users.

"An individual owner-operator receives a powerful analytics tool" that's well more than just a fault-code analyzer/reporter or a tracker of individual vehicle data, he says.

Konexial, provider of the My20 ELD, touts its own GoLoad freight-matching platform as a "value-added service." The same goes for the company's GoFuel program, which provides discounts on fuel and tire purchases, among other benefits.

To enjoy these discounts, often available only to larger fleets, operators must opt in to share ELD data for aggregation to allow the programs to function.

"We believe owner-operators and small carriers should be using their data for their own benefit, to make more profit," says Ken Evans, founder and head for Konexial. "There's a concrete benefit to allowing your data to be used."

In some instances, says Evans, operators can save hundreds of dollars per load via the two platforms. That's based on the average 25 cents-per-gallon savings via GoFuel and the shipper-direct freight available on GoLoad. Konexial is not operating as a broker, but built its system in partnership with a transportation management software platform used by shippers.

Geotab's also built what Schlimm colloquially calls a "pothole detector." It delivers insights not on individual potholes but on the condition of particular road segments.

The tool is not for sale, he says, but is being made "available to public sector partners" such as cities or transportation authorities. It's based on analysis of patterns in swerves and other data pulsed from an updated accelerometer in the Geotab device.

WHEN SHARING YIELDS TOO MUCH INSIGHT

Safe Way Carrier began working with broker One Point Logistics about a year ago, says the fleet's technology/billing manager, Jon Gavrilyuk. A short time after that, he began to notice "a lot more focused freight from different areas around the country," he adds.

He thought it might be a benefit of the fleet's growing relationship with OPL, with shared location data from the fleet's KeepTruckin ELDs enabling the broker to better serve the carrier.

What Gavrilyuk didn't know was that KeepTruckin itself had acquired OPL at a time that roughly coincided with the uptick in that "more focused freight."

Letting its acquired brokerage use its customers' ELD data effectively put KT in a position of competition with its own ELD users, who generated the data, or their brokers. KT CEO Shoaib Makani defends the move as critical to getting the data that ultimately will help customers in fighting detention or getting optimized load offerings.

Situations such as this hint at how the possession and use of massive amounts of data can change traditional balances of power in spot market rates and negotiations.

FreightWaves' Daniel Pickett acknowledges the potential for carriers' information to be used against them in rate negotiations, should brokers or shippers be able to establish the carriers' operational patterns.

For instance, he says, assume an owner-operator wanting to return home to Dallas for the weekend is trying to negotiate a Thursday pickup for a load from Chicago to Dallas. Brokers "could bargain harder with you because they know you won't have to deadhead if you wind up near Dallas."

He hasn't seen that occur, he says, "but that certainly is the risk if you're using apps that can track you, whether it's an ELD or a brokerage app. You do need to think about the patterns they can build on your data."

Brokers also have expressed concern about ELD data being used to tilt the market against them.

Jeff Tucker, CEO of Tucker Company Worldwide, admits the sudden widespread nature of ELD data "scares the daylights out of me." He sees distribution of ELD data as skewing the market unfairly.

Tucker's concerned with "the explosion of IT and tech startups who are taking that data and creating their own little marketplaces with it." Such companies are "taking part of my data and part of the carrier's data – which is really private between me and my carrier – and they're putting it out to the market and putting a value on it and making money off of that data. That's without my permission and without the carrier's permission."

Courtesy of KeepTruckin

KeepTruckin's Facility Insights tool will feature average dwell times for thousands of shipper/receiver load locations, gleaned from ELD users' data. The ability for users to review such facilities is set to follow.

KeepTruckin's user agreements, like those of many ELD providers, ask customers for their permission to share anonymized ELD data or use it internally to develop new products. Customer permissions, though, had no bearing on the acquisition of OPL, which wasn't announced during the first six months of ownership. Gavrilyuk learned of it only after KeepTruckin made it public in April.

