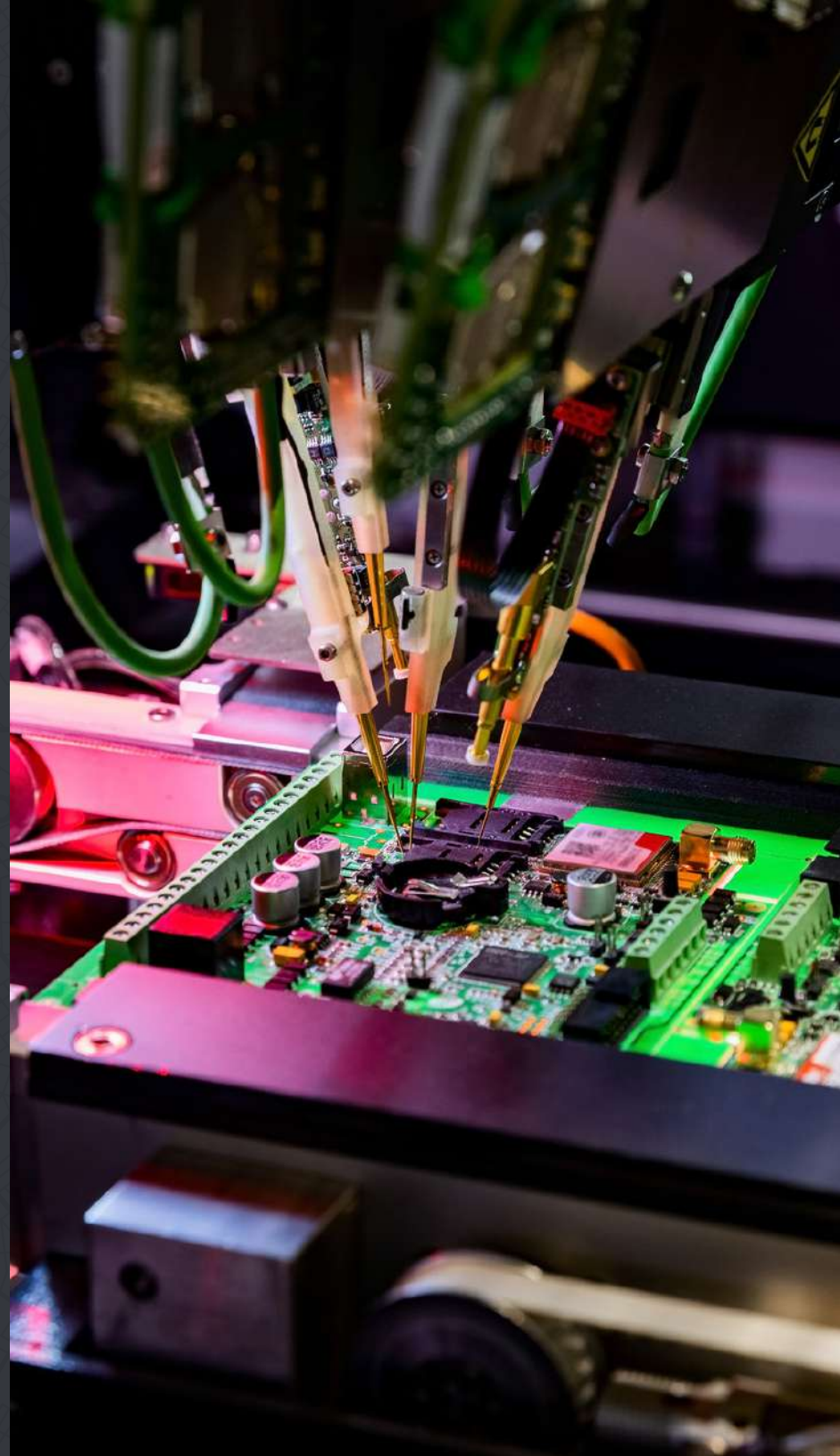


PLAYBOOK /

How To Navigate a Changing Landscape for **Electronics Supply Chains**



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Introduction

If a one-word theme describes the supply chain over the past few years, it's "disruption." Electronics suppliers and manufacturers have been particularly hard-hit, with [worries over component shortages](#) lingering in 2023. Ongoing Covid-19 struggles in component manufacturing centers like China, an inventory yo-yo of shortages, then overages and the ever-present risk of product theft are just a few of the challenges facing the industry.

Various forms of upheaval are par for the course in any supply chain. "The supply chain is a living, breathing thing and it absorbs disruption after disruption," notes Todd Simms, VP, Industry Strategy, Manufacturing at FourKites. "That has always been the case. It's just been a bigger story over the past three years."

