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### **Definitions**

### **▶** Supply chain orchestration (SCO):

Tools, capabilities, and processes that integrate internal and external data, define desired outcomes, and make whole-systems-oriented plans and exception management responses

Supply chain orchestration encompasses the cycle of "see, decide, act, and learn" in supply chains. Orchestration keeps each part in concert with the whole, supports process automation and management by exception, provides end-to-end visibility, and enables efficiencies by leveraging the power of computing to consider multiple variables and nodes simultaneously.

### **▶** Digital twin:

A digital representation of products, supply chain data (logistics, inventory, warehousing, demand plans, and forecasts), and processes that can be used for advanced scenario planning, supply chain responsiveness, automation, and, ultimately, orchestration

### Control tower:

A solution to integrate supply chain information within functional silos (e.g., logistics) to provide visibility and support transactional decision making

### Command center:

An interim step between control towers and full SCO

By linking a suite of applications to monitor the supply chain (such as visibility, chatbots, large language models, external data, monitoring, and track and trace), command centers can go beyond traditional control towers as a step on the maturity journey toward SCO.

## The Future of Supply Chain Orchestration



IDC predicts that by 2028, 35% of Global 2000 companies will use supply chain orchestration tools to integrate key suppliers and customers. This includes digital twin capabilities, which improve supply chain responsiveness by 15%.

### IDC notes several trends supporting this prediction:

- Supply chain organizations have been on a maturity path toward supply chain orchestration.
- ➤ To date, control towers have only carried the promise of integrating end-to-end operations. Though some "read the news," they aren't capable of acting on it.
- The next evolution of end-to-end integration and supply chain responsiveness will enable proactive modeling, reacting, planning, and visibility to move from reading the news to creating it.

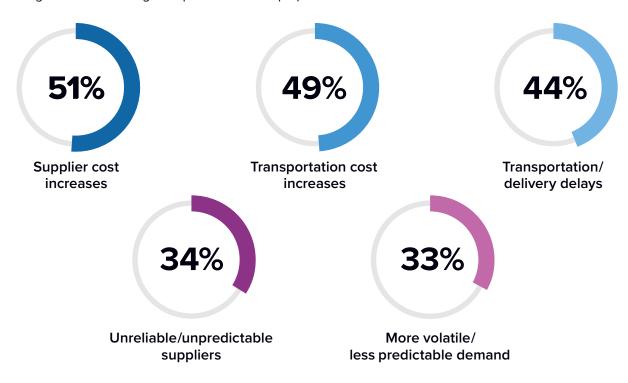
 $Source: \textit{IDC Future Scape: Worldwide Supply Chain 2024 Predictions}, IDC \ \#US50873823, October 2023 \ \#US50873$ 

Further, command centers integrate a suite of applications that offer a route to achieving full supply chain orchestration.

## Why Supply Chain Orchestration?

- ▶ **Disruptions, volatility, costs, and coming regulations** are driving a continued need for increased visibility, agility, and optimization.
- Supply chains have been on a maturity journey from siloed functions to shared visibility operated by control towers.
- Control towers to date have "read the news." Organizations are looking for more active, integrated management of supply chains to remove latency.
- ▶ **End-to-end SCO** is the goal of many organizations and will require more steps in organizational and technological maturity.

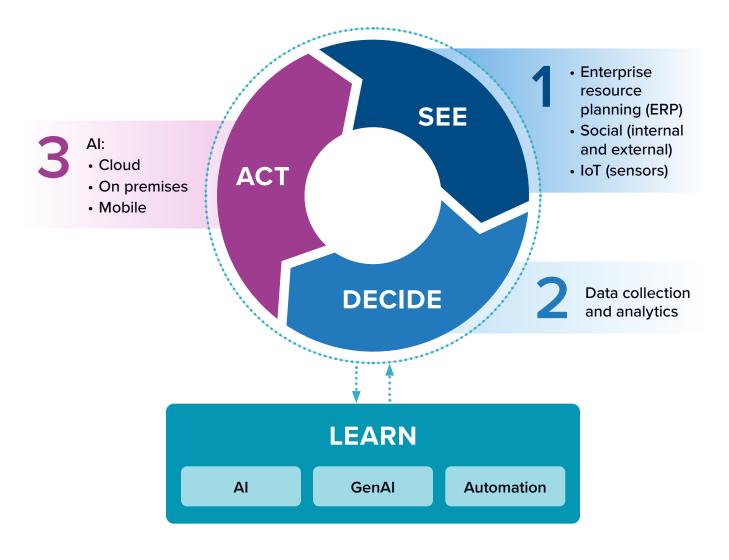
How have the various global disruptions impacted your supply chain this past year? (% of organizations ranking disruptions in their top 5)



