NUCLEUS RESEARCH

CONTROL TOWER TECHNOLOGY VALUE MATRIX™ 2024

ANALYST
Charles A. Brennan

THE BOTTOM LINE

In 2024, Nucleus found that vendors have enhanced control tower solutions to address global supply challenges such as rising air freight costs, the aluminum shortage, and logistics bottlenecks. These improvements include introducing and enhancing tools like multi-tier supplier discovery, bill of material traceability, checkpoint geo-fencing, resolution frameworks, and generative AI assistants. Leaders in the 2024 Control Tower Value Matrix include e2open, Infor, Kinaxis, and One Network Enterprises, a Blue Yonder Company.

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ACCELERATOR

LEADER

One Network Enterprises

Alloy

Aioneers

Kinaxis

Infor

Coupa

E2open

Elementum

Greater Usability ▶

Elemica

o9 Solutions

ShipitSmarter

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CORE PROVIDER

EXPERT

Better Functionality ➤

OVERVIEW

At its core, control tower technology is designed to gather and visualize supply chain data, analyze the effects of disruptions across interconnected areas, and provide actionable recommendations, enabling cost-effective adjustments to supply chain plans before disruptions occur. Comprehensive control tower solutions monitor supply chains from multi-tier suppliers to last-mile delivery, allowing organizations to gain insights into supplier

production schedules, inventory levels at distribution centers, and real-time shipping statuses. This visibility helps organizations avoid or reduce operational silos and collaborate directly with trading partners, ensuring that decisions consider the full scope of the supply chain. For instance, when transportation delays are detected, the control tower can immediately prioritize affected orders, simulate response scenarios, and recommend actions like rerouting shipments or adjusting production schedules. Similarly, if a supplier faces delays, the control tower solution assesses the ripple effects on manufacturing timelines and delivery schedules, offering actionable insights such as identifying alternative suppliers or adjusting order quantities to address bottlenecks effectively. Additionally, control tower solutions offer analytics that identify opportunities for network design optimization by modeling upstream and downstream impacts on alternative routes, product mix, and supplier options, further enhancing the efficiency and resilience of the supply chain.

In the 2023 Control Tower Technology Matrix, Nucleus highlighted the rise of control tower solutions in response to global disruptions and industry trends. Vendors focused on mitigating transportation disruptions caused by driver shortages and geopolitical risks, while ESG tracking became increasingly prominent, with control towers incorporating emissions data to align with sustainability goals. The integration of Generative AI and large language models (LLMs) advanced control tower capabilities by providing trend analysis, automating responses, and improving communication, which reduced errors and increased efficiency.

In 2024, the evolving landscape of supply chain challenges, such as rising air freight costs, the ongoing aluminum shortage, and bottlenecks at critical transit points like canals and bridges, has driven software vendors to enhance control tower capabilities. To address these challenges and the broader supply chain challenges, Nucleus found that vendors have improved and introduced tools like multi-tier supplier discovery and relationship mapping, bill of material (BOM) -level traceability, geo-fencing at critical maritime points, LLM assistants, and resolution modeling.

For instance, tools like multi-tier supplier discovery and relationship mapping enable organizations to identify alternative suppliers and understand the interdependencies within their supply chain, which is crucial during material shortages like the aluminum crisis. BOM-level traceability allows companies to track the specific components affected by supply disruptions, enabling more precise adjustments to production plans. Geo-fencing at critical maritime points provides real-time monitoring of goods moving through vulnerable supply chain nodes, such as canals and bridges, helping companies detect delays early and reroute shipments to reduce shipping delays and costs.

Organizations have enhanced generative AI assistants in Control Tower solutions, improving multi-modal and multi-nodal interactions by integrating transactional and external data into their models. These enhancements enable users to query questions beyond their enterprise, receive immediate recommendations during disruptions, and consider broader supply chain

dynamics such as market shifts and supplier performance. Additionally, vendors have enhanced their resolution frameworks by incorporating root cause assignment and analysis features. These updates provide users with real-time alerts for at-risk or delayed shipments and proactive resolutions. This allows users to assign tasks to internal or external stakeholders, track the resolution process, and contribute to root cause analytics, improving overall responsiveness and accountability in managing supply chain disruptions.

