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# GOT IN-TRANSIT DATA?

**Real time in-transit cold chain visibility is essential today. Here's how new technology is delivering improved retail inventory performance through insights and agility.**

BY **JOHN HAGGERTY**

**R**etail food supply chains — especially refrigerated cold chains — have become increasingly complex. Gaining real-time visibility via supply chain data is essential today to optimize retail inventory effectiveness.



John Haggerty

## KEY DATA POINTS

Key benefits gained from visible data points and insights include on-shelf-availability, turns, freshness, shelf-life, reduced shrink (or in-store losses), and more. Omni-channel distribution, multiple points of sale and new delivery modes have products moving to and from more places, faster than ever. Manufacturers, producers, shippers, logistics providers, and retailers face similar challenges and need to know (in real-time) where goods are, the volume and velocity of movement, when products are needed, ETA, and the expected condition of goods before arrival.

Let's examine how real-time visibility technology can help optimize the flow of finished goods in transit within the middle miles.

Middle miles include movements from post-production into interim warehousing, distribution and to the store level. It doesn't include direct consumer interaction.

Best-in-class service providers use aggregated data from multiple sources to provide real time-visibility, authenticity, and insights. With this continuous flow of real-time information, trading partners can plan and adjust the flow of goods with greater agility. This results in improved inventory performance — a critical factor with shorter-life fresh products.



**'Early indicators of supply chain disruption have the potential to give weeks and months of advance planning insights.'**

— **Josh Brazil**

Prior to the COVID crisis, OTIF (On-Time and In-Full) delivery compliance and fee management were among the hottest supply chain topics at retail. With shippers reporting millions in new operating expenses caused by OTIF, tools to settle such disputes became popular.

## A LITTLE HISTORY

Supply chain visibility in transit got its start back in 1985 with Qualcomm, a company best known for inventing CDMA, or Code-Division Multiple Access. For the uninitiated, CDMA is a channel access method used in radio communication technologies. CDMA allows several transmitters to send information at the same time over a single communication channel. This lets multiple users share a band of frequencies.

Qualcomm came to dominate the global cellular, chipset, and mobile processing markets, delivering the Omnitrac satellite-based messaging and tracking system for long-haul trucks. If you had a big fleet of trucks (and lots of cash), it made sense. If you were a small or independent trucking concern, eh... not so much.

**New reefer units can be started, given new temp settings & pre-chilled while parked or in motion, with or without a driver — all done remotely.**

Then in the early 2000s, new innovations started to change the game. MacroPoint, later acquired by Descartes Systems Group came out with a new cell phone app that tracked truck drivers.

LocusTraxx, now part of Emerson Global, delivered the first disposable single use real-time solution for shippers and independent carriers.

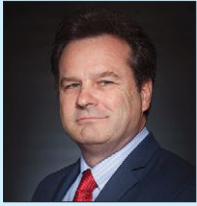
"I started developing the first real-time solution for the global cold-chain back in 2008," said David Benjamin, the original CEO and the founder of LocusTraxx. "The ability to see what was actually happening

to a load in real-time, on any truck, virtually anywhere in the world, was groundbreaking and exciting." Retailers and shippers alike saw the value. ▶



**'Seeing these dominant competitors recognizing the need to work together and joining the Open Visibility Network, that's really going to change the game.'**

— **David Benjamin**



**'What's most important is making new insights actionable.'**

— **Don Durm**

► So what's coming next? "There's a whole new crop of innovators out there," said Benjamin. "Market leaders like Tive, Project44, and FourKites, are so much more than dots moving on a map and they're really changing the fabric of supply chain visibility. Now, seeing these dominant competitors recognizing the need to work together and joining the Open Visibility Network (OVN) that's really going to change the game."

Tive's CEO and founder Krenar Komoni launched OVN just a few months ago and against all odds the first two companies to sign on were Project44 and FourKites. These two fierce competitors in the visibility space recognize the

need to cooperate to serve the greater good. From what I hear there are more players in the space looking to join the OVN in the near future. I think Craig Fuller of FreightWaves said it well: "Scale matters in the visibility space."

Josh Brazil, vp of marketing with Project44, noted that "The aggregated global data sets that we see at Project44 are revealing tremendous insights into global trends and supply chain disruption indicators. These early indicators of supply chain disruption have the potential to give weeks and months of advance planning insights to manufacturers, shippers, and 3PLs."



**'Total supply chain visibility will have tremendous benefits in the areas of traceability, quality management, waste reduction and shelf-life prediction.'**

— **Ed Treacy**

## CONTACT INFO

- **Descartes Systems Group** – Waterloo, Ontario, Canada (descartes.com)
- **Emerson Global** – Ferguson, Mo. (emerson.com)
- **FMI, the Food Industry Association** – Arlington, Va. (fmi.org)
- **FourKites** – Chicago (fourkites.com)
- **FreightWaves** – Chattanooga, Tenn. (freightwaves.com)
- **Global Cold Chain Alliance** – Arlington, Va. (gccca.com)
- **Lineage Logistics** – Novi, Mich. (www.lineagelogistics.com)
- **MacroPoint** – Cleveland (www.macropoint.com)
- **PLM Trailer Leasing** – Newark, N.J. (plmfleet.com)
- **PLM TrustLink** – Newark, N.J. (plmtrustlink.com)
- **Produce Marketing Association** – Newark, Del. (pma.com)
- **Project44** – Chicago (fourkites.com)
- **Qualcomm** – San Diego (qualcomm.com)
- **Tive** – Boston (tive.com)

Data sharing and real-time inventory visibility within warehouses and distribution centers have been available for decades. Attaining the same level of visibility to moving goods in transit is relatively new. This has been accomplished via improved sensors, transmission signals, and data aggregation methods and services. Some of today's single-use tracking sensors, produced by companies like Tive, weigh just a few ounces. Fixed sensors installed on trailers provide additional data.