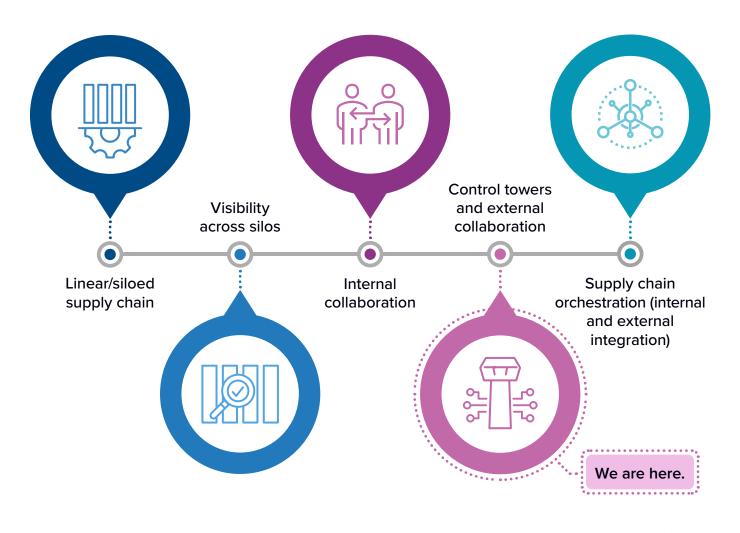


# The Supply Chain Orchestration Journey

Supply chain orchestration is an end-state goal that requires a maturity journey. As visibility increases, so does collaboration. **Advancements in control towers** and command centers increase visibility, integration, and collaboration on the path to achieving full orchestration.



# The Supply Chain Orchestration Journey (continued)



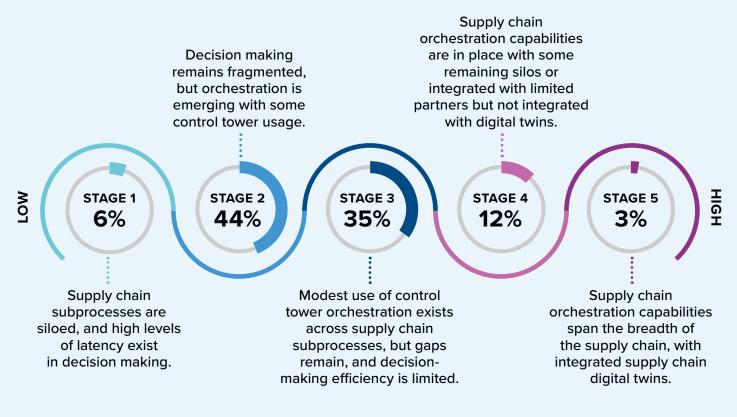
**Supply Chain Orchestration Maturity Journey** 

 $Source: IDC's \textit{ Charting the Journey from Point Control Towers to True Supply Chain Orchestration, IDC \#US47806522, November 2023 And Supply Chain Orchestration and Supply Chain Orche$ 



## The Supply Chain Orchestration Maturity Stages

- At the low end of the maturity scale is a linear view of the supply chain with latency between tasks and silos.
- As companies seek to improve visibility and increase collaboration across silos, they advance toward SCO.
- Increased complexity (integration, shared visibility, and collaborative decision making) has heightened requirements for control tower and command center capabilities.
- Very few organizations have achieved full end-to-end SCO; advancements in command center capabilities and future advancements in artificial intelligence and machine learning will continue aiding the maturity journey.



Source: IDC 2023



## Challenges to Supply Chain Orchestration



#### Cost:

Advanced SCO tools and processes come at a cost, but so do supply chain disruption and inefficiency. Continuing a progression to supply chain orchestration can help realize the benefits of efficiency and reduced disruption.