In addition to these advancements, organizations remain committed to improving their ESG capabilities, focusing on tracking and tracing capabilities that drive better and more sustainable product sourcing. As sustainability continues to be a critical priority, control tower solutions are increasingly equipped with tools that allow companies to monitor and report on the environmental impact of their supply chains, ensuring alignment with global sustainability goals and regulations.

Vendors have also made continuous investments through partnerships and acquisitions to enhance the integration between their systems and the broader network of supply chain partners. These efforts focus on improving the interoperability of their platforms, facilitating smoother collaboration, data exchange, and decision-making across the supply chain ecosystem. This enhanced connectivity strengthens relationships with partners and contributes to a more responsive supply chain that is better equipped to meet the demands of an evolving global market. Analysts have observed vendors enhance their control tower solutions with improved capabilities to learn from past disruptions and outcomes. These advancements allow control towers to recognize disruption patterns better, refine predictive algorithms, and adapt recommendations based on historical data and changing conditions. By continuously learning and improving, control towers are evolving into closed-loop systems that respond to and anticipate disruptions.

In this Value Matrix, vendors are positioned according to the relative usability and functionality of their respective solutions, as well as the value that customers realized from each product's capabilities (Nucleus Research X222 – Understanding the Value Matrix – December 2023) and presented as a snapshot of the current market rather than an empirical ranking of vendors. The arrows indicate perceived momentum in the indicated direction with respect to usability and functionality. Positioning and momentum are informed primarily by conversations with end-users, along with the most recently released capabilities/features and areas of vendor investment.

LEADERS

Leaders in the 2024 Control Tower Technology Value Matrix include e2open, Infor, Kinaxis, and One Network Enterprises, a Blue Yonder Company.

E2OPEN

E2open is a leader in the 2024 Control Tower Technology Value Matrix. With its headquarters in North America and offices throughout Europe, Asia-Pacific, and South America, e2open serves various industries. These sectors include Manufacturing (which includes High Tech) and Industrial (which supports Aerospace and Defense, Automotive, Oil and Gas, and Pharmaceutical), Logistics and Transportation (which includes Ocean Carriers, Over-the-Road carriers, Air, and Rail), and Consumer Goods (which includes Apparel & Footwear, CPG, Food and Beverage, and Retail).

The Control Tower features of e2open's supply chain management platform span global trade, logistics, planning, distribution, and supply. Using e2open's platform, customers may expedite operations, increase partner visibility, and gain data-driven insights. The e2open platform's core components include the Harmony Unified User Experience, e2net Open Partner Network, planning, execution, and global trade applications. E2open's platform normalizes internal and external data feeds to guarantee that partners and operators always view and work together on the same integrated data model.

E2net is a network of over 480,000 manufacturing, logistics, and distribution partners that facilitates effective information sharing by creating reusable connections, improving visibility across the network, and establishing new alliances. E2open automatically alerts users to detect interruptions, ensuring a supply chain that withstands shortages and delays. Across the whole supply chain, including internal and partner operations and goods in transit or held at different nodes, E2open's supply sensing capabilities measure material shortages and service deficiencies over time.

When scheduling transportation for any mode in any region, firms can lower their greenhouse gas emissions by utilizing e2open's Environmental, Social, and Governance (ESG) capacity. Shippers can use this feature to balance cost, lead times, and emissions when planning or carrying out freight moves. They can also evaluate carbon emissions for carriers and routes and make ESG-informed booking decisions. The company also gave organizations visibility into potential disruptions caused by extreme weather and improved serialized inventory tracking to minimize waste and obsolescence. In 2023, e2open deepened its network coverage across all supply chain applications with updates to analytics capabilities that better align rebate and incentive programs with corporate goals.

Recent product updates and announcements include:

- Over the past 12 months, e2open enhanced its Supply Chain Control Tower resolution framework, including orchestrated root cause assignment and analysis features. These updates give users real-time alerts on at-risk or delayed shipments and propose resolutions. The feature allows users to assign tickets to internal or

external stakeholders, track the resolution process, and contribute to root cause analytics.

- E2open recently launched Supply Network Discovery, enabling brand owners to perform multi-tier supplier discovery, relationship mapping, and BOM-level traceability. This tool supports due diligence and partner impact assessments, improving supply chain risk mitigation and compliance with ESG-oriented regulations across expansive supply networks.