In this playbook, we'll uncover some of the trickiest challenges to the electronics manufacturing supply chain – and how real-time visibility data can help you get a handle on them.



Key Challenges for Electronics Supply Chains

Beginning in 2020, component supply shriveled as Covid-19 (and its related lockdowns) knocked out major manufacturing hubs (most notably China and Taiwan) for extended lengths of time. The pandemic had another effect that further shrunk available component stock: a spike in demand for consumer electronics. Products like the PlayStation 5, computers and smartphones crawled to market too slowly to meet customer needs.

With life returning to normal, that pendulum has swung the other way – demand has waned since the pandemic’s peak. That leaves electronics manufacturers with a new wrinkle: re-forecasting their inventory needs and dealing with overstock in a sector where obsolescence comes all too soon for products.

One of the biggest factors complicating these supply chain challenges is the lack of real-time, end-to-end visibility. Anyone working in electronics supply chains today will likely recognize the problems that arise from operating in the dark:



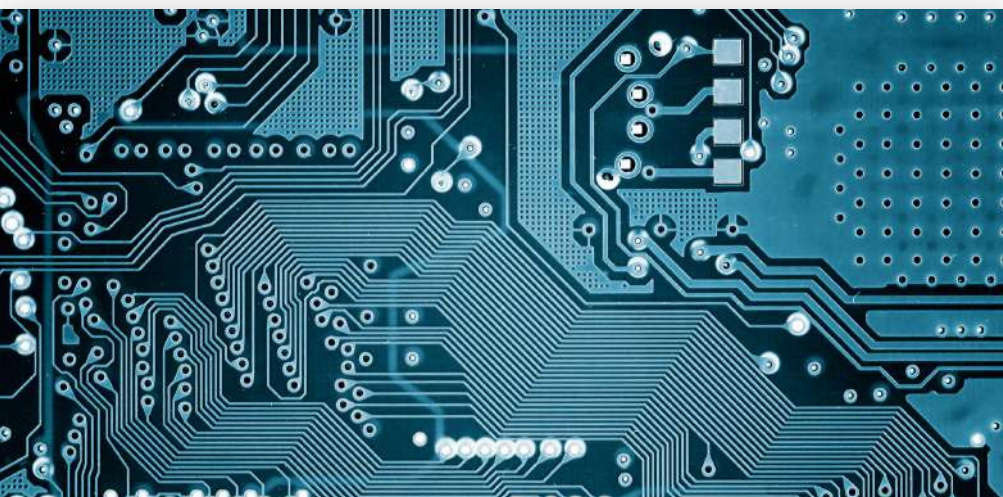
Data silos. When your systems lack the capability to connect data across multiple modes of transportation — or multiple stakeholder groups — those systems may be creating more problems than they are solving. You need true end-to-end visibility right down to the PO and SKU level in order to get (and maintain) effective control of your supply chain.



Poor quality data. Having more data does not automatically put you in a better position. Once the data is digital, it still might be incomplete, inaccurate, or just plain stale, making it difficult to translate data into actionable information.



Blind spots of visibility on traditionally opaque parts of the product journey – like ports, terminals, and dark vendor networks. Without a robust visibility solution shining a light on problem areas, these common bottlenecks and points of failure go unchecked, undermining efforts to boost supply chain performance.



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Companies tend to be in one of two categories: **either they're data heavy, or they're data rich.** Data heavy companies have tons of information, but no good way to wrestle it into insights they can act upon to improve their operation. Data rich companies, on the other hand, have a visibility solution in place that provides configurable analytics they can actually use to create action plans.”



Todd Simms

VP, Industry Strategy, Manufacturing
at FourKites

How does a lack of visibility and poor data management manifest in the electronics supply chain? According to Ken Gregory, former VP of Global Supply Chain & Procurement of clean power solution provider Green Cubes Technology, current challenges in the supply chain include:

- Shortages
- Capacity
- Labor issues
- Financial concerns
- Sustainability

So, is this all bad news for electronics manufacturers? Definitely not – improved visibility into your supply chain will help you overcome these challenges and make your operation strong enough to withstand the next big disruption.

How Visibility Builds a More Reliable Electronics Supply Chain

The right visibility tool helps give companies back control when battling their biggest challenges. It lets you see everything in one place, so you can act much more quickly to address or prevent issues.

