The Reality of the Connected Truck and Competition

How smaller haulers can use data and information to level the playing field.

Connected Collections™

3rd EYE
a DOVER company

SOFT-PAK™
SOFTWARE SOLUTIONS
a DOVER company

HEIL®
a DOVER company

Helping fleets make better decisions, faster.

REDEFINING WHAT IS POSSIBLE FOR WASTE FLEETS

With improvements in internet connectivity [5G] and more data moving to the cloud in less time, end-user expectations on *what they can do with data* are becoming more immediate. In other words, fleet owners want *comprehensible information* at their fingertips in real time that helps them better run their business. Further, fleet owners' attention spans are being taxed with the need to digest complicated application dashboards, along with balancing their drivers' in-cab stimuli to maintain safety and productivity. Today's fleets also require much better connectivity with their end users - specifically with new subscriptions, more accurate billing and real-time route and asset oversight.

Using that as the backdrop of what is currently viewed as "normal fleet operations", the notion of introducing 'connectivity' to an already tech-saturated market segment might [at first] fall on deaf ears. That is until a fleet owner is acquainted with the notion of a *truly connected truck and the potential of what it brings to a fleet's safety, productivity and its bottom line.*

At first blush, the word "connectivity" has different meanings for different people — so for sake of clarity — this author defines connectivity as: the ability of the asset being digitally 'connected' to their fleet's back office to facilitate routing, customer service, and billing; connected to their maintenance ERP system for real-time/near real-time maintenance assessment of both chassis and body; and connected to dispatch to track the vehicle's location and route productivity (which provides the basis for more accurate pricing of services). Finally - but of primary importance, — monitoring the asset's safety and driver's environment are also key components of connectivity.

> *"Modern refuse collection vehicles can generate up to a million data points per day. The importance of deciding how to use that data to provide meaningful information-based reports is critical."*

Currently, a modern refuse collection vehicle might have four different cell services in their truck: one each for safety, routing, engine monitoring, and yet another for positive service verification - each with its own subscription cost and cellular connection. This can be further complicated by multiple

monitors inside the cab, wiring (installation) complexities and less-than intuitive processes that often times fall on the vehicle's operator to manipulate – in addition to their primary responsibility of safely and efficiently driving a large RCV through crowded neighborhoods or commercial properties to pick up trash.

DATA IS FUEL - INFORMATION IS POWER

Enter Environmental Solutions Group [ESG] and its Connected-Collections™ Digital Strategy. With SaaS modules like Verif-Eye™, Optim-Eyes®, Certif-Eye™, Magnif-Eye™ and 3rd Eye® Safety, fleet owners can have reams of information at their fingertips to truly help them make better decisions, faster. All of this can be accomplished over one cell connection.

ESG Vice President of Regional Sales, Eric Monsen, understands the heavy lift - and the payoff at the end for fleet owners who want the ability to act upon the information provided by their vehicles.

3rd Eye® Connected Collections™ Modules

VERIF-EYE™   OPTIM-EYES®

CERTIF-EYE™   MAGNIF-EYE™

"Data is all around us - but without converting *data* into meaningful *information* that can benefit the fleet owner - it becomes numbers on a screen and nothing more," said Monsen. "The system that we've engineered is based on reporting 'exceptions', meaning our systems are smart enough to begin looking at a fleet's operational data - and knowing *when* to report - based on parameters - or exceptions - that have been delineated by the fleet owners."

Monsen said this type of data collection then progresses into reports based on this exception data being *converted to comprehensive information* and ultimately customized reports that readily make sense to fleets. "We started by providing safety data that fleets wanted to help them better handle driver coaching events, such as hard stops, cell-phone use, and distracted driving - as well as post-incident fault mitigation," said Monsen, adding "it was eye-opening when fleets began to look at data revolving these types of behavior - and how fleets used that quickly to improve their operations."