- Over the past 12 months, e2open achieved Catena-X certification, solidifying its role as a supply chain management leader in the automotive industry. E2open was the first supply chain software provider outside the founding Catena-X members to achieve certification. A major automotive company selected e2open to use Supply Network Discovery and the Catena-X ecosystem to map and mitigate multi-tier supply risks, such as anti-forced labor compliance requirements.

INFOR

Infor is a leader in the 2024 Control Tower Technology Value Matrix, recognized for its Infor Nexus Control Center. The vendor serves the following industries globally: consumer goods, fashion, automotive, technology, manufacturing, hospitality, healthcare, finance, construction, and distribution. Organizations can coordinate supply chain management across international multi-enterprise operations with the help of the Infor Nexus Control Center. By enlisting trading partners through one-to-many links to the nth tier, Nexus provides a real-time visualization of the whole supply chain. With the help of collaborative execution, intelligent decision support, and predictive analytics, Infor Nexus enhances and automates Control Tower decision-making. Transportation procedures are accelerated by the Control Center, which adjusts distribution and purchase schedules and instantly recognizes and addresses disruptions. Infor sets itself apart by leveraging AI with the Infor Nexus network to detect exceptions, identify bottlenecks, and suggest solutions to balance supply and demand while maximizing profit. With visibility to the first mile of international transportation, shippers can monitor goods from supplier origin through CFS to port, addressing delays and shortages earlier in the process. Harbor Dwell Analytics provides users with insights into average dwell times and trends at ports, enabling better dray and truck capacity management to mitigate disruptions. The Control Center embedded operational analytic dashboards allow users to act on critical metrics quickly.

Recent product updates in the past 12 months:

- Over the past 12 months, Infor Nexus deployed geo-fence monitored zones at critical maritime transit points and chokepoints, including the Suez Canal, Red Sea, Panama Canal, South Indian Ocean, and Cape of Good Hope. These zones help

users monitor vessel movements, detect when shipments are not moving as expected, and provide alerts when vessels enter prohibited zones or are idling.

- Infor Nexus recently introduced a Network Dwell Map Layer, allowing users to view current harbor and port of discharge dwell times based on global network data and their shipments. This feature helps customers plan around port congestion and compare their performance against the broader Infor Nexus community.

- In the last 12 months, Infor Nexus enhanced flow visualization by displaying global transactional flows in map pie graphics instead of flow lines. This update reduces visual noise and gives users more precise insights into the status of their supply chain, making it easier to identify potential delays or issues.

- Infor Nexus introduced new non-event detection alerts that trigger when a process does not occur as expected. Users can now set monitors for missed delivery events, missed ex-factory events, and delayed receipts, helping them detect issues that could impact inventory availability compliance or result in compliance.

- Over the past year, Infor Nexus leveraged process mining of shipment lifecycles with a new graphical interface, allowing users to identify trends, detect anomalies, and create idle process monitors. This feature helps users set thresholds for monitors based on actual data flows, reducing the need for continuous rule updates.

- Infor Nexus launched a Carbon Emissions Monitoring dashboard, enabling users to estimate transportation carbon emissions. This helps them factor environmental impact into planning and sourcing decisions.

- Infor Nexus enhanced its Control Center Recommendation Engine (CCRE) to offer recommendations for preventing predicted future shortages. The system provides actionable insights for expediting, redirecting, splitting supply orders, reprioritizing shipments, and transferring inventory, with an improved user experience to see impacts and recommended actions.

- Infor Nexus introduced the Map and Trace product, enabling companies to map their multi-tier supplier networks and trace products across those tiers. This tool helps provide documentary evidence to support product claims and respond efficiently to regulatory requirements like the UFLPA.

