DATA SHEET

C3 AI Supply Chain Orchestration

Intelligent Supply Chain Planning Meets Seamless Execution

Autonomous

Autonomously build and continuously optimize plans with AI agents

Resilient

Predict disruptions with early warning and adapt in real-time to mitigate impact

Intuitive

Interact with AI agents in natural language driven and user-friendly interface

Scalable

Leverage a scalable AI-native platform to get results in weeks, not years

C3 AI Supply Chain Orchestration is an Enterprise AI application that provides supply chain planners and leaders with end-to-end visibility and advanced decision support. The application generates adaptive planning and execution strategies, empowers users to run scenarios via natural language, and recommends the most effective and least disruptive actions – unlocking unprecedented agility and precision across the supply chain.

Supply chain planning and execution processes are often fragile and disconnected, making them vulnerable to frequent disruptions such as demand shifts, supplier issues, and logistics delays. Plans become outdated as soon as they are created. Traditional S&OP and S&OE tools lack the agility and intelligence to keep pace with this volatility, leading to misaligned decisions, delayed responses, and suboptimal performance across the supply chain.

With C3 AI Supply Chain Orchestration, supply chain and manufacturing teams can proactively strengthen their supply networks. Users can automatically generate network-level production and supply plans that account for hundreds of operational constraints and business objectives such as improving on-time delivery, maximizing profit, or minimizing cost-to-serve. Users can run "what if" scenarios in natural language to evaluate the impact of disruptions or constraints and understand their downstream impact. The application then recommends the best course of action, considering operational feasibility and financial implications (e.g., prioritizing least costly and most responsive levers).

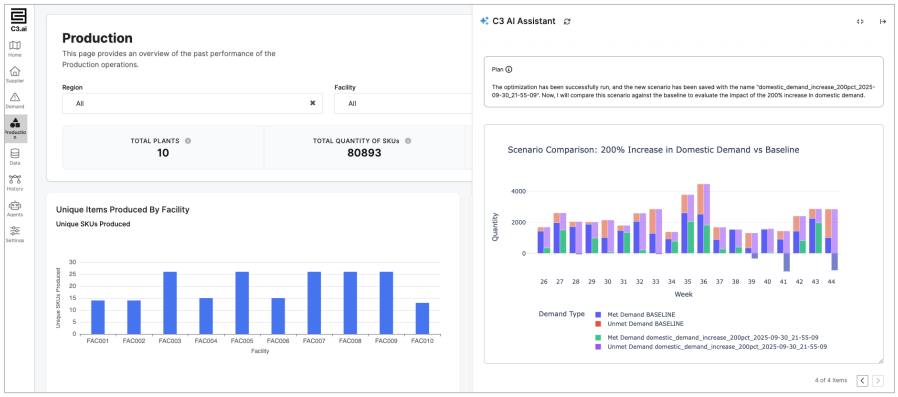

Figure 1. *Users interact with C3 AI Assistant, backed by intelligent AI agents to build what-if scenarios through natural language.*

Feature Summary

- **Unified supply chain digital twin** – Integrate enterprise and external data into a single consistent, end-to-end view of your supply chain with prebuilt connectors such as SAP, AWS, and Azure.
- **Intelligent AI agents** – Orchestrate AI agents such as demand plan optimizer, schedule optimizer, disruption agent, and scenario modeler to retrieve insights, reason across all data, and identify optimal solutions.
- **Advanced modeling & optimization** – Agents invoke simulation, AI/ML, and optimization techniques to deliver smart recommendations.
- **What-if scenario modeling** – Modify plans with a dynamic planning agent as conditions evolve. Create what-if scenarios on the fly, model combinations of constraints, and configure objectives.
- **Holistic supply chain insights** – Understand interactions across your end-to-end supply chain – demand, logistics, inventory, production, and distribution – as part of every decision.
- **Real-time monitoring** – Quickly identify deviations from operational plans to minimize impact & keep plans up to date.
- **Detailed execution plans** – Automatically build and change granular execution plans for each supplier, production line, distribution center, customer, and more as scenarios evolve.

