



EBOOK

5 Value Drivers of Multi-tier Supply Network Mapping



A constantly moving target

In 2023 a major European airline detected the widespread use of counterfeit parts in their aircraft from a single supplier. It's uncertain how long these planes had been operating with uncertified parts, but the alarm set off an investigation across other major airlines. When the dust finally settled, four additional airlines discovered the widespread use of counterfeit parts in their passenger planes.

This was a big deal. Without proper certification, the tightly regulated aerospace industry can't guarantee that the aircraft parts passengers rely on at 30,000 feet in the air will work. Despite the obvious concerns, this issue set in motion a series of supply chain due diligence procedures – leading to bigger challenges that no one saw coming.

To replace these invalid parts, procurement teams needed to find new sources for a myriad of certified parts while tracing parties deep into the extended sub-tiers of the supply chain. And that meant identifying and collaborating with suppliers quickly – a process that spanned a vast network.

Unfortunately, without an accurate and comprehensive supply network map, this exposed a lack of understanding of all the players in the supply chain and slowed the response.

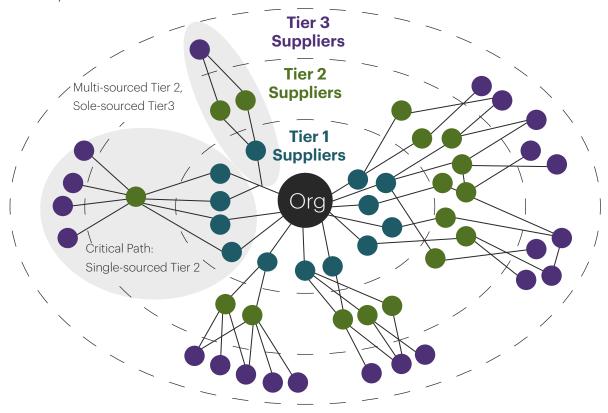
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Mapping out the supply network

Accountability and responsibility

5 value drivers

For many brand owners and manufacturing companies, pursuing end-to-end supply network visibility has become a moving target. As soon as they understand who their primary suppliers and supply chain partners are, the shifting market or a disruption requires an even deeper level of visibility.





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As regulations increase in scope and consumers become more aware of their buying power, knowing the extended, comprehensive partners and suppliers across the supply chain has become crucial.

Additionally, gone are the days when a company could plead ignorance when a restricted supplier was identified. Today, however, government agencies are not so forgiving — especially when counterfeit parts lead to a major disaster. Now, companies are burdened with the task of sub-tier partner identification, including their suppliers' suppliers and beyond, and they are held accountable for the actions of every partner and supplier in their network.

One way to gain this understanding is by mapping out the entire supply chain supplier network. This can be a significant challenge for some companies, and it is not uncommon for companies with an extensive product set to have tiers of the supply chain extend well beyond the company's ability to collect this information.

Multi-tier Supply Network Mapping is the process of identifying the key partners in a supply chain and collecting information about each of them to build a comprehensive supply network map. The partners involved could be suppliers, logistics providers, distributors, and even suppliers to the tier 1 suppliers. This thorough supply network map creates a collaborative and resilient supply chain by helping to expose where parts and materials are sourced and how these traverse the supply chain.

For the companies that need a little help, technology has converged across industries with the same goal. It's making the ability to collect data, evaluate compliance, and collaborate with suppliers across tiers a real possibility through Multi-Tier Supply Network Mapping.



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Accountability and responsibility



Many companies have been faced with the need to be more accountable. Today, they're faced with the complex question: how well do we know our suppliers? The answer, although difficult to reach, can help resolve many supplier-related issues.

Consider the implications in an example. A single weather event can take an entire region offline, making committed parts and materials unavailable until the region recovers. But what if the weather event is isolated to one particular city in a foreign country?

Do you know which suppliers and partners are impacted from a geographical standpoint?

Answering these questions quickly and accurately has become a competitive advantage for many companies. Here's how two of them are using their comprehensive multi-tier mapping to remediate issues and collaborate on ways to mitigate supply risk.