KINAXIS

Kinaxis is placed as a leader in the 2024 Control Tower Technology Value Matrix recognized for the Kinaxis Maestro platform. The vendor delivers supply and demand planning, S&OP/IBP, inventory management, production planning and scheduling, transportation management, order management, and command & control solutions for customers in the

automotive, aerospace and defense, consumer goods, high-tech, industrial, life sciences, and retail verticals. Combining internal and partner data sources, Kinaxis helps businesses manage risk, monitor delays and stockouts, and orchestrate planning and execution. It bridges the gap between supply chain planning and execution by providing end-to-end supply chain visibility. Users can automatically adjust production, distribution, inventory, order in transit, and financial plans in response to disruptions as they occur by utilizing the Maestro platform. Planners can also create automated decision triggers based on internal and external indications, which makes supply chain decisions actionable. In addition, the platform comes with several pre-configured API connectors that make it easier to integrate it with external apps that supply chain partners frequently use. Its Enterprise Scheduling functionality allows organizations to create and manage globally integrated production schedules for various plant layouts.

Organizations also benefit from Kinaxis's integrated supply chain execution capabilities, combining transportation management, order management, and returns management with supply chain planning. This integration enables organizations to orchestrate supply chain activities from planning to delivery, accommodating multi-year and down-to-the-second execution processes that span B2B, B2C, and D2C business models. The Sustainable Supply Chain feature allows companies to incorporate emissions data into the Kinaxis Maestro platform, enabling planners to design scenarios that project and simulate supply chain-related environmental impacts in real time. The Kinaxis Maestro platform is available on the Google Cloud and Microsoft Azure Marketplaces.

Recent product updates and announcements include:

- On June 18, 2024, at Kinexions, Kinaxis announced the Maestro platform, an evolution of RapidResponse designed to bring end-to-end orchestration by integrating AI into supply chain processes. Maestro unifies supply chain planning and execution, enabling organizations to manage everything from long-range strategic planning to sub-daily, minute-to-minute execution of orders in a single platform. Maestro integrates independent systems into one common platform, utilizing a unified data fabric to apply AI capabilities across all data within the environment. The platform incorporates workflow decision intelligence across the entire capabilities stack, enhancing real-time decision-making and operational efficiency.

ONE NETWORK ENTERPRISES, A BLUE YONDER COMPANY

In the 2024 Control Tower Technology Value Matrix, One Network Enterprises, a Blue Yonder company, is ranked as a leader recognized for its flagship Control Tower solution and supply chain management platform. One Network serves several industries, including consumer goods, retail and hospitality, life sciences, automotive and industrial manufacturing, high-tech, logistics services providers, defense, and humanitarian aid. The

platform's many-to-many (or hub-to-hub) network core, which enables collaboration, orchestration, and adaptive execution across thousands of suppliers, carriers, distributors, and customers, sets it apart. The platform provides capabilities for Optimized Execution, examining demand, inventory, and capacity at rest and in motion, and extending beyond the enterprise to identify and act on chokepoints in operational flow.

The Intelligent Control Tower from One Network makes prescriptive decisions based on an ML recommendation engine. It anticipates and keeps an eye out for anomalies throughout the supply chain ecosystem and instantly adjusts plans and tasks for execution. Operators can plan and synchronize upstream and downstream activities across multiple supply chain tiers from a single application view because of the natural integration between the control tower, planning, and execution solutions. A single data model and unified platform that combine the data stream from the multi-partner network serve as the foundation for the Intelligent Control Tower. In addition, the platform stands out due to its cooperative data sharing, independent decision-making, embedded scenario planning, machine learning-powered decision support, and control. Using intelligent agents, users can automate various supply chain tasks and integrate outside data into their decision-making processes. For those who want to leverage tailored processes or their own data science, the Developer Network offers the capacity to modify and create multi-party applications within the platform.

On August 1, 2024, Blue Yonder completed its acquisition of One Network Enterprises. This move expands Blue Yonder's capacity to encompass a multi-tiered, multi-party network approach to supply chain operations. This report will offer the capabilities evaluated as Blue Yonder's Command and Control Center. The name reflects the solution's ability to extend beyond visibility to take action against supply and demand shifts and disruptions.

Recent product updates and announcements include:

- Over the past 12 months, One Network introduced the AI Assistant, a natural language chatbot enabling multi-modal and multi-nodal interactions with the control tower. It facilitates problem-solving at multiple levels, integrating data from transactions and external sources. This AI-based Assistant leverages configurable widgets, providing data visualizations and auto-generated actionable prescriptions if intervention is warranted. Activated by a "NEO It" button, it identifies when and how to address disruptions and at-risk scenarios.
- One Network recently released extensions to its low-code environment, including Plasma Pipelines. It enables citizen developers to configure inbound and outbound data transformations, including complex schedules, requests to external systems, and a test environment before production. Plasma is used for rules-based approval routings, bots for data gathering, partner engagement, and self-service analytics.

