

Introduction

In an increasingly interconnected global economy, supply chain risk management and corporate relationships have emerged as critical concerns for governments worldwide. The United States, with its extensive network of international trade relationships, faces unique challenges in safeguarding its supply chains against various threats, including fraud, illicit trade, and national security risks. From an intelligence and investigation standpoint, corporate entities have emerged as common proxies for illicit activity, to include money laundering, sanctions evasion and espionage. As a result, publicly available data has emerged as a critical resource for investigating corporations, associated personnel and their respective relationships.

Nonetheless, there are significant barriers to harvesting and making sense of the publicly available data most useful to unraveling illicit or adversarial networks. Corporate and individual tax registrations, patent and trademark filings, environmental permits, court cases, and import-export data from local authorities all over the world contain information on control and ownership relationships between persons and companies, as well as individual identifiers and family tree information. Additionally, much of the critically important information is represented in unstructured, non-machine readable images, often in foreign languages, requiring a capability to convert this disparate, unstructured data into structured data.

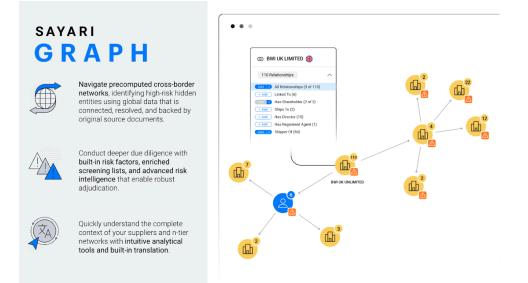
In response to these challenges, Sayari has automated the collection, translation and curation of these data sets. Using this data, the **Sayari Graph** and **Sayari Map** platforms leverage graph technology to map relationships of people and companies across disparate datasets and jurisdictions in order to free up analysts and investigators to focus on higher-level questions. Both platforms provide answers to key regulatory questions such as beneficial ownership and upstream supply chain risk, all while providing access to original source documents and offering the ability to export all data and documents for inclusion in analyses and internal reporting.

The Need for Advanced Supply Chain Risk Management

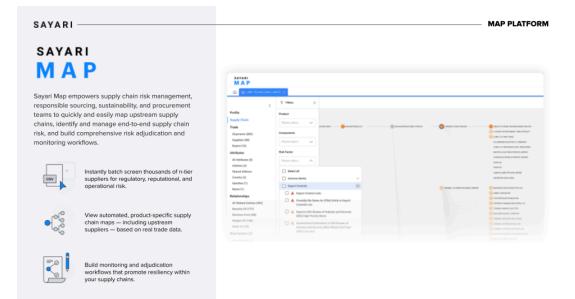
The complex nature of modern supply chains, characterized by multiple tiers of suppliers, global sourcing, and complex logistics, amplifies the vulnerability of critical industries to various risks. These risks encompass not only disruptions due to natural disasters or geopolitical tensions but also the impact of illicit activities such as counterfeiting, sanctions evasion efforts, smuggling, and money laundering. Given these multifaceted risks, traditional approaches to supply chain monitoring and management are no longer adequate, necessitating the adoption of innovative solutions that leverage big data analytics and network analyses.

Sayari Graph and Sayari Map:

<u>Sayari Graph</u> is a powerful entity resolution and analytics platform that leverages publicly available information and graph technology to map relationships of people and companies across disparate datasets and jurisdictions, automating key steps of data collection and processing in order to free up analysts and investigators to focus on higher-level questions. It also provides answers to key regulatory questions such as beneficial ownership, all while providing access to original source documents and an audit trail. Leveraging proprietary advanced algorithms and data visualization tools, Graph empowers investigators to uncover hidden relationships, conduct cross-border network discovery, and automatically flags tailored risk insights, thereby facilitating thorough investigations and proactive risk mitigation strategies.



<u>Sayari Map</u> empowers supply chain risk management, sourcing, sustainability, and procurement teams to quickly and easily map upstream supply chains, identify and manage end-to-end supply chain risk, and build comprehensive risk adjudication and monitoring workflows. Sayari's comprehensive datasets underpinning both Map and Graph also allows investigative teams to thoroughly and efficiently perform due diligence on suppliers, vendors, distributors, customers, and other third parties. By providing visibility into cross-border customer, distributor, and reseller networks, Sayari helps importers and exporters forestall regulatory or security risks and play a proactive role in the nation's overall security.



Effective supply chain risk management is essential for safeguarding critical infrastructure, mitigating vulnerabilities, and ensuring the continuity of operations. Sayari Graph and Map can play a crucial role in this process by enabling government agencies to:

- Identify High-Risk Entities: By mapping out supply chain networks and analyzing ownership structures, Sayari Map can identify high-risk entities involved in procurement, manufacturing, and distribution processes. This includes entities with ties to sanctioned countries, criminal organizations, or entities suspected of unethical practices.