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Driving supply assurance

When a leading automotive manufacturer encountered semiconductor chip shortages, they were left with a large inventory of unfinished vehicles, all awaiting the needed parts to complete production. They used their supply network map to identify where the constraints originated and to look into lower supply tiers to analyze the shortage further. Once they found the root supplier and alternate suppliers, they were able to collaboratively secure priority for the needed parts while driving an increased level of supply assurance.

Turning demand into supply

A sporting goods manufacturer found themselves with a popular limited-edition product. This increased demand meant an opportunity to increase revenue, assuming they could reproduce the product in bulk. As they collaborated with their tier 2 materials supplier, the company encountered limited materials inventory and capacity with their original supplier. However, by analyzing other tier 1 and tier 2 suppliers in their network, they discovered a secondary supplier that could fill the gap and ensure their product was on the shelf to meet consumer demand.



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Many companies find that a deeper understanding of their supply chain is delivering more value beyond simply knowing who their supply chain partners are, including deeper collaboration and growth with those partners.

Here are 5 ways that multi-tier supply network mapping is advancing how companies manage and collaborate within their multi-tier supply chain to mitigate risk and drive resiliency.

1.

Supply awareness

Identifying all the parties in a company's supply chain gives them the insight to navigate supply issues strategically and collaboratively. Knowing the details of each supply tier enables the identification of single-threaded sources and supply assurance risks.

2.

Supply partner management

A holistic view of all suppliers allows companies to manage who they partner with by gaining control over restricted parties and setting ethical and sustainable expectations with each partner.

3.

Critical relationships

Tracking the source of a component, substance, or material down through the supply tiers reveals supplier relationships that companies should cultivate and strategically use to drive agility and resiliency.

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Data-sharing

Collaborative data-sharing, including the exchange of proposed forecasts and actual supplier inventory, can mitigate supply availability risks and unlock a deeper level of supply traceability.

5.

Risk assessment

The ability to understand the impact of perceived risks quickly and accurately is paramount at every tier of the supply chain. Using geographical mapping and predictive alerting gives companies greater control over their brand's reputation and ability to meet customer expectations.



These improvements don't come without some effort and the right toolset. For example, many companies experience an inability to obtain the correct data or information related to an individual supplier. Furthermore, the data they do receive can be inaccurate, inconsistent, or late. As a result, companies must apply greater effort to gain supplier confidence and trust through a 2-way sharing of data and a method to collaboratively discuss and resolve the issue best for all parties involved.

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A single connected platform designed for the most challenging questions



Multi-tier supply network mapping gives companies an understanding of who they are sourcing from, regardless of whether they are tier one or n-tier. It provides the manufacturer or brand owner the insights to answer some of the most challenging questions. It also protects from compliance regulations and helps promote a healthier brand image to customers.

This superior understanding turns more visibility into increased resiliency and agility by engaging with their suppliers as partners — collaborating to solve the issue that impact both parties.

At e2open, we recognize that most supply chains are complex and outsourced to thousands of external ecosystem partners worldwide. As a result, brands no longer compete against each other but against their extended value chains. E2open's connected approach is founded on the principle that supply chains should not stop at an enterprise's borders, nor should their planning and execution.

E2open combines a multi-tier network platform that connects more than 400,000 suppliers, manufacturers, transporters, and channel partners with a full range of planning and execution applications for one place in the cloud to manage your extended supply chain. It brings together visibility and collaboration across all tiers for informed end-to-end decisions and process orchestration across all ecosystems – all on an open platform.



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About e2open

E2open is the connected supply chain software platform that enables the world's largest companies to transform the way they make, move, and sell goods and services. With the broadest cloud-native global platform purpose-built for modern supply chains, e2open connects more than 500,000 manufacturing, logistics, channel, and distribution partners as one multi-enterprise network tracking over 18 billion transactions annually. Our SaaS platform anticipates disruptions and opportunities to help companies improve efficiency, reduce waste, and operate sustainably. Moving as one.™ Learn More: www.e2open.com.

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