- One Network introduced AI Agents, pairing intelligence use cases with a peripheral nervous system. Focused areas of development include Risk, Sustainability, and Chain of Custody. Within the logistics framework, One Network also released a NEO Agent for shipment consolidation based on container utilization.
- Over the past 12 months, One Network released a Risk Framework that fuses internal planning and transactional data with market signals. Leveraging an embedded Digital Twin, it includes dashboards to project the impact of potential events and remains agnostic to data sources. The Risk Review Workbench allows users to view macro risks or filter by dimensions such as geography, lane, item, and time horizon.
- One Network introduced Lane-based Hyperbots, leveraging an ML-based framework that learns from past behavior to prescribe best-fit equipment and autonomously automate carrier confirmation. It considers capacity around weight, volume, quantity, and space.
- One Network enhanced its platform UI/UX, ensuring consistent access to the Recommendation Engine and more intuitive configurable experiences. This included expanding the Widget Library with additional visualization options like gauge charts.
- One Network introduced a new capability for Impact/Root Cause Analysis, enabling users to assess which variables most impact objective attainment. This supports rapidly creating mitigation strategies across various levers rather than focusing on a single functional capacity.
- One Network became an early active voting member of the Scheduling Standards Consortium (SSC), supporting the vision of simplifying system integration across fragmented ecosystems. This included offering standards-based Booking APIs for automated appointment scheduling processes.
- One Network made key enhancements to the Supply Chain Core (SCC), including the approval framework and allowing partners to manage item substitutions within an agreed-upon collaborative process.
- One Network extended shelf-life capabilities within the Chain of Custody for end-to-end visibility and actionability against expiry dates. This supports lot and serial control, incorporating shelf-life constraints in Multi-Echelon Inventory Optimization (MEIO) to establish inventory targets reflecting in-stock objectives within lead time. It also can be leveraged in support of industry-specific regulatory requirements.

EXPERTS

o9 Solutions and SAP are experts in the 2024 Control Tower Technology Value Matrix.

O9 SOLUTIONS

In this year's Control Tower Technology Value Matrix, o9 Solutions is recognized as an expert. o9 Solutions serves organizations in the automotive, aerospace and defense, consumer goods, energy, food and beverage, high-tech, manufacturing, medicine, life sciences, pharmaceutical, retail, transportation, and telecommunications industries. Customers may track orders, inventory, supply, and demand in real-time using o9 Solutions' Control Tower solution. To match supply and demand at reasonable service levels and profit margins, o9 Control Tower integrates with IoT streams, trading partners, and transportation visibility platforms to provide customers with real-time disruption detection, early warnings of possible stockouts or delays, and the use of AI/ML for exception resolution. Among o9's most significant features is its support for integrated business planning (IBP), which connects production, supply chain, and financial components for simpler collaboration. With o9 Solutions, alerts are generated using augmented transaction inputs for various supply chain aspects. Its event management feature assigns, tracks, and manages alerts related to external events across the organization.

With its partnership with Genpact, o9 introduced Planning-as-a-Service using Generative AI to improve customer supply chain efficiencies. Its partnership with project44 integrates o9 Solutions Control Tower data with project44's logistics data to help clients identify and mitigate supply chain risks. In collaboration with Samsung SDS, o9 Solutions provides Nexprime SCM Mobile to customers, a mobile view of the Digital Brain platform, allowing users to collect hyperlocal events for improved demand planning.

Recent product updates in the past 12 months:

- In July 2024, o9 Solutions enhanced its Digital Brain platform by incorporating LLM agents designed to improve the execution of complex planning tasks. These agents operate within the platform's Enterprise Knowledge Graph (EKG) to perform cross-functional exercises such as forecasting and root-cause analysis. By integrating data across various business functions, these agents provide more accurate and comprehensive planning, continuously improving through feedback. This enhancement aims to reduce value leakage by ensuring decisions consider impacts across the supply chain, finance, procurement, and other critical areas, ultimately leading to more effective business operations for customers.
- In April 2024, o9 Solutions incorporated Generative AI capabilities into its Digital Brain platform to enhance its Enterprise Knowledge Graph (EKG). This advancement converts tribal knowledge into digital knowledge, improving expertise levels and productivity across supply chain, procurement, finance, and sales functions. The GenAI-powered platform allows for a more accurate analysis of the plan versus actual deviations. It enables users to digitize their expertise through simple conversational methods, making critical knowledge accessible for informed decision-making.