### Data and integration:

Don't neglect the criticality of quality data and integration solutions (internal and external).

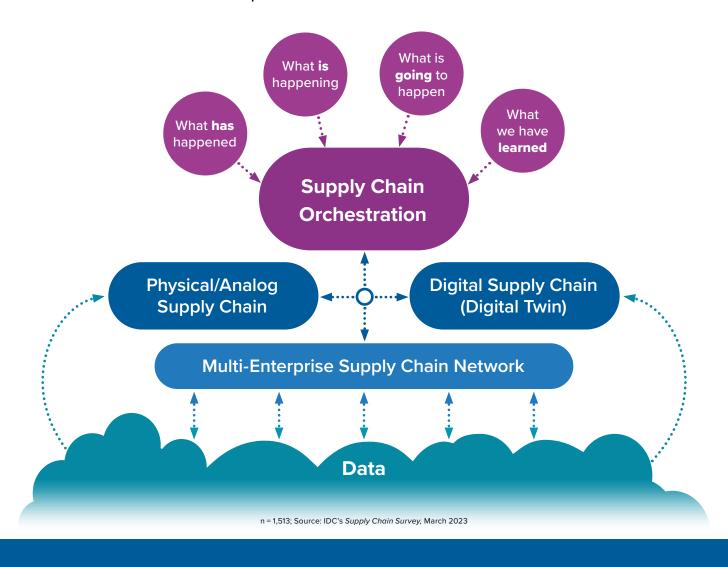


### **Business process and organizational maturity:**

Neglecting defined business processes and organizational skills will result in headwinds that delay the realization of ROI.

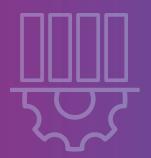
# A Progression of Control Towers: Integration with Digital Twins

Traditional control towers are giving way to **integrated digital twins with GenAl/LLMs beginning to appear,** requiring broader, more integrated tools to realize the full benefits promised.



Nearly one-third of companies identified supply chain digital twins and/or control towers as a top priority in either the next 12 months or the next three years.

## How Is a Command Center Different from a Control Tower?



Historically, control towers have been siloed solutions that "read the news."



Command centers integrate a suite of applications to take the next step toward end-to-end SCO.

Command centers are the logical evolution of control towers as enablers of SCO.

## Command Centers: Implementation

To achieve the benefits of command centers and, ultimately, supply chain orchestration, organizations will need to focus on **enablers and challenges.** 



### **Integration**

Whether internally or with the help of tech partners, end-to-end data (internal and external) will require integration.



### **Data quality**

All SCO tools, capabilities, and processes rely on sound data input and governance.



### Organizational skills/readiness

Orchestration will rely on the skills, collaboration, and cross-functional understanding of the organization to realize the benefits of SCO tools and data.



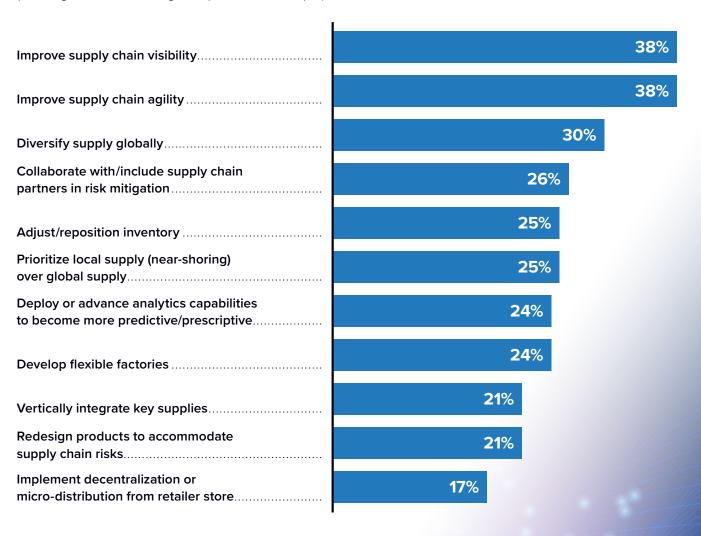
### **Alignment with partners and suppliers**

In some cases, partners have been slow to align with integration requirements to expose data, implement key integration, and collaborate.