Here are some specific ways better visibility addresses electronics supply chain concerns:



Shortages

Whether it's components, capacity or labor, a lack of resources drives price fluctuations and makes it harder to meet demand. To meet customer commitments while maintaining revenue, manufacturers need to be agile and efficient throughout every link in the supply chain. A good visibility tool helps you connect all the dots along your supply chain so you can spot trends, proactively manage issues and better prepare for changes in volume.



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In the past, our market personnel had to wait for a notification that the material had arrived, then they would schedule a pickup potentially waiting a day or two. With visibility, the market personnel know exactly when they need to arrive, which reduces unnecessary wait time and it has actually reduced the amount of time it takes for us to get material into the hands of our end users.”



Robert Taglione
Manager, Domestic and
International Transit, T-Mobile

T-Mobile™



Capacity

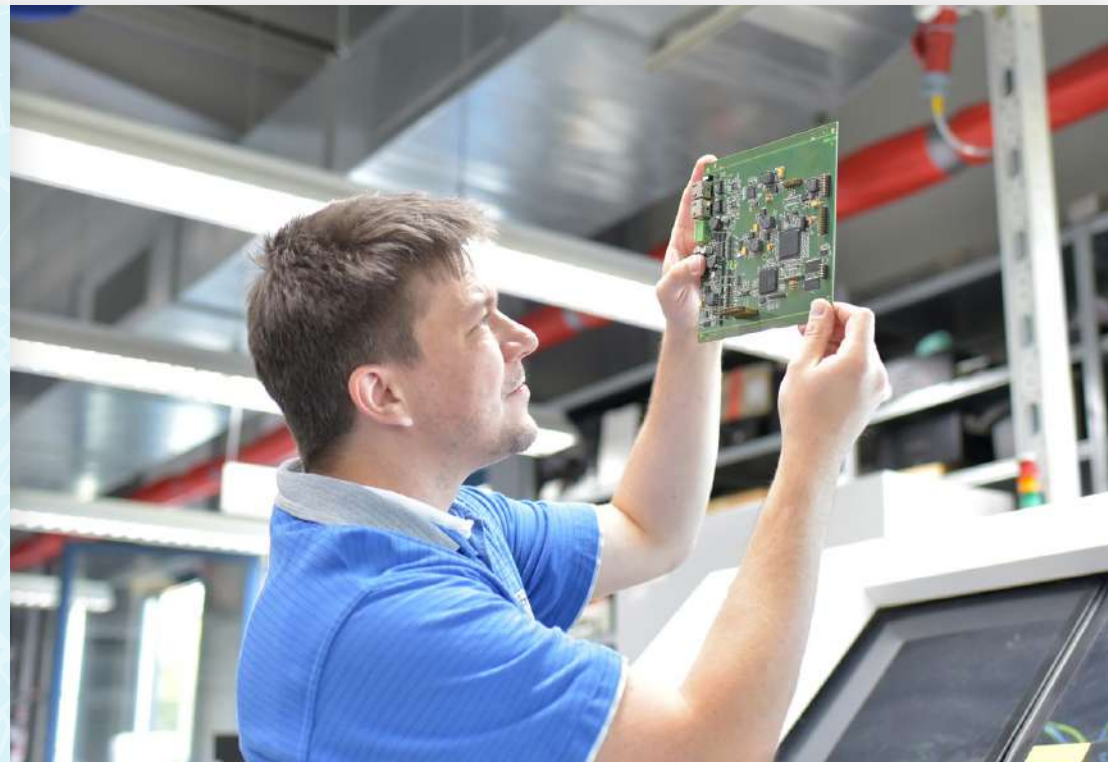
With a shift in production well underway, more manufacturers are eyeing Mexico as an answer to their problems. The issue is, the supply chain infrastructure may not be quick enough to handle a surge in volume across the US-Mexico border. A better