Monsen said that smaller fleet owners have traditionally refrained from taking advantage of these types of technologies in the past - because of the expense. "Before **3rd Eye**, these types of programs usually required a well-equipped IT department - whose overhead costs had to be leveraged against a very large fleet to achieve an ROI that would pass the muster of generally conservative CFO's." With the advent of **3rd Eye** Artificial Intelligence [AI], machine learning, and next-generation software development, the cost and complexity of these systems are now well within reach of smaller haulers - who can then use the information to run a safer, more productive,
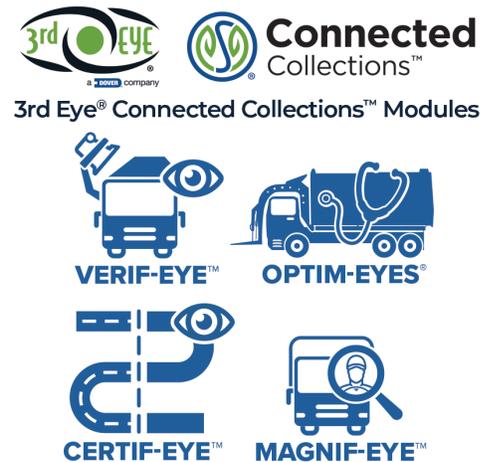
and ultimately more profitable operation. In short - it levels the playing field and allows smaller fleets to compete with the larger national fleets and larger budgets.

One such fleet was Pennsylvania-based Leck Waste Services, who approached 3rd Eye® in 2018 seeking a program to provide better coaching for drivers who exhibit behaviors they wanted to call attention to - to reduce the number of accidents as well as practices that were unnecessarily hard on their equipment.

"At Leck, we were able to realize a 25% savings in insurance cost by implementing **3rd Eye** Mobile and using the system to drive coachable events from 157 events per month when we started - down to less then 10 events a month," said Leck Waste Systems President, Jason Leck. "**This allowed Leck Waste Services to see a six-figure return on annual insurance costs in their Waste Captive insurance program.**"

USING CUSTOMER DATA TO VALIDATE CONNECTED-COLLECTIONS

With the collaboration between ESG and Leck established, **3rd Eye** engineers and Leck management began to look at additional data that could be converted into meaningful information that would help them run a more profitable, more productive operation - while maintaining an atmosphere of uncompromised safety. One of these areas was Commercial Front Loader overages - the negative impact it had on Leck's bottom line - and the missed opportunities for upselling - that were not fully realized until the Verif-Eye™ Connected-Collections positive service module was introduced to Leck.

"When **3rd Eye** came to me regarding how I was handling my commercial overages, at first I didn't know how to respond," said Leck. "I mean we knew that overages were occurring - and we had our drivers taking pictures with their Mobile-Pak™ tablets of those containers that were overflowing. We estimated we had about 2-3% of our commercial stops in some type of overage situation."

When a fleet owner looks at the true anatomy of a scale-house ticket and then backs out the *scheduled* revenue generated from the route, versus the *actual* tipping fee charged based on the tonnage that crosses the scale - the true impact of overage becomes clear - and it took Leck by surprise.

"Our eyes were opened pretty quickly when Verif-Eye identified that we actually had 8% overages - which made us realize we needed something that captured overages automatically - allowing the driver to focus on servicing customers. Bottom line, the additional 4-5% we didn't account for - was coming out of our pocket," said Leck. "Verif-Eye™ also provided us with video evidence of those repeat offenders - as well as the historical data to go back to those customers to either increase

the size of their container or the frequency of their pickup." "In the first month we were able to drive $10,000 to the bottom line by right-sizing customers and by capturing insight to customers accounts that were decreased due to the pandemic. That money fell directly to the bottome line, and allowed our company to right size our customers' needs during the post-pandemic uptick."

> *"In the first month, we were able to drive $10,000 to our bottom line...."*

USE YOUR NUMBERS -SEE YOUR REVENUE POTENTIAL

To help ESG sales teams better communicate this to end users, a simple online calculator has been developed to allow fleets that run commercial front loaders - to assess what their potential revenue could be if they captured overages - *using their own data*.

"Given the response we've received after running the Verif-Eye™ Commercial Front Loader Overages calculator by a few of our customers, it's pretty clear that pictures are worth a thousand words - or in some cases - potentially hundreds of thousands of dollars, depending on the size of your fleet," said Monsen. "When you have customers using their own data - and then seeing what the potential is - it becomes a great way to introduce Connected-Collections™ - as the information we're providing them lives up to our mantra of *helping fleet owners make better decisions, faster*."
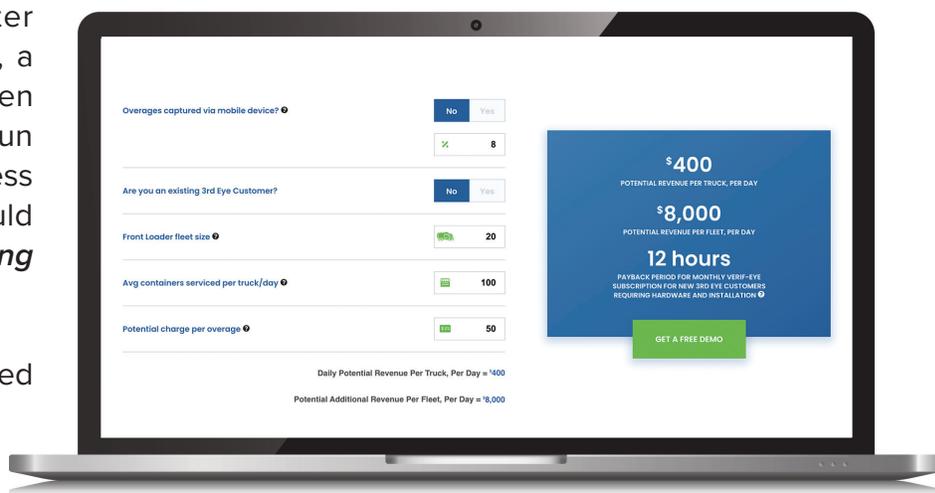
The information collected from a customer's first exposure to the calculator is saved - and then compared to data collected during a full four-week **Verif-Eye** demo on a customer's route. Once a customer sees the actual overage data pulled from their route compared to what they originally estimated - the potential opportunities become very clear.

"We have customers who are running overages of 14%," said Monsen. "Without the ability to capture overages and charge back to their end users, the hauler would be upside down in terms of overall profitability. Now these customers have the information they need to work with end users to provide better service while get paid for the efforts."

FRONT END FOR SHOW - BACK END FOR GO...

But **Verif-Eye** is only as strong as the back office systems needed to collect the information and quickly and accurately interact with the end user - while also allowing dispatchers and accounts

payable personnel to use that information to strengthen customer relationships. Enter Soft-Pak™ and the back office systems powerhouse that ties all of the Connected-Collections™ digital tools together and allows haulers to get stickier with their end users.

"Prior to the **Soft-Pak** acquisition, the **Connected-Connections** overall offering had a few gaps," said Monsen, adding "customers were asking us to add turn-by-turn navigation, better customer-facing billing, more intuitive routing options and a flexible interface to allow haulers to better interact with their customers."

Brian Porter, **Soft-Pak** President, believes the acquisition of **Soft-Pak** by Environmental Solutions Group in early 2020 filled those gaps immediately and propelled the new **Soft-Pak**/3rd Eye® offering as the one to beat.

"From the earliest discussions of the acquisition - we saw the technological power that ESG brought to the table - and we were excited by what the possibilities could be once we joined forces," said Porter. "When we saw the **Connected-Connections** strategy laid out, we immediately knew that Mobile-Pak™, Map-Pak™, and the in-cab tablets would provide the 'connectivity' that fleet owners were demanding. The simplicity of the joint **3rd Eye**/**Soft-Pak** system combined with **Soft-Pak** strong back office software is something that fleet owners really need

to see to believe," said Porter, adding that the release of Version F of their software introduces **Soft-Pak** customers to the reality of **Connected-Collections**.
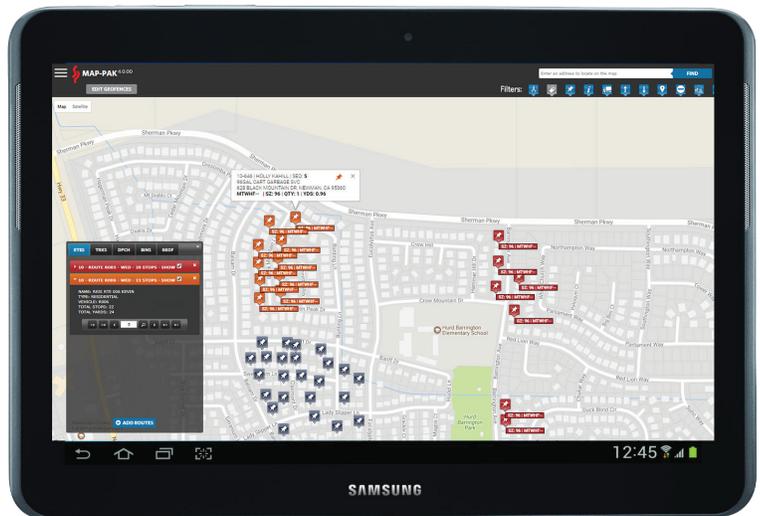
WITH OPTIM-EYES™ - WE'VE GOT YOU COVERED

Optim-Eyes is another Connected-Collections offering that fleet owners are excited to know more about and one that increases a fleet's productivity while lowering overall operational costs. The **Optim-Eyes** module provides exception-based maintenance alerts to shop mechanics for various chassis systems - as well as a growing list of Heil® body systems.