- Assess Supply Chain Resilience: Sayari Map facilitates the evaluation of supply chain resilience by identifying dependencies, vulnerabilities, and potential single points of failure within complex networks. By understanding these interconnections, agencies can proactively address weaknesses and develop contingency plans to mitigate disruptions.
- Monitor Compliance and Due Diligence: Government agencies can utilize Sayari Map and Graph to monitor compliance with regulatory requirements and conduct due diligence on suppliers, contractors, and partners. By cross-referencing corporate data with Sayari's watchlists and sanctions databases, agencies can identify potential compliance violations, illicit activities, and other red flags.

Applications in Government Investigations and Intelligence Analysis

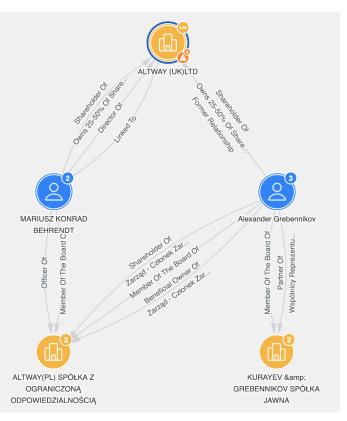
Sayari Graph offers an invaluable tool for law enforcement investigations and intelligence analysis by providing a comprehensive platform to map and analyze complex relationships across global datasets. This capability enables analysts to uncover hidden connections between entities such as individuals, businesses, and organizations - thereby identifying illicit or adversarial networks involved in activities such as money laundering, terrorism financing, and transnational crime. By integrating disparate datasets from diverse sources, including public records, financial documents, and corporate registries, analysts can use Graph to gain a holistic understanding of these networks' structures and operations. Whether a Mexican cartel or Chinese front companies, this network analysis enables agencies or policymakers to formulate targeted strategies to disrupt illicit or adversarial activities most effectively. Moreover, by using only publicly available information, Sayari Graph facilitates collaboration by enabling the sharing of intelligence and analysis in real-time, thereby enhancing interagency efforts.

Case Study: Trade Records Demonstrate Sensitive Technology Transfer to Sanctioned Russian Companies

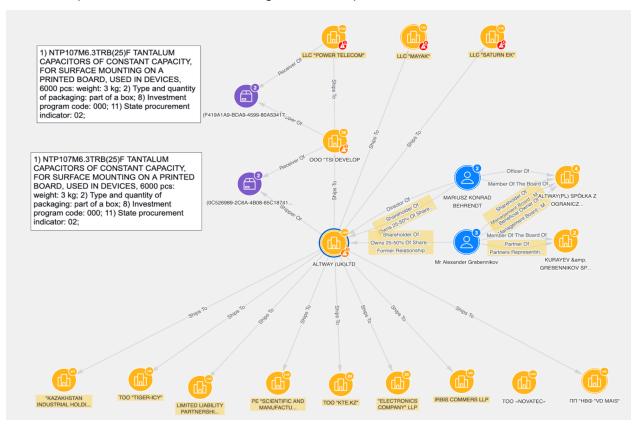
<u>Context</u>: ALTWAY UK LIMITED is a UK-domiciled wholesaler of electronic and telecommunications equipment. Since Russia's invasion of Ukraine, the company has shipped semiconductor components directly and indirectly to Russia, including to sanctioned entities. The company and its trade network provide a representative example of Russia's sophisticated sanctions evasion networks, but also reveal how public data can illuminate these cross-border evasion techniques.

<u>Ownership Structure and Trade Relationships:</u> The company was formerly owned by Belarussian national ALEXANDER GREBENNIKOV. Shortly after Russia's invasion of Ukraine, ownership was transferred to Polish national MARIUSZ KONRAD BEHRENDT. The two individuals are both controlling parties of a similarly named Polish company, ALTWAY (PL).

Since April 2022, ALTWAY UK LIMITED has sent hundreds of shipments of BIS high priority items, directly and indirectly, to Russia and sanctioned Russian entities. While the volume of shipments sent directly to sanctioned Russian entities declined in the first few months after Russia's invasion, the volume of shipments to 3rd party countries like Kazakhstan and Uzbekistan increased. These Kazakh and Uzbek companies sent similar shipments (i.e. same products, weight) to Russia and to sanctioned Russian companies.



ALTWAY's transshipment through Uzbekistan and Kazakhstan is a representative example of how Russia has increasingly relied on intermediaries to evade sanctions. A snapshot of ALTWAY's dual use good transshipment can be found below:



Conclusion

In conclusion, the integration of Sayari Graph and Map into the US Government's analytic tool kit for supply chain risk management and intelligence/investigative efforts has the potential to enhance national security, protect critical infrastructure, and safeguard the integrity of supply chains. By leveraging advanced analytics and data-driven insights, agencies can identify and mitigate risks, investigate illicit activities, and strengthen regulatory compliance across global supply chains. As threats continue to evolve in an increasingly complex environment, Sayari Graph and Map offer a powerful capability for government agencies to adapt and respond effectively to these emerging challenges.