

Supply Chain Illumination: The Value of Mapping Supply Chains

In today's growing supply chain risk landscape, supply chain illumination helps organizations better understand and manage their existing and future risks.

The supply chains of many organizations are becoming increasingly complex. At the same time, potential business risks around supply chains are growing, due to increasing regulations regarding supply chain security, emerging cybersecurity risks, international sanctions, environmental and carbon concerns, product quality issues, climate-related weather events, increasing supply costs, and numerous other potential disruptors.

Most organizations don't fully understand their supply chain. Companies often underestimate the number of businesses, actors, and countries involved in different stages of producing their products. A security or production vulnerability in just one part of a given product's chain could have a huge impact on an organization's production, mission, or business if something were to interfere with the supply. And many important commodities, such as circuit boards, are composed of hundreds of parts. Supply chain illumination sheds light on the components and risk factors involved in a supply chain. Illumination could even help companies identify entities in the supply chain that are simply pass-through corporations that inflate prices without adding value, or it may help companies find alternate suppliers offering the same parts for a cheaper price.

The data that companies have on their existing supplier landscape often only extends to the second or third tier of suppliers, rather than the Nth tier that might be necessary to fully understand the risks or opportunities related to the companies, people, and products in their supply chain. Companies that do not have a comprehensive knowledge



of their supply chain can unknowingly introduce risks into their production that could harm their reputation, clients, third-party partners, business, cybersecurity, resilience, or compliance with things like regulations, executive orders, or customer requirements.

The Importance of Supply Chain Illumination

Since companies often don't fully understand the risks and opportunities in their supply chain, they end up opening themselves up to unnecessary risk and missing opportunities to streamline or improve their supply chains via strategic sourcing. Not knowing enough about your supply chain could mean that your organization ends up exposing itself to liability. For example, you could end up purchasing something from a company without knowing it's a joint venture that benefits a business located in a country under international sanction. Companies that sell to government bodies might find that their supply chain is exposed to threat actors that could introduce cyber malware into their products.

An organization with a risk-informed understanding of its supply chain can leverage that knowledge to improve its security, compliance, and strategic sourcing. Similarly, a company with a good understanding of its sourcing landscape can find ways to reduce costs and improve quality by using the information it has as leverage. For example, if a company finds that several of its products have a common parts supplier, it could try to negotiate better bulk pricing to reduce its overall costs.

Insights from supply chain illumination come with the ability to develop more informed recommendations for actionable opportunities for improvement and reduce potential risks. These can include ways to reduce costs, tactics for strategic sourcing to decrease fail points, bad actor identification, environmental risk mitigation plans, weather or political event remediation, product quality strategies, and cybersecurity planning.

Guidehouse's Supply Chain Illumination Strategy

Guidehouse has considerable experience helping both government and industry map their supply chains to identify risks and opportunities. We leverage the power of proprietary and subscription databases, along with the expertise of Guidehouse's partners who have deep industry knowledge.

We follow a five-step supply chain illumination process



Map Supply Chain: Identifying the parts, components, suppliers, suppliers' suppliers, vendors, manufacturers, brokers, freight forwarders, and other service suppliers. This can often be done to the fifth or Nth layer depending on the circumstances and customer needs.



Evaluate and Develop Risk Ratings: Determining the risk of third parties identified, including those with controlling or influential interests. This involves analyzing things like their location and activity, criticality of part or component, cyber threats, and multiple other factors. We help clients come up with a customized set of risk factors to use to perform this risk analysis.



Perform Due Diligence: Conducting detailed due diligence reviews to identify factors like beneficial ownership, business reputation, financial well-being, commercial practices, related business activities, business partners, disputes and litigation, relationships with foreign governments or individuals, sanctions or watchlist data, and civil or criminal investigations.



Assess Impact: Presenting the results to the client in the form of analytic or other reports, including delineating areas of concern, such as connections to a hostile head of state, previous cyber breaches, counterfeit or issues associated with substandard parts, and other financial or quality concerns around suppliers.



Recommend Mitigations: Providing recommendations to address vulnerabilities, deficiencies, or threats, and working with clients to implement any necessary changes. This might entail, for example, suggesting they conduct penetration testing, change suppliers, perform continuous monitoring, enhance minimum standards, carry out surprise inspections, or issue warnings.



What is Supply Chain Illumination?

Supply chain illumination refers to the act of mapping the companies, people, and products involved in an organization's supply chain. It can include, or provide, the following:

- Increased visibility into supply chains
- Raw material mapping
- Beneficial ownership mapping
- Joint venture mapping
- Geographical/political risk mapping
- Product traceability
- Carbon footprint analysis
- Digital risk analysis
- Shipping risk analysis
- Threat intelligence
- Risk analysis
- Risk management recommendations
- Supply chain continuity planning

What Can Supply Chain Illumination Help With?

Supply chain illumination is critical for reducing risk. It can help your organization:

- Verify beneficial ownership
- Determine business reputation
- Assess financial well-being
- Understand suppliers' supply chains
- Determine business partners
- Identify disputes or litigation
- Understand relationships with foreign governments or individuals
- Determine if suppliers are on watchlists or sanctioned
- Identify cyber breaches
- Identify counterfeits

Guidehouse's
experience can help
your organization
better manage the
risks and understand
the opportunities in
your supply chains.

Contacts

Rodney Snyder, Partner
Cybersecurity Solutions
rsnyder@guidehouse.com

How Guidehouse Can Help

Guidehouse has the supply chain risk management expertise, capability, tools, data, and discretion necessary to provide both government and industry organizations with deeper insights into their supply chains and address any identified risks to the organization or clients. This information is critical to helping organizations understand how much risk they're currently exposed to, and how to reduce that risk in the future. Our work leverages online searches, proprietary tools and data, and open source and subscriptions databases, as well as best practices developed by our experts to refine our research and analysis.

Our experts come from careers in both industry and government, and have backgrounds in fields like supply chain security, corporate espionage prevention, information protection, law, finance, cybersecurity, intelligence, law enforcement, information analysis, and investigations. We have a proven track record of successfully delivering these insights to multiple sensitive government agencies and industrial and technology companies. Guidehouse's experience can help your organization better manage the risks and understand the opportunities in your supply chains.

About Guidehouse

Guidehouse is a leading global provider of consulting services to the public sector and commercial markets, with broad capabilities in management, technology, and risk consulting. By combining our public and private sector expertise, we help clients address their most complex challenges and navigate significant regulatory pressures, focusing on transformational change, business resiliency, and technology-driven innovation. Across a range of advisory, consulting, outsourcing, and digital services, we create scalable, innovative solutions that help our clients outwit complexity and position them for future growth and success. The company has more than 16,500 professionals in over 55 locations globally. Guidehouse is a Veritas Capital portfolio company, led by seasoned professionals with proven and diverse expertise in traditional and emerging technologies, markets, and agenda-setting issues driving national and global economies. For more information, please visit Guidehouse.

 guidehouse.com/services/cybersecurity

 [@GHTech Solutions](https://twitter.com/GHTechSolutions)

 linkedin.com/showcase/guidehouse-technology-solutions/