- On April 8th, 2024, o9 Solutions formed a strategic partnership with Resilinc to enhance supply chain risk management for customers. This partnership integrates Resilinc's multi-tier supply chain risk data with o9's analytics solutions, providing joint clients greater visibility into their supply networks. Clients can now detect upstream risks earlier, evaluate what-if scenarios, and make data-driven decisions to mitigate risks and minimize disruptions, ultimately improving service levels and inventory reliability.

SAP

SAP is identified as an expert in the 2023 Control Tower Technology Value Matrix, primarily catering to large global organizations within the energy, finance, consumer goods, aerospace and defense, automotive, technology, manufacturing, healthcare, and government industries. SAP provides control tower capabilities with its SAP IBP solution, enabling forecasting, demand and supply planning, sales and operational planning (S&OP), and inventory optimization. SAP IBP can be implemented on the SAP HANA Platform and interface with SAP Ariba for supply chain cooperation and SAP IoT for analytics. The solution can access information from several sources, such as external and third-party systems, transportation management, planning and optimization (APO), and enterprise resource planning (ERP) systems, to obtain a more comprehensive picture. To produce recommendations for users. Additionally, SAP allows organizations to collaborate with external trading partners, helps with decision-making, and adds alarm systems based on deviations from business norms.

The SAP Sustainability Control Tower is a platform designed to help organizations manage their sustainability goals by integrating and centralizing data related to ESG factors. It allows organizations to record actual data instead of averages, pulling information from various sources, including SAP and non-SAP systems, to ensure accuracy and audit readiness. The platform supports reporting company-specific sustainability targets using predefined data models aligned with TCFD, ISSB, and CSRD frameworks. It enables organizations to calculate greenhouse gas (GHG) emissions, enrich data for reliable ESG metrics, and visualize performance through customizable dashboards. Users can set long-term sustainability goals, benchmark business units, and track progress against targets. Additionally, the platform automates the generation of ESG reports, reducing manual efforts and embedding sustainability insights into business processes.

ACCELERATORS

The 2024 Control Tower Technology Value Matrix accelerators include Aioneers, Alloy, Coupa, and Elementum.

AIONNERS

Aioneers is recognized as an accelerator in the 2024 Control Tower Technology Value Matrix, recognized for its AIO Platform. aioneers provides control tower support to mid-sized to large organizations in the automotive, manufacturing & equipment, consumer products, and pharmaceuticals & life science industries.

Its AIO Supply Chain Control Tower addresses complex supply chain challenges by integrating data from disparate systems, providing organizations with cross-functional supply chain transparency. The AIO Supply Chain Control Tower enables organizations to attain a single supply chain point of truth by integrating various data sources and mirroring the network's physical assets within the AIO Data Foundation. The platform provides near real-time insights into supply chain operations, from customer demand to tier-x suppliers. This visibility allows organizations to identify and address inefficiencies, respond to disruptions, and improve supply chain resilience. Organizations also cite aioneers' short implementation timelines and high customization capabilities as key selection factors for selecting the AIO Supply Chain Control Tower.

At the core of its platform, aioneers has established the Closed-Loop Problem-Solving paradigm, consisting of four steps: Analyze, Decide, Act, and Learn. Analyze, where the system identifies problems and their causes; Decide, where decision support tools generate and select optimal actions based on the analysis; Act, where these decisions are executed, ranging from short-term optimizations to long-term improvements; Learn, where the outcomes are evaluated, providing insights that improve future problem-solving. Incorporating this closed-loop methodology allows organizations to react to disruptions and adapt without extensive operator training. This continuous improvement cycle is crucial for maintaining efficiency and resilience in today's dynamic supply chain environments.

