



AI Agents for Supply Chain Execution

Automating detection and correction of
operational issues at scale

The Problem Isn't Knowledge. It's Scale.

Enterprise supply chain teams already know how to fix split shipments, shrink, labor inefficiencies, and stockouts. The challenge is executing these fixes manually across thousands of sites, shipments, and SKUs - manual execution doesn't scale.

\$1T+

Lost globally each year to stockouts and overstocks
(IHL Group)

40%

of stockouts are execution-driven, not true shortages.
(McKinsey)

3x

Higher cost to fulfill backorders vs. unified shipments
(Bain)

You Face the Same Supply Chain Challenges - Every Day

Manual execution creates compounding failures:



Stockouts
Events



Shrink &
Loss



Labor
Inefficiencies



Split
Shipments



Excess
Inventory

Beamup eliminates these failures by automating detection, diagnosis, and corrective action - continuously and at scale.

How Beamup Automates Execution at Scale

Beamup replaces manual analysis, spreadsheets, and reactive workflows with AI agents that operate continuously **across thousands of sites, shipments, and SKUs**.

1 Activate AI Agents Around Business Goals

Configure the agent, set confidence thresholds, and define metrics

Fulfillment Execution Agent

Agent Status

Active 

Success Metrics

OTIF %

Confidence Threshold



Dock-to-Stock Time

Low = more insights, higher noise. High = fewer insights, higher precision.

Split Shipment Rate

Define KPIs this agent will optimize for.

2 AI-Generated Insights with Business Impact

Generate insights with automated value impact and confidence scoring

Fulfillment Insights

ID	Summary	Agent	Facility	Value	Confidence	Status
IN-2223	East Coast warehouse bottleneck causing 2-day delays on 18% of orders	Fulfillment Execution	F14	\$127,000	89%	
IN-2237	Cross-dock inefficiency in West region increasing transit time by 1.5 days	Fulfillment Execution	F09	\$89,000	87%	
IN-2245	Inventory accuracy discrepancies in high-velocity SKUs causing stockouts	Fulfillment Execution	F03	\$67,000	94%	
IN-2256	Temperature fluctuations in cold storage causing 8% spoilage rate increase	Fulfillment Execution	F22	\$54,000	85%	

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Context-Rich AI Reasoning

Validate assumptions and follow reasoning to increase insight confidence.

Drivers to Validate

Help improve future confidence by validating these assumptions

Warehouse capacity is a primary constraint high impact



Delays are concentrated in specific product categories (heavy/bulky items)

high impact



Weekend processing contribute to Monday bottlenecks medium impact



Reasoning trace

How the agent arrived at this insight

 Detected anomalous gap between order placement and warehouse scan time

4

Drive and Learn from Corrective Action

Convert recommendations into tasks to drive resolution and agent learning

AI-Driven Resolution Strategies

Optimize Regional Fulfillment: Update shipment logic for Heavy/Bulky SKUs to be shipped from NYC warehouse to resolve capacity constraints.

Prioritize Heavy/Bulky SKU Flow: Update shipment SLA for High-Volume SKUs to prioritize categories currently facing the highest delivery delays.

Expand Weekend Processing: Increase Saturday/Sunday operational hours to eliminate recurrent Monday morning bottlenecks.

Tasks

Task 1: Route NYC-adjacent orders for SKU X to NYC Hub (Due: EOD).

Purpose-Built AI Agents for Supply Chain Execution

Stockout Prevention Agent

Predicts and prevents stockouts before shelves go empty

- 30% fewer stockouts

Scope:

Stores • DCs • In-Transit

Excess Inventory Agent

Identifies and corrects excess inventory before it becomes stranded

- 18% less overstock

Scope:

Stores • Suppliers • DCs

In-Transit Shrink Agent

Detects in-transit losses and systemic risk across shipments

- Reduced concessions, protected margin

Scope:

In-Transit

Fulfillment Execution Agent

Resolves fulfillment issues by automating corrective actions end-to-end

- Seconds vs. hours of resolution time

Scope:

End-to-End Fulfillment

Shrink & Loss Prevention Agent

Identifies theft and execution failures before margin is impacted

- Protected revenue, lower losses

Scope:

Stores • Warehouses • In-Transit

Split Shipment Agent

Detects and prevents split shipments caused by execution gaps

- Millions saved annually

Scope:

Planning • Suppliers • Execution

Results Driven by Automation

Enterprises using Beamup report:

Retail

+35%

on-shelf availability

20%

less overstock

20%

reduction in shrink & concessions

Manufacturing

22%

reduction in excess inventory

35%

fewer line-stopping stockouts

7%

increase in units per hour

Automate What You Know – At Scale

Purpose-built AI agents for supply chain execution

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Granted Patents

22

Countries deployed

Contact us

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