

# TRIDANT

## Inventory Optimisation Application

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Now built on Anaplan

Growing complexity in the supply chain has made inventory planning even more challenging. Does your supply chain ensure the right amount of stock at the right place at the right time, all the way from manufacturer and supplier to distribution centres to stores? How do you address demand forecasting, variability in actual demand and emerging supply constraints, in real-time?







## Now built on Anaplan

**Tridant IO App is now available on Anaplan's connected planning platform, for gold standard reporting, tactical planning, forecasting and scenario modelling.**

With Tridant IO App on Anaplan, supply chain decision-makers will be able to leverage consolidated company-wide data for granular, real-time views into supply levels, demand forecasts and costs. Embedding instant visibility into critical supply chain

metrics to empower modelling and reviews, stakeholders will better understand potential disruptions, be able to make impactful inventory and planning adjustments, and enable solutions to complex supply chain problems, fast.



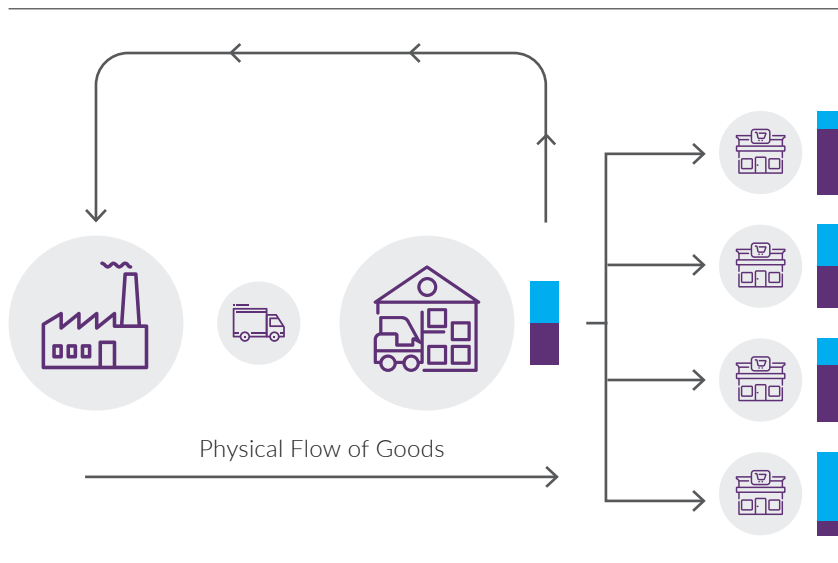
## Inventory Optimisation Application - Multi-echelon inventory planning, based on the theory of constraints

Providing for complex interdependencies among stocking locations, Tridant Inventory Optimisation Application (IO App) enables businesses to efficiently synchronise inventory replenishment.

IO App applies the drum-buffer-rope concept throughout the supply chain, to streamline operations and maintain optimal inventory levels across various echelons in the network.

Built on the theory of constraints (TOC) methodology, IO App's multi-echelon inