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How to Make Data Work For You

Part 1: Where to start?

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Transservice, which runs over 24,000 pieces of equipment, uses data for everything from analyzing spec'ing to meeting customer needs. *Photo: Transservice*

What can data do for your company? "It really comes down to what are you going to do to understand your business better internally," says Tom Poduch, director of logistics design for Transervice. "First, how are you going to continue to make people more productive and make operations more streamlined. Second, how you are going to service your customers."

The New-York based company owns, operates and manages more than 24,000 pieces of equipment from 126 locations in its full-service leasing and dedicated contract carriage business. It has used onboard computers and the data they can provide for a long time.

Some of the things it can use data for, Poduch says, are to learn if it's spec'ing equipment right; if it's meeting customer service goals and if not, why; preventing downtime by predicting when parts are likely to need replacing; making sure perishable products are moving through the cold chain properly; how to better retain drivers; improve fuel economy and route efficiency; deliver real-time updates to customers; and more. It uses Bolt System fleet management and freight tracking software as well as TMW System software to accomplish this.

"Every truck you buy now is a data warehouse by itself," Poduch says. Data, he says, "is probably the most valuable tool you have. You want to make sure it's accurate, it's complete, that it tells a story that ultimately results in value."

Or, as Transervice executive vice president Joe Evangelist puts it, "It's never the what, it's the why."

While crunching data is nothing new, the sheer amount of data available today is crushing.

 "If you go back maybe 10 years, a lot of customers were saying, 'Give me all the data and I'll do all the work," says Randy Morgan, COO of Comdata. "So we tried to get customers more and more data. But I think they got so much, it almost paralyzed them."

Brad Taylor, vice president of data and Internet of Things at telematics provider Omnitracs, points out, "we put out literally gigabytes of data a month even for the most basic truck." However, he adds, "The industry focus has shifted from capturing billions of data points to helping improve fleet decision-making. For fleets, this means not just getting data, but determining actionable items from new big-data technologies."

Actionable means that all the data in the world won't help you if you can't do something with it.

Ben Wiesen is vice president of products and services at Carrier Logistics Inc., which provides software for less-than-truckload fleets. While large fleets have been making use of data for some time to operate more efficiently, he says "smaller fleets have traditionally competed more by providing more flexible service offerings and personalized and niche services."

Currently, he says, most fleets deal with data by reacting to alerts. "They're having the system let them know when there's something they need to pay attention to – and mostly they're ignoring everything else." While CLI's FACTS software has been

"Customers need more visibility into the data," says Jonathan May, director of business intelligence at McLeod Software. "They need to know, what are the drivers, what are the things really pushing my business forward – and what are those things that are pulling me down?"

Focus on action

One of the keys to making data work for you is focusing on "actionable" data.

"We get a bazillion reports, like everyone else, and we're consolidating it into business intelligence and dashboards," says Transervice's Poduch. "We can make pretty graphs, but what is not only meaningful, but what is actionable – what is something I can fix? And that's the data connections we've been working to find."

For instance, he says, you may have data for a trip telling you that road closures due to snow in the mountains caused the driver to run late. "Is that something I can trend? Every December when a certain amount of snow fell, what did on-time delivery look like?" If you can track that your on-time ratio falls from a normal 95% to 85 or 89%, he says, you have the data to do something about it. "Do I need to change customer expectations for that two weeks or month? Maybe I need a three-hour window of delivery instead of 1 hour, or if that's not acceptable maybe we need to reengineer a load."

Once you've discovered a problem or a hidden opportunity using the data, you have to do something with it. If you find out orders are sitting in accounting, you need to talk to the person responsible and set up a plan to improve. If you discover a particular part is failing on a certain model of truck at a predictable mileage, you need to set up a plan to replace them before they fail, and discuss whether that spec needs to change in the future.

Get data insights in real time

Not only can you get data and alerts in real time; increasingly, you also can get real-time insights.

As more technologies are added to trucks, they're producing more and more of that real-time data. "We know customers are relying more on connected vehicle data," says Jason Krajewski, manager of Daimler Trucks North America's connectivity insight team. "Smarter vehicles require you to have smarter people and more, smarter data coming into your back end."

Netradyne, for instance, is bringing real-time analytics to the area of in-cab cameras. Instead of someone at your office or at the supplier sifting through all the video to try to determine what is a problem that needs to be addressed, Netradyne's product uses machine learning and artificial intelligence at the device level to sift through all the data. If a driver's score significantly drops from the previous hour, it can send an alert to the driver and to the fleet that something's wrong; maybe the driver is becoming fatigued,

for instance. The fleet manager can immediately call the driver and find out what's happening and determine what to do about it.