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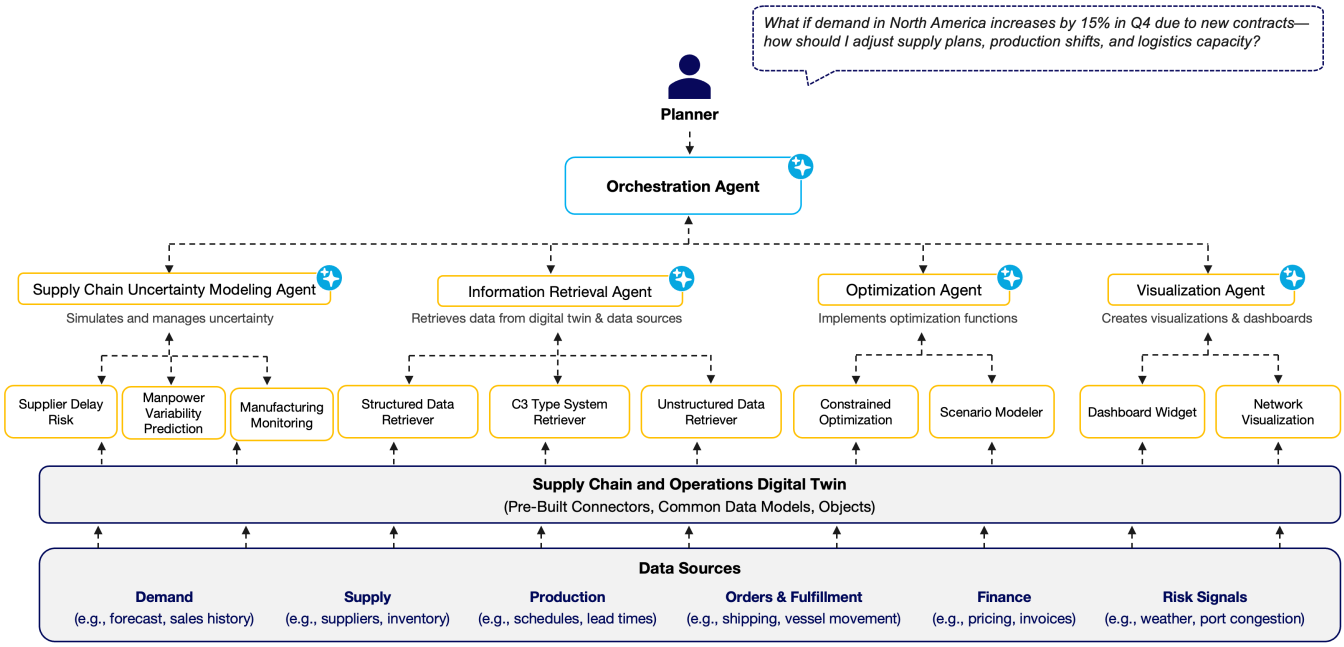

Figure 2. *C3 AI Supply Chain Orchestration leverages a unified digital twin, deep supply chain expertise, and a network of AI agents to deliver advanced decision support across the end-to-end supply chain.*

At the core of the application are three foundational elements: a unified digital twin, built-in supply chain domain expertise, and a network of intelligent agents. The digital twin integrates enterprise and external data across traditionally siloed systems - across demand (e.g., forecast, sales history, promotion), supply (e.g., suppliers, inventory, contracts), production (e.g., production schedules, capacity, lead times), orders and fulfillment (e.g., shipping, orders, vessel movement), finance (e.g., pricing, invoices), risk signals (e.g., weather, port congestion, tariffs) and more – into a single view.

C3 AI Supply Chain Orchestration applies built-in supply chain expertise and advanced agentic reasoning to continuously analyze planning and execution data. The application continuously monitors planning and execution data to identify misalignments across demand, supply, and logistics—such as supplier delays, transportation disruptions, and capacity constraints—and evaluates the impact of these problems across the network. By reasoning across interconnected processes, the application identifies risks, reveals interdependencies, and recommends actionable insights to maintain alignment and performance across the end-to-end supply chain.