Recent product updates in the past 12 months:

- Over the past 12 months, Aioneers has concentrated on integrating artificial intelligence into its supply chain management technology to enhance automated decision-making and improve the quality of decisions. Their significant investment in generative AI has culminated in the development of a new product, AIO Supply Chain Intelligence. This product is designed to support the entire decision-making process within a single application, emphasizing accuracy, quality recommendations, and the ability to learn and adapt over time. AIO Supply Chain Intelligence aims to

streamline complex workflows and automation, offering a more responsive and intelligent tool for supply chain management.

ALLOY

Alloy is recognized as a core provider in this year's Control Tower Technology Value. Its Connected Planning & Execution Platform caters primarily to global retail organizations, including sectors such as consumer electronics, food and beverage, automotive, beauty and wellness, sporting goods, and clothing. Alloy's control tower feature, which offers real-time warnings and inventory visibility, is the foundation of its product line. Decision-making across the many nodes of a supply chain is streamlined for users with visibility into inventory locations and connectivity to real-time demand signals. Alloy uses a single dataset to connect diverse teams and trading partners by integrating retailer and distributor data with internal ERP data. By using the Alloy Data Platform, organizations can prevent interruptions and lessen their effects by enabling the early identification of inventory-related risks and changes in customer demand. The technology allows demand projections driven by the point of sale, allowing users to track their performance against expected customer demand and inventory standards. Alloy's demand planning and inventory control features for consumer brands include a Launchpad with preconfigured workflows and dashboards, transforming large amounts of data into actionable insights for sales growth, waste reduction, and cost savings, along with dashboards that offer insights into POS sales trends, lost retail sales, excess inventory, and performance versus plan.

Recent product updates in the past 12 months:

- On September 7th, 2023, Alloy announced the release of its predictive and generative AI features designed to help consumer brands address sales, inventory, forecasting, and supply chain management challenges. These new features allow companies to predict potential sales and inventory issues and receive prescriptive actions to prevent them, helping to avoid out-of-stock and OTIF fines. The platform integrates point-of-sale data with inventory and supply chain data to increase network visibility. Additionally, with simulations and AI-driven recommendations, organizations can make better allocation decisions, proactive warehouse stock management, and improved retail replenishment strategies. The new capabilities are built on Alloy's data platform, which harmonizes data from various sources, ensuring businesses can apply these AI tools to workflows quickly.

COUPA

This year's Control Tower Technology Value Matrix includes Coupa as an accelerator. Coupa supports organizations within the oil and gas, technology, retail, public sector,

manufacturing, media, financial, life sciences, insurance, healthcare, food and beverage, and consumer products industries. Organizations can create and modify supply chain policies, procedures, and structures using the Coupa Control Tower. An organization utilizing Coupa may effectively address intricate supply chain issues with scenario modeling. Additionally, by utilizing AI-enhanced decision-making, users may use Coupa to respond to supply chain disruptions, identify possible risks, and optimize supply chain performance. Coupa's CFO dashboard unveiled new platform updates for supply chain improvements. The CFO Dashboard gives finance leaders a clear view of spending transactions and trends, with actionable recommendations for better cash flow and savings. The AI Supply Chain Prescriptions help users select optimal supply chain strategies for savings and sustainability. Purchase Order Collaboration improves communication between buyers and suppliers for efficient order handling. The Scope 3 Travel Emissions Dashboard tracks business travel carbon emissions, and expanded Supplier Diversity Data helps companies meet supplier diversity objectives.

Recent product updates in the past 12 months:

- Over the past 12 months, Coupa has announced updates to its Total Spend Management Platform. These enable customers to model financial risks and evaluate potential supply chain risks, enhancing their ability to manage and respond to disruptions.
- Coupa's new Forecast Collaboration feature connects supply chain planners and suppliers to improve forecast accuracy, reduce inventory costs, and capitalize on demand opportunities.
- Over the past 12 months, Coupa recently introduced Supply Chain Visualizations for in-depth metric analysis, self-service reporting, and enhanced modeling capabilities. These allow teams to create digital twin models of their supply chains using a no-code, drag-and-drop interface.
- In 2024, Coupa released its "Bring Your Own Algorithm" (BYOA) feature, allowing data scientists to build more effective AI models, improving key performance metrics such as service levels, working capital, and return on assets. These innovations are part of Coupa's broader strategy to unify supply chain, finance, and procurement teams, driving business margins, productivity, and sustainability improvements.