This kind of on-board analytics is called edge computing, explains Adam Kahn, Netradyne vice president of fleet business. He compares it to the difference from when you had to send film out to be developed and the ability to view what you've got on your smartphone as you take it.

Ryder recently launched something called RyderShare, which tracks loads in real time, offering real-time map views, estimated time of arrival, alerts on exceptions, and dashboard and diagnostics for on-time performance, reports, and more. In the future. the tool will be further developed to get into more predictive and prescriptive analytics.

"In the past, if we saw something going on, we were making phone calls and asking for updates," says Chris Scharaswak, senior director of product development and innovation for Ryder System. With real-time monitoring, he says, "the data tells us if something's going to be late, and we're already addressing it without having to make a phone call to the carrier."
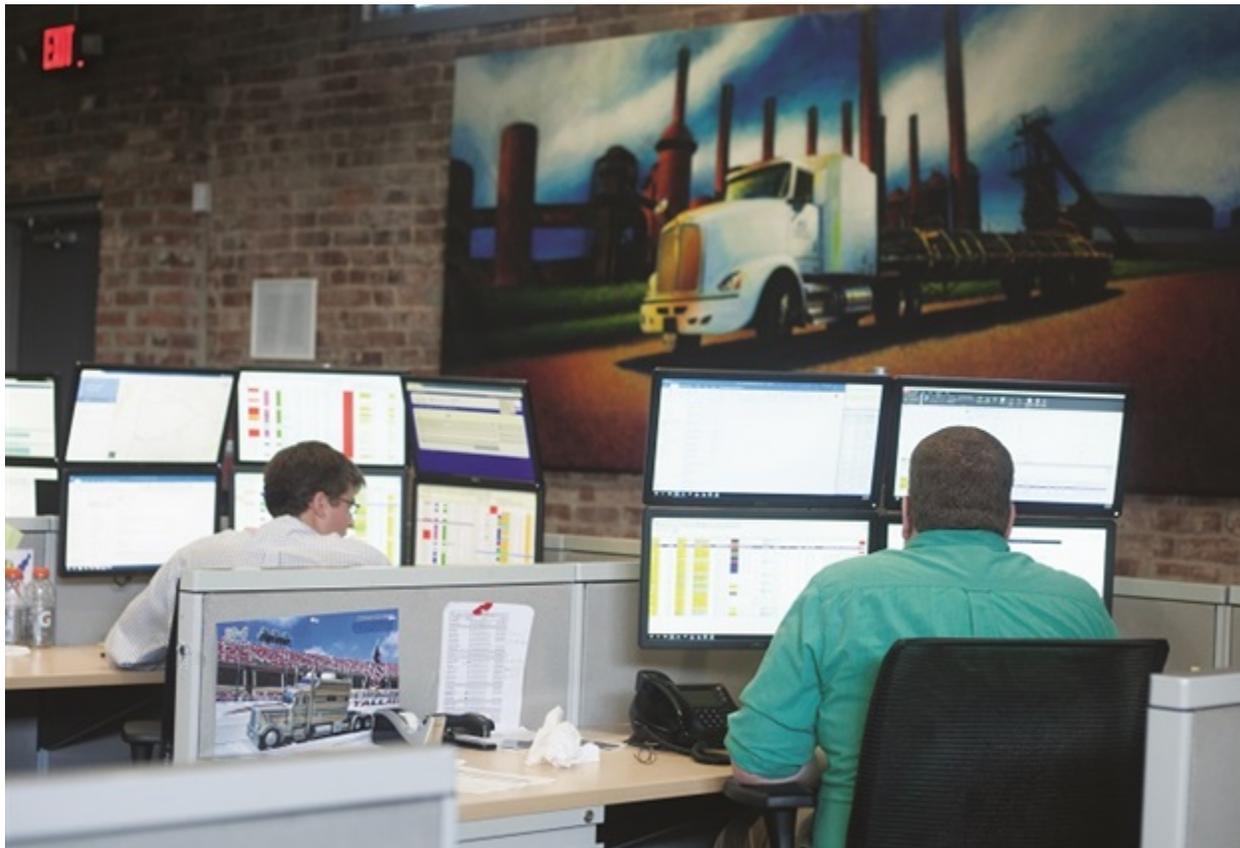
One of the keys to making data work for you is focusing on the key metrics that can make a difference in your company. Focus on what you want to accomplish and how data can help. *Photo: McLeod Software/P&S Transportation*

Define the critical few

One of the most oft-cited pieces of advice for when you're feeling overwhelmed with data is to focus on specific metrics you want to improve.