# Command Centers Support Top Supply Chain Priorities

The top 5 priorities for reducing supply chain risk will all **increase complexity**, the need for collaboration, and the ability to manage across silos.

Overall, what steps are you taking to mitigate risk in your supply chain? (% of organizations ranking disruptions in their top 5)





# The Importance of Agility in the Supply Chain

Companies report they are seeking agility capabilities, which will ultimately result in increased complexity as well as increased integration and control. This will heighten the **need for command center capabilities.** 

Where is the main focus for improving/extending agility (the ability to react/respond effectively to disruptions) in your supply chain?

(% ranking item as a top 3 priority for agility)











Improve supply chain agility
was the second-highest priority to mitigate
supply chain risk.

Two of the top 3 responses to mitigating transportation-related supply issues were notable:

- Improved logistics contingency planning
- Better integration of warehousing and logistics





# External Data for Visibility, Agility, and Collaboration

Point control towers have focused on functional views, whereas command centers are necessary to incorporate multiple data feeds (both internal and external).

From a business collaboration perspective, where is the biggest opportunity for your supply chain?



With product design flexibility (e.g., sourcing options)



Upstream with suppliers (e.g., buy-side B2B collaboration)



With external logistics providers



Downstream with customers (e.g., sell-side B2B collaboration)



Upstream vertical integration (e.g., suppliers)



Downstream vertical integration (e.g., distribution and retail)

Supply chain visibility and external collaboration rank as the top 2 concerns during the next three years.

Environmental, social, and governance regulations are a top-5 concern for future challenges (including supplier and vendor collaboration).

**External collaboration opportunities** comprise nearly two-thirds of the top collaboration priorities for companies.





### **Essential Guidance**

As organizations seek end-to-end SCO, deeper integration and more responsive capabilities are required. This calls for:

- Integration across functions and with external data feeds
- Action-oriented capabilities and organizational skill sets
- Leveraging advanced capabilities (AI/ML, chatbots, and multi-application integration), including the preparation of skill sets/organization for use of GenAI/LLMs and modeling capabilities



## About the IDC Analysts



**Eric Thompson**Research Director, Global Supply Chain Planning, IDC

As a research director, Eric Thompson is a member of the IDC Worldwide Supply Chain Strategies Program. He is responsible for providing research, analysis, and guidance on key business and IT issues pertaining to manufacturing, retail, and healthcare supply chains. He currently leads the Worldwide Supply Chain Strategies: Planning and Multi-Enterprise Networks practice, providing fact-based research, analysis, and insight on best practices and the use of information technology to assist clients in improving their capabilities in these critical supply chain areas. This practice specializes in advising clients on supply chain demand planning, supply planning, sales and operations planning, and multi-enterprise supply chain networks.

More about Eric Thompson



Simon Ellis
Group Vice President, Manufacturing and Supply Chain, IDC

As a program vice president, Simon Ellis is responsible for providing research, analysis, and guidance on key business and IT issues for manufacturers. He currently leads the supply chain strategies practices at IDC Manufacturing Insights, an IDC industry research company that addresses the current market gap by providing fact-based research and analysis on best practices and the use of IT to assist clients in improving their capabilities in critical process areas. Within the supply chain practice, Simon is directly responsible for research in the supply chain planning strategies practice while also managing the supply chain execution strategies practice. These supply chain practices specialize in advising clients on supply chain network design, sales and operations planning, global sourcing (profitable proximity and low-cost sourcing), transportation, logistics, and more.

He also supports IDC Retail Insights IT strategies practices.

More about Simon Ellis

## Message from the Sponsor

## **opentext**<sup>™</sup>

Increasing the digital maturity of supply chain operations provides various benefits for organizations and is ultimately critical for staying competitive. However, too many organizations focus on individual tools and point solutions to improving specific elements of their supply chain instead of thinking about the overarching framework for how these capabilities come together and support one another.

OpenText Command Center is a solution that leverages OpenText's leading supply chain integration capabilities and offers a range of views into supply chain performance and partner collaboration. The solution also allows connecting any third-party or homegrown supply chain applications as part of a unified user experience, enables integrating data across applications, and supports day-to-day partner onboarding and community management activities to engage supply chain partners and drive solution adoption.

Learn more about OpenText Command Center and other digital supply chain solutions.

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