ELEMENTUM

Elementum is placed as an accelerator in the 2024 SCP Technology Value Matrix. The vendor focuses on serving global enterprises of diverse scales across industries such as pharmaceuticals, consumer goods, chemicals, food and beverage, and technology. Customers can connect internal and partner data streams with the vendor's Elementum Orchestration platform, which runs natively on Snowflake. This allows real-time supply chain

visibility and coordinates planning processes with manufacturers, suppliers, and logistics. The capacity of Elementum's service to synchronize data across all network instances, providing users with a single source of truth, is a crucial component. By providing access to several external data streams, this integrated ecosystem helps users anticipate possible disruptions in the supply chain. Its benefits extend beyond simple data alignment. These include weather, geopolitical events, product availability, order status, and commodity prices. Elementum's primary advantage is its cloud-native design and integrated strategy, guaranteeing that all parties have instant data access throughout their partner and corporate networks. Its Data-Driven Workflow Platform on Snowflake's Data Cloud enables joint customers to automate processes across various supply chain functions and convert data into actionable insights by leveraging Snowflake's data integration capabilities.

CORE PROVIDERS

Core providers in the 2024 SCP Technology Value Matrix include Elemica, ShipitSmarter, and Viewlocity.

ELEMICA

Elemica is a core provider in the 2024 Control Tower Technology Value Matrix. In this year's Control Tower Value Matrix, Elemica is recognized as a core provider. Elemica supports organizations within the chemicals, oil and gas, pharmaceutical, and automotive industries. The Buy, Sell, Move, Assure, and See solutions from Elemica offer control tower capabilities, as it enables users to automate and digitize supply chain procedures, eliminate data silos, and communicate in real-time with both their supply chain partners and conventionally divided departments. Elemica's carrier integration enables transparent dock scheduling and automated transportation management, which are major factors in customer preference. Elemica leverages its relationships with suppliers to offer clients supplier insight, expedite the procure-to-pay process, and supply supplier QA/QC paperwork to assist with procurement and planning. Elemica users can automate the order-to-cash process using customer connection solutions, which centralize order documentation, digitize order management duties, and notify customers of updates and milestones.

SHIPITSMARTER

ShipitSmarter is a core provider in the 2024 Control Tower Technology Value Matrix. The supply chain management software vendor provides solutions to small-to-midsized Medical, Technology, and pharmaceutical businesses. A variety of solutions for carrier and freight

management, financial monitoring, fee and rate administration, reverse logistics, data management, and shipment lifecycle management are offered by ShipitSmarters Fulfillment Control Tower technology. ShipitSmarter helps businesses lower operating expenses, improve inventory management, and increase visibility throughout the shipment process by integrating with various systems, such as trade compliance platforms, ERP, and WMS.

To guarantee effective and economical shipping, ShipitSmarter transportation management solution includes booking, label printing, track & trace, fee and rate administration, and finance management. The platform considers performance, invoiced rates, and service levels when comparing incoming carrier bills to contracted agreements using the 3-way matching principle. This guarantees that payments correspond with the services rendered, removing superfluous costs. ShipitSmarter's 600+ carrier links, particularly with European shipping carriers, are one of its features. It provides a data-driven method for choosing the best carriers when paired with its carrier management features. Using integrated data links with local, national, and worldwide carriers, ShipitSmarter makes order management provide an automated alert system built into the platform that lets consumers see changes in shipping charges, service levels, weight dimensions, and delivery schedules.

VIEWLOCITY

Viewlocity is a core provider in this year's Control Tower Technology Value Matrix, providing control tower capabilities and real-time insights into the supply chain. Planners can take proactive measures to remove obstacles, encourage stakeholder cooperation, and enhance operational adaptability to create a more effective Supply Chain process by having insights about possible exception events. The vendor serves various industries, including manufacturing, retail, aerospace and defense, automotive and industrial, consumer products, technology, and third-party logistics. Viewlocity's use of lean Six Sigma methodology is one of the reasons why clients frequently look to implement it. Through the reduction of mistakes and waste in the supply chain process, this strategy helps businesses increase productivity. Customers can create links between collaborative planning, forecasting, replenishment software, inventory, and asset management with Viewlocity. This integration improves customer satisfaction levels and operational efficiency by reducing corporate expenses.