It's all too easy to get overwhelmed with lots of reports, says Scharaswak. Instead, he says, "I want to clearly define the business objectives I'm trying to achieve. Then, I can be smarter at defining what is it I what to measure or make sure I've got smart metrics around.

McLeod's May says, "A customer called us one day and said, 'I've got over 100 KPIs,' and we said, 'Those aren't all key.' There's really only a handful you should really manage and really use for tracking your business – and for each customer it's different."

As DTNA's Krajewsky says, "Know what you need to know. The fanciest technology and slickest interfaces can make for a very neat experience when looking at information, but if you don't know what it is you are looking for, it can all become meaningless clicks and reports."

Tim Leonard, executive vice president, technology at TMW Systems, says the company has accumulated a lot of information in trucking around "what moves the needle." Fuel and maintenance costs, he says, "move the needle the fastest – or could lose you money."

He recommends starting out by coming up with five major questions to ask related to those two areas. "Stick with just answering those basic questions from both internal and external capabilities, and then branch out. Don't try to boil the ocean on day one. Get very good at answering those five basic questions every day."

Benchmark

Leonard can even help you figure out those five questions you should ask. Because one of the best ways to figure out the key metrics to focus on is to look not only at your own data, but also at that of similar fleets.

"There's a problem with BI," says Leonard. "That's not looking across the entire industry [to know] what questions are really moving the needle."

He says the new TMW Data Community is an extension of TMW's Reveal Series data analytics platform and does exactly that. "It allows participants to benchmark their performance against similar organizations across a wide range of KPIs, such as rate per mile, fuel costs, revenue per truck, mileage and empty miles, operating ratio, revenue and costs per mile, tractor and trailer maintenance CPM, and seated percentage. You can slice and dice the data according to different variables such as operating region, fleet size, year, lane, and type of freight.

"So now I can tell customers, 'Here are the five questions you need to ask.'

"Business intelligence needs both the BI worlds — their own set of data, and the big data world," he adds.

Benchmarking is nothing new, but the advent of data makes it possible to do it in far more detail.

That's what the Truckload Carriers Association's InGauge program is all about. Chris Henry, program manager for the two-year-old program, explains that InGauge allows companies to compare their operational performance and financial data to similar

carriers, according to mode, size, revenue, region, type of trailer, etc. As part of TCA's Profitability Program, InGauge has three tiers. The first is the ability to compare yourself on a very small set of metrics, or KPIs. The next level is anonymous benchmarking that gives you unlimited access, but doesn't allow you to see the names of companies. The top tier is TCA's best practices group, so not only are you comparing results to fellow group members, you're also getting together to discuss best practices several times a year, Henry says.

"The biggest thing we bring to the table is a way to standardize the reporting from one company to another," he says. "If you don't have that, the process of benchmarking is irrelevant, you're not comparing apples to apples."

Similarly, the American Trucking Associations' Technology & Maintenance Council has long used Vehicle Maintenance Reporting Standards to give fleets a standard way to track maintenance data. TMC is preparing to launch a benchmarking program that will let participants compare their maintenance and breakdown data against those of fleets with similar assets, according to Jim Buell, executive vice president – sales and marketing for FleetNet America.

Buell points out that many fleets accept maintenance as a certainty, just like death and taxes. But in the roadside repair data FleetNet tracks, Buell found by poring over the data from 400,000 annual maintenance events, that many fleets were spending more on maintenance than they needed to. Those that reduced on-road repairs were taking more time to explore the root cause of different issues. Using an example of $13,000 in mirror repairs, he matched the numbers to specific truck VINs and locations. Almost all the repairs were at a fleet yard in one city. A visit to the yard revealed that one tree was clipping off mirrors. "For the cost of a pole saw, $17,000 flowed directly to the bottom line. It was just a matter of looking in the right location." And data made that possible.