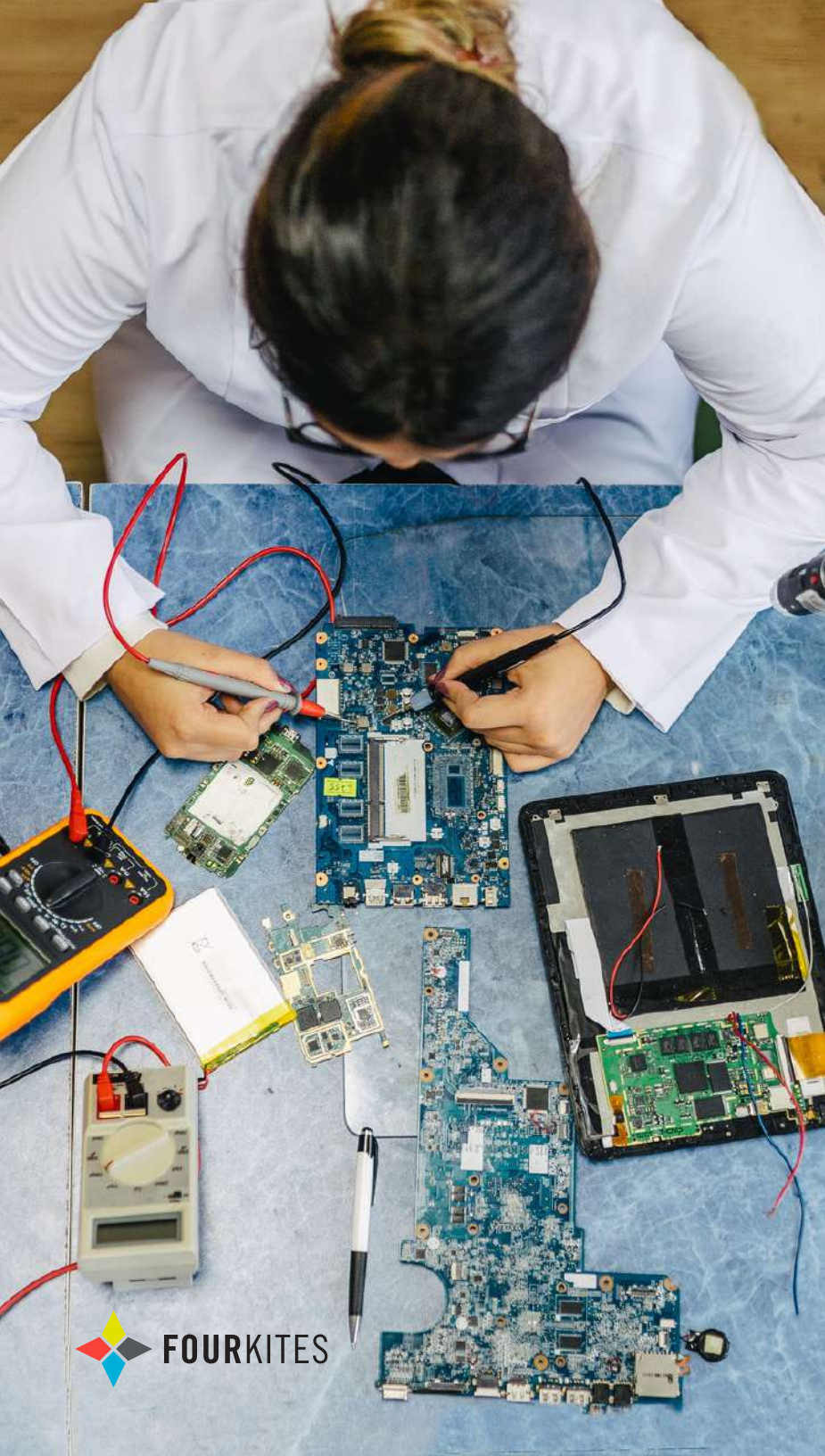
visibility solution makes it easier to optimize your network to place the right loads with the right carriers by using historical data to benchmark your provider network. This can significantly speed up shipping and help you reduce fulfillment lead times.

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Visibility has also improved our carrier scorecarding process. That was a very manual, time consuming creation process, and now we can not only create it faster, but by having the extra milestones, we're really able to zoom in on what was the true root cause of a shipment delay.”