High-tech trailers, such as those provided by PLM Fleet, the nation's largest refrigerated-only trailer lessor, are designed with proprietary built-in technology to provide continuous visibility. Data is transmitted constantly to and from virtually anywhere, providing operating temperatures, refrigeration system condition outputs, truck speed, and more. PLM customers are supported by a proprietary PLM TrustLink providing end-to-end case-level visibility.

Additionally, new trailer systems allow for remote operation of trailer refrigeration units. From a thousand miles away a reefer unit can be started, assigned a new temperature setting, and pre-chilled while parked or in motion, with or without a driver.

More than just providing dots on a map or temperatures, new systems with predicting analytics provide valuable insights which can anticipate events before they happen.

## NOTABLE QUOTABLES...

**Todd Lanter**, director, transportation network integration at Lineage Logistics and **Don Durm**, vp of customer solutions at PLM Trailer Leasing, echoed the



thoughts of others regarding the value of real-time insights — especially when it comes to trading partners using them collaboratively. But most important, they said, was making insights actionable. For example, if a warehouse can see two early trucks and two late trucks, swapping out appointments can benefit everyone. Lanter serves as chair and Durm, vice chair of the International Refrigerated Transportation Association, a core partner within the Global Cold Chain Alliance.



**‘There’s value in real-time insights — especially when it comes to trading partners using them collaboratively.’**

**— Todd Lanter**

According to **Ed Treacy**, vp, supply chain and sustainability with the Produce Marketing Association “Total Supply Chain Visibility will have tremendous benefits for the Fresh Produce and Floral industry in the areas of traceability, quality

management, waste reduction, shelf-life prediction and other operational efficiencies.”

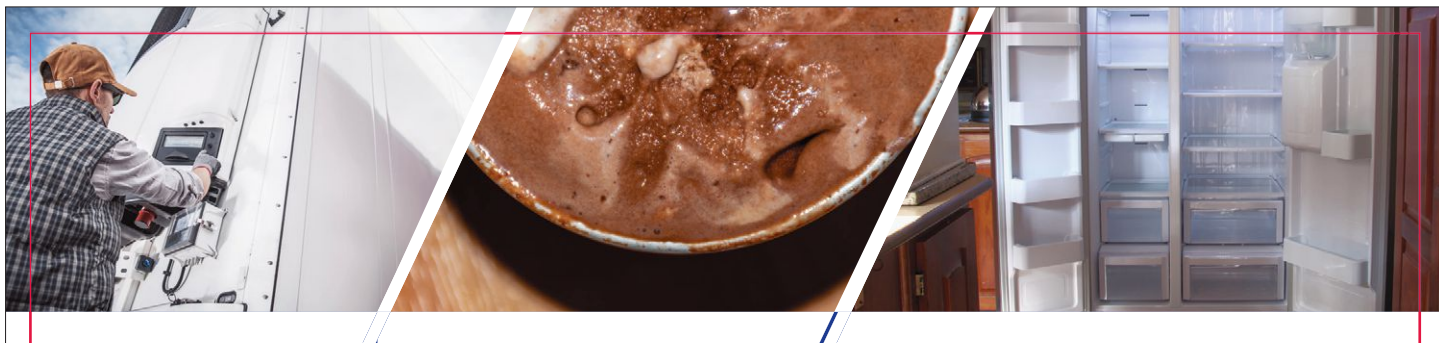
**Marjorie D. DePuy**, senior director, supply chain & sustainability with FMI, the Food Industry Association, added that “We’re seeing more and more examples of actionable collaboration on data and assets that will continue to drive improvement in the supply chain. The opportunities are ripe to look not only inside your network but across to your partners,’ identify ways to leverage the increasing visibility and target specific areas for mutual gain.” ■

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**‘We’re seeing more and more examples of actionable collaboration on data and assets.’**

**— Marjorie DePuy**



## What Could Possibly Go Wrong in the Supply Chain?



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When it comes to the supply chain industry, many challenges can arise like ice cream melted on the back of a truck due to a slight change in temperature. If it weren’t for mistakes, we would not learn how to better plan and adapt to challenges. 95 years of challenges have allowed Burris Logistics to provide you with expertise in almost any situation.

It is crucial to have a trusted 3PL partner to help ensure products are moved safely regardless of the variables that can come into play. Burris Logistics offers complete solutions for managing frozen and refrigerated food products and many other products such as chemicals, flowers, etc. We MAKE IT HAPPEN through our various solutions, such as temperature-controlled warehouses and expert e-commerce partnerships, freight brokerage, custom distribution, and food service redistribution.



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