BUSINESS ANALYTICS SPECTRUM
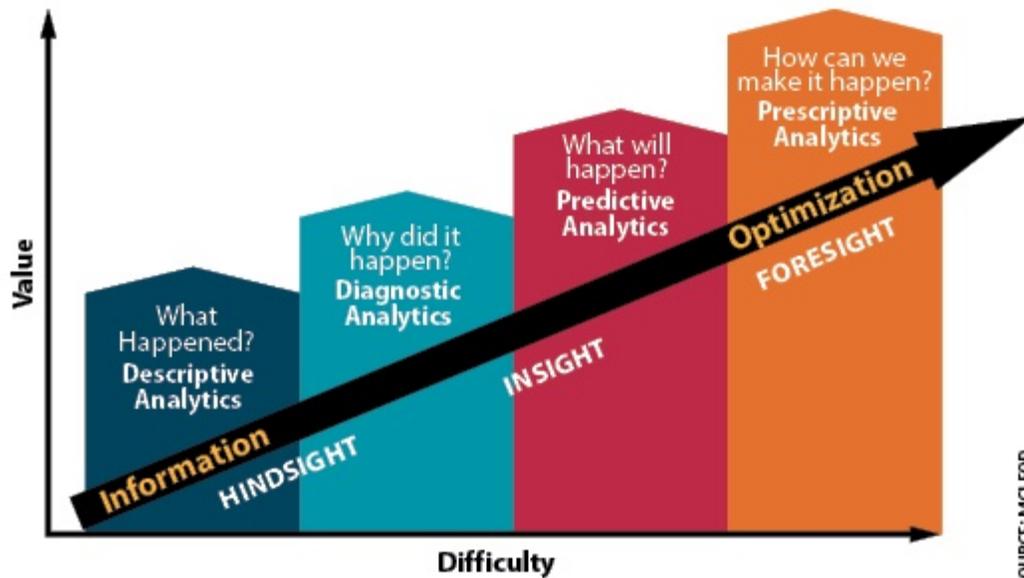
Source: McLeod

Use the right tools

No longer must you have a big IT department to benefit from data analytics..

"If you go back maybe 10 years ago, a lot of customers were saying, 'Give me all the data and I'll do all the work," says Randy Morgan, COO of Comdata, which offers fleet payment solutions for fuel and more. "So we tried to get customers more and more data. But I think they got so much, it almost paralyzed them."

So, Comdata developed FleetAdvance. "Whether you have two trucks or 10,000 trucks, it takes that big data and makes it very actionable." It scores fuel transactions while the driver is at the pump and offers fleets insights into how much they could be saving with better decisions, based on benchmarked data from other fleets.

At MiX Telematics, explains Pete Allen, chief client officer, different people in the organization might be responsible for different "buckets" of data the company can provide. "What we do is try to help the people who are responsible for each bucket better manage that data."

The simplest way to do that, he says, is subscription reports. "If I'm head of safety, I would want to get a report once a week that ranks my drivers – who are my red, yellow and green drivers, with the red drivers being the highest risk, so I can coach those folks to improve. So we'll set up specific reports by department or person to go to them when they want them."

For those who want to dig deeper, a tool called MiX Insight Agility helps users connect the data to Excel to create their own dashboards, reports, and trendlines, specific to the data they want to analyze.

Another example is PeopleNet and Noregon's new Fault Intelligence program, which "offers a portal view into all makes and models of vehicles and engines as to the health of that particular vehicle," says Eric Witty, vice president of product management at PeopleNet. "It gives the fleet a little configurability around what's important to them, and they can see the vehicle on a map with a color-coded health indicator."

In addition, most truck and engine makers now are offering various ways to take the data coming from the truck and prioritize it for customers.

Dan Deppeler, vice president of maintenance for Wisconsin-based Paper Transport, was a test fleet for the new Detroit Connect Analytics program. "We see so many fault codes," he says, it's like "boiling the ocean." The Detroit product helps prioritize those fault codes and makes it easier to drill down into fault codes, fuel efficiency and safety data coming from the truck.

Paper Transport used the analytics to show drivers the relationship between vehicle speed and mpg. "A common discussion I have with drivers is they don't believe higher speed really means that much fuel loss," Deppeler says. "Having some of that statistical data has been really helpful to convert a few of the drivers. And using real time statistical variance to track outliers, we don't have to look at stale data that's a month old and try to figure out what caused that poor performance."

Bill Combs, director of Connected Fleet Solutions for Penske Truck Leasing, says people running fleets are "never going to have time to do all the analysis they want to do." Connected Fleet Solutions, introduced earlier this year, is a device-neutral, remote-diagnostics platform that offers not only remote diagnostics but also big data analytics to help fleets stay on top of vehicle maintenance.

"A lot of times it's displaying data in ways that highlight key points in the data or turn it into insights so they're looking at a couple of graphs, rather than looking at seas of data," says Sherry Sanger, Penske's senior vice president of marketing.

At MiX Telematics, Allen says, they offer clients quarterly business reviews to help them use the available data. "I think what they should be looking for is a partner that will help them [use data to] achieve their business objectives and also look for hidden opportunities they find in the data."

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