Finally, C3 AI Supply Chain Orchestration orchestrates the network of AI agents through a centralized coordination layer that manages their interactions and execution flow. Each agent is specialized for a specific function, such as demand forecasting, supply planning, and scenario modeling and the orchestration layer sequences their activities, manages dependencies, and aligns outcomes across functions. This real-time coordination ensures consistency and resolves cross-functional trade-offs. Unlike traditional planning tools that rely on static workflows and siloed execution, C3 Agentic AI Supply Chain Orchestration delivers dynamic, adaptive collaboration across agents—allowing organizations to respond to change with greater speed, precision, and agility.

C3 AI Supply Chain Orchestration is designed to support key supply chain roles including:

- **Chief Supply Chain Officers** to align operations with business goals through AI insights and autonomous planning.
- **Planners** to access real-time data, simulate scenarios, and make informed trade-offs.
- **Operations Leaders** to adjust schedules, resolve bottlenecks, and manage disruptions.
- **IT & Digital Leaders** to accelerate scale-out of supply chain planning solutions and reduce manual configuration.

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The application empowers supply chain teams to manage all planning and execution activities in a single, connected process and drive continuous alignment:

Planning & Execution Activities	How C3 AI Empowers Supply Chain Teams
Demand Planning & Forecasting	Leverage existing demand plans as a starting point, while modeling the impacts of demand deviations from plans.
Supply Planning & Constraints Modeling	Model constraints and leverage a dynamic planning agent to create optimized supply & network level production plans.
Scenario Planning & Trade-off Analysis	Evaluate multiple plans using various criteria (e.g., cost, risk, service levels) and prior outcomes to support decision-making.
Consensus & Alignment Process (S&OP)	Share plans with stakeholders or agents and integrate feedback loops to finalize joint S&OP plan. Support meetings by creating generative AI based visualizations on the fly.
Execution Monitoring & Exception Handling (S&OE)	Track real-time execution (e.g., supplier risks, demand spikes, capacity issues) and detect deviations to adapt plans. Planning is an iterative process throughout execution.
Continuous Learning & Plan Optimization	Learn from performance gaps or successes and update models to improve future planning cycles.

C3 AI Supply Chain Orchestration utilizes a rich portfolio of supply chain agents and models:

	Planning (S&OP)		Execution (S&OE)	
Supply Chain Agents	Demand Plan Optimizer	Supply Planning	Production Schedule Optimizer	Procurement Compliance
	Demand Shaping	Transit and Distribution Planning	Multi-echelon Inventory Opt.	Supplier Collaboration / Portal
	Demand Forecasting	Consensus Planning	Fulfillment Optimization	Similar Part Analysis
	Hierarchical Reconciliations	Supplier Collaboration	EOQ Optimization	Agentic Claims Support
	Forecast Explainability	Capacity Planning Optimization	Route Optimizer	3P Freight Bidding Optimizer
	On-demand Model Training	Inventory Allocation Optimization	Truck Load Optimizer	Carrier Performance Scoring
	Demand Sensing	Fleet Asset Mix Optimizer	Network / Node Optimization	Carrier Portal
	NPI Planning	Assortment Optimization	Fleet Allocation Optimization	Control Tower
	Promotional Effectiveness	Modular Optimization	Pick Path Optimization	Supplier Risk Monitoring
	Network Production Planning	Customer Promise Optimization	Resilience Planning	Demand Risks Monitoring
	Flow Planning	Rough Cut Capacity Planning	Procurement Savings Identifier	Disruption Agent
	Financial Planning	Tariff Agent	Supplier Search	Should Cost Modeling
Common Agents	Scenario Modeler	Alerting	Anomaly Detection	Generative Visualizations
Supply Chain Models	Lead Time	Fill Rate	Out-of-stocks	Rate of Returns
	Throughput	Absenteeism	Material Availability	Freight Costs

Get started with C3 AI today to transform your supply chain planning & execution strategy.

Fast, Proven Results in Initial Production Deployment

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