Kim Segel
Director of Global Transportation, Zebra Technologies





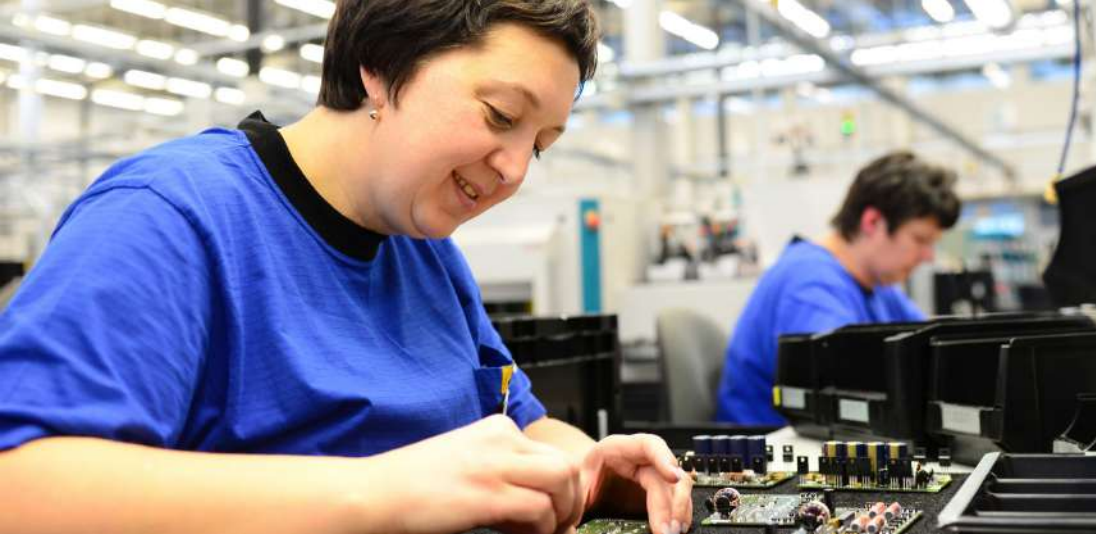
Labor issues

Using your visibility tool to optimize workflows can improve employee satisfaction. A big factor in employee burnout is having to perform repetitive, tedious tasks every day. Streamlining those tasks and making the job easier makes it more attractive to prospective and existing employees.



Financial concerns

With high inflation and a potential recession looming, visibility is critical to keeping your costs down so you can keep your pricing competitive as customers become less willing to part with their cash. With the right tools, penalties can be avoided, expedites can be minimized, and inventory can be optimized, reducing your overall operating costs and creating stability.



The #1 primary business challenge among more than 75% of respondents to a NAM survey was attracting and maintaining a quality workforce ([Manufacturing Dive](#)). Labor was high on the list of challenges for manufacturing industry professionals in the recently released [FourKites State of Ocean Shipping survey](#), ranked only 2% behind the #1 pain point, high shipping costs.



Sustainability

Building a more sustainable supply chain is top of mind for many organizations. Not only are consumers more concerned than ever about the business practices of companies they deal with, but new pressure from investors, emerging technology and operating costs also play a big role in the push for sustainability.

The problem is, a lot of companies have bitten off more than they can chew when it comes to sustainable practices. Metrics are a bit hard to define in this area, so there's not one point of measurement you can point to and reassure customers

you're doing all that you can. And the more complex your supply chain, the more squishy these metrics get. If you have 40 suppliers, how do you know they're all following your sustainability initiatives?

The answer is connecting your suppliers with your real-time visibility tool. This goes beyond tracking materials and shipments – it's also about spotting inefficiencies that cause a bigger carbon footprint (and higher costs), such as empty miles or dwell time.

How To Get Better Visibility Into Your Electronics Supply Chain

Overcoming these supply chain challenges can have a significant impact on your operational efficiency and bottom line. But getting there requires careful alignment between your current systems, technology solutions and processes.

If your organization hasn't reached a high level of digital maturity and is still mired in manual processes, you have more ground to cover, but the payoffs are much greater.

According to Gregory, "If you're on the lower end of the maturity curve," he says, "try not to be intimidated by the fact that your data might not be as easy to find and merge."





If your supply chain operations are primarily analog, just digitizing your track-and-trace operations is a major advancement – and might be all you can handle right now. You’ll see significant improvement in labor efficiency and customer satisfaction, without getting bogged down in data you’re not ready to digest, analyze and act upon. Start with solutions suited to your current technological capabilities, and add in more complex visibility tools as you mature.

When your organization is ready, Simms advises that connecting your digitized supply chain data is crucial — “Organizations that can aggregate

their data and have one line of truth are better able to create action plans.”

If you’re able to use your aggregated information to make informed decisions, you’re in a better position to spot opportunities for both optimization and innovation.

A sophisticated visibility platform can serve up actionable insights from the data it collects and collates. With this supply chain intelligence, your team can weigh those insights against your business objectives and decide how best to act.



How FourKites Can Help

“I think people define ‘visibility’ differently,” says Simms. “If I think I have visibility throughout my organization and I really just have track and trace, that’s not ‘visibility’ to me.” You need the context provided by an end-to-end view, and a centralized hub of information, for true supply chain visibility.

With FourKites, you can consume all of your data in a single pane of glass so you’re better able to make sense of it and empower your frontline employees to independently make decisions on the fly. You get end-to-end visibility – transportation, yard, inbound and more – to improve your planning and inventory, efficiency and compliance while reducing costs and improving customer experience.

FourKites tracks over 3 million global shipments daily, giving you access to the most accurate ETAs, greater network collaboration and a single source of truth for all your visibility data.

If you’re ready to stop reacting to disruptions and create a more proactive electronics supply chain, [get in touch today](#).

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