



DIGITAL TRANSFORMATION, END-TO-END VISIBILITY, AND THE "DATA PROBLEM"

Why Solving the "Data Problem" Is the First-Step and the Key to Digital Transformation and True End-to-End Visibility

Given the macroeconomic climate and the "Amazon effect," many companies are looking to digitally transform their businesses.

For decades, businesses have largely derived efficiency and profitability through scale. This led to a focus on larger store footprints, warehouse space and buffer stock, and the ability to transport goods on mega vessels for unit cost savings. In the last few decades, however, customer expectations have gone up, largely dovetailing off the service that Amazon

provides. Retailers and manufacturers have been forced to modernize and deliver with much higher reliability and timeliness. Many executives are now looking to transform their supply chains from a reactive cost-center to a strategic advantage. There are many applications of digital transformation but, holistically, it's about businesses transforming their supply chains with data and gaining better access to that data, making sense of that data, and using in a fundamentally different way to drive profitability.

"It is impossible to get end-to-end visibility unless you're cleaning and solving the underlying data problem. Only when you are able to solve that underlying data problem can you make not only better, but fundamentally different, decisions."

-Adam Compain, CEO, *ClearMetal*



One common goal of digital transformation is to deliver end-to-end visibility of your supply chain.

Many people think end-to-end visibility is simply seeing information in one place, aggregating data from multiple sources and serving it up. That task, though hard, is relatively simple and, more importantly, doesn't solve the fundamental challenge. There have been visibility providers for decades yet everybody in the industry is still clamoring for end-to-end visibility.

Why? Well if you investigate why previous attempts to provide end-to-end visibility have fallen short, you realize it's that no

one has solved the underlying data problem—meaning the underlying data being used for visibility can't be trusted. Gaining true end-to-end visibility is about finally making sense of data across your entire supply chain so that you can see inventory more clearly, you can see exceptions in advance, and you can use this kind of information to make fundamentally different decisions.

At ClearMetal, we're not just about collecting, aggregating, and showing information; we're about solving the fundamental data problem— delivering data you can trust so that true visibility can finally be achieved.



Data is both the biggest problem and the biggest opportunity in supply chain.

It's a problem because historically it can't be trusted, and if you don't understand the underlying issues with it, then digital transformation is simply not possible.

Supply chain professionals, from executives down to front line professionals, are facing lots of challenges daily. They are making decisions about which shipments to pay attention to, whether to ship via air or ocean, which service provider to choose when booking freight, and how to staff their warehouses. The challenge to answer these questions doesn't stem from lack of expertise but, rather, having to rely on systems fueled by flawed data.

To explain the issue tangibly: if you look at the transportation space, you see a complex international, intermodal supply chain that is run off a 315 EDI message set. If you look at the actual EDI messages that are produced at the port or from a

carrier (be it motor or ocean), there are inherent errors in the data. For instance, that 315 message will send an Out For Delivery message at the same time as a Delivered message. This is because the bill of lading may state that the final destination for the ocean carrier segment of that journey is the port, when actually, for the retailer, it's their distribution center or warehouse.

There are thousands of examples like this that are happening erratically every hour and so you can start to see how these kinds of issues, quite literally in the data—from statuses and codes to latency and beyond, can create really big problems if a person is relying on this information to make multi-million dollar decisions about inventory.

While historically this has been the big 'data problem', we now have the technology to take that data and make sense of it in ways we never could before. With our unique capability, data has transitioned from the great hindrance to the greatest opportunity for innovation. And while a common fallacy is that companies need more data or more systems to get started, it's not true. There's enough data that, if adequately cleaned, canonicalized, and made intelligent, transformation can take place. A big reason people don't believe this is because it's never before been possible. But we've made it so, and many of the largest supply chains are already reaping the benefits.



ClearMetal leverages proprietary machine learning to clean and make sense of supply chain data for digital transformation.

ClearMetal has custom-built technologies that use machine learning and AI to automatically clean, correct, and make sense of supply chain data-- sequencing it properly, cutting out the duplicates, imputing certain events, labeling milestones correctly, and throwing out erroneous information—and in a manner never before done.

Only then, after the underlying data problem is solved, does the software apply artificial intelligence to provide predictive analytics via a cloud-based application that

provides real-time, end-to-end, predictive visibility and risk assessment and planning capabilities.

Best of all, zero IT resources are required to get started.

Many have a misconception that it requires a lot of time, a lot of investment, and a lot of resources to digitally transform and start to derive value in a digitally-enabled supply chain. While it's true that older technology implementations and solutions did require a great deal of investment in time and resources, customers that are engaging ClearMetal are integrating the technology in a matter of weeks and getting started with zero IT resources on their side.



About ClearMetal

ClearMetal is a predictive logistics company that uses AI to enable supply chain transformation. The ClearMetal Platform solves the core data challenge that has long plagued retailers, manufacturers and 3PLs-- leveraging a fundamentally different approach and proprietary machine-learning technology to deliver true end-to-end supply chain visibility. ClearMetal is based in San Francisco and funded by Prelude Ventures, Eric Schmidt's venture firm Innovation Endeavors, NEA, PSA Unboxed, DCLI, SAP.iO, and the founders of GT Nexus and Navis.

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