Also at that time, KT announced its coming Facility Insights tool, which uses ELD data to help its customers gain critical information about detention times. The company also touted a freight marketplace it's calling the Smart Load Board.

At that point, KeepTruckin had begun to expand the brokerage. The company relied on a variety of resources, including its facilities detention measurement tool built with carrier data, to grow OPL.

A KeepTruckin ELD user, Hallahan Transport owner-operator Rob Hallahan, based in La Crosse, Wisconsin, said KT's use of carrier data for six months before announcing the broker acquisition "sounds like a form of insider trading."

To ease such concerns, Makani says the company might create a data-share wall between OPL and the central KT team upon this year's release of the company's load board.

"We do want this to be an open platform," he adds of the load board, without preferential access for the OPL brokerage.

Makani sees the brokerage, the detention tool and the load board, as well as the data shared among them, as interrelated in giving KT's customers leading-edge tools.

He acknowledges it's an open question as to whether brokers will be willing to participate in a service whose developer also happens to be a competitor of theirs. But when

KT's load board is launched, he says, OPL will operate just as any other participating broker, with access to the same data those brokers have, he says.

"We couldn't have built this load board and made it a great experience unless we were moving freight," Makani says, which necessitated the purchase of OPL.

While aggregated ELD data can benefit industrywide improvement efforts and regulatory developments, some observers worry that putting trucking trip data in the hands of governments, as the Geotab company has done toward assisting in road improvements, also could carry some downsides, including an impact on competition.

A recent *Wired* story showed how the city of Los Angeles built a system under which scooter- and bike-share providers are required to share trip data with the city. The city's plans were to anonymize the data for any public consumption, and to prohibit sharing the data with law enforcement unless required by subpoena. Other cities adopted similar rules, aiming to control congestion of such vehicles.

Privacy watchdogs and ride-share companies such as Uber and Lyft are fighting the L.A. rules. Their worries: the privacy implications of relying on governments to anonymize data, a slippery slope of regulation, and exposure of intellectual property underlying their operations.

Truckers also have been concerned over how much of their location data is being made available. ELD providers "can already follow you into *your* customers" by reidentifying data around facilities, wrote *Overdrive* reader Jeff Pearson, commenting on Part 1 of this series. "What's next, the cops can sit at their office writing you speeding tickets?"

Geotab executives say they are aware of the sensitivity of data when it comes to market competition.

Some large cities' interest in trip data from shared vehicles, such as scooters and bicycles, shows how governmental entities could begin to mine ELD data that records truck trips. Some observers worry that exposure of certain data also could expose the systems that gather it, compromising carriers' competitive positions.

In a 2017 *Overdrive* interview with Dirk Schlimm, Geotab executive vice president, he emphasized that competitive issues could be of greater importance than individual privacy issues when it comes to business data. In Geotab's internal deliberations over what tools to develop and with whom to share them, it's a key consideration.

"We're asking that question first," Schlimm says. " 'Is this a benefit to our customers?' "

A backlash over the use of private data by service providers has been brewing since long before the ELD mandate, says Kenny Lund, vice president for ALC Logistics. His company also produces a transportation management system for shippers, whose data it keeps walled off from its principal business of truckload brokerage.

Information technology companies are "blatantly pushing" to get truck data and profit from it, he says. "My prediction is that truckers will ultimately say, 'No, I'm not giving you that information.' But also, shippers and brokers will realize that tracking tractors and drivers is ultimately problematic for them, too."

Some of the third-party logistics providers and tracking-technology providers used by Maverick Transportation's shipper customers are "asking for all our data, but we are not giving it to them," said President John Culp, speaking at the Truckload Carriers Association annual meeting in March. "We still feel that for the relationship we have [with the customer], to provide service, we need to protect our data."

Generally, however, there are no organized efforts pushing against the issue of liberalized ELD data use. Considering that the information technology industry has moved the boundaries on privacy, and that the Federal Motor Carrier Safety Administration has taken a soft stance on regulating ELD data, such efforts may be hard to muster.

— Aaron Huff contributed to this report.