"**Optim-Eyes** is like having an onboard mechanic 24/7 that is monitoring a fleet's assets, notifying them when it has sensed an anomaly - or when the vehicle is operating outside of conditions **they** have specified," said Monsen.
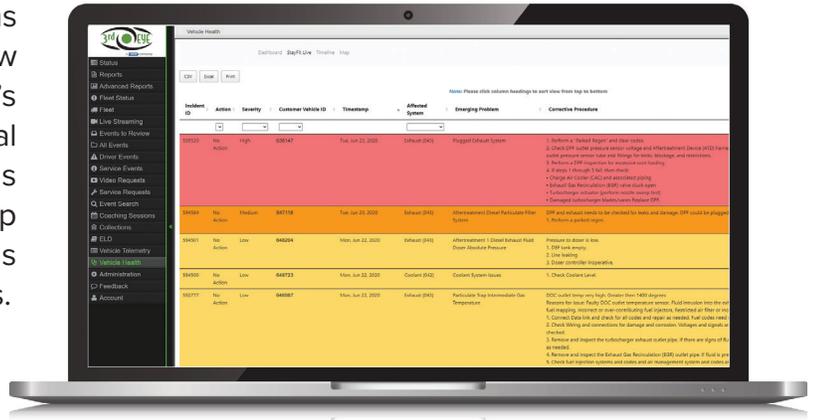
"When you look at the cost of a modern refuse collection vehicle - and then compound the cost of that asset when it's brought down by a mechanical failure - it's eye opening." Monsen pointed out that with **Optim-Eyes** and the predictive / prescriptive nature of the alerts - being notified of a potential problem - sometimes two -to- three weeks ahead of time - can be worth tens of thousands of dollars when compared to what that vehicle would cost being down for weeks following a catastrophic failure.

Further, with **Optim-Eyes** employed in a fleet - increased uptime with their front-line RCVs allows fleet owners to reduce their spares - which on average - make up about 12% of current fleets. "**Optim-Eyes** alerts a fleet's maintenance team of chassis and body systems that are not functioning correctly - which allows mechanics to bring the vehicles in for scheduled maintenance - often times fixing the problem before it becomes serious," said **Optim-Eyes** Product Manager, Brian Ham. With a fleet healthy, the savings represented by reducing unneeded spares can be substantial.

> *"Increase uptime of front-line RCV's and reduce your spares which make up about 12% of current fleets."*

"When we look at the potential of **Optim-Eyes**, we talk in terms of 'the *Art of Possible*,' said Ham. "This technology has such a long runway - and a lot more body data that can be captured and analyzed for predictive/prescriptive failure alerts in the future."

CONNECTED COLLECTIONS LEVELS THE PLAYING FIELD

Vehicles are getting more and more advanced in their systems and **Connected Collections** by ESG provides fleet owners - big and small - with technologies that previously were only viable to larger fleets with deeper pockets.

"At the end of the day - we have a much better understanding of our fleet's operational cost and overall readiness - thanks to information provided by Connected Collections™," said Leck. "We have added tens of thousands of dollars to our bottom line through improvements in operational safety, controlling commercial overages, and identifying and correcting maintenance issues before they become a problem. That allows us to better serve our customers - which strengthens our relationships with our end users while allowing Leck to compete with larger national fleets."

PUTTING THE INFORMATION TO WORK FOR YOU

At the time of this writing, being able to provide fleets with operational information is paramount. The question that many fleet owners have is, "how do I put this information to work for me?" And that is also one of the core elements of the **Connected Collections** digital offering – informational flexibility.

Modern business intelligence software applications like Microsoft BI and Tableau® provide fleet owners with cutting edge tools that transform the data provided by a connected fleet into meaningful reports that can be used to make key operational decisions.

"If you have the means to quickly *and accurately* access your fleet's information in a format that helps you make better decisions to run your business, you're walking down the **Connected Collections** pathway," said ESG President **Connected Collections** champion, Pat Carroll. "We've created a platform that allows fleets to take back their business by helping them to make better decisions – faster."

For more information on **Connected Collections** by ESG, contact your local Heil®, Soft-Pak™ or 3rd Eye® sales representative - or visit any of the ESG websites listed below.

www.heil.com
www.soft-pak.com
www.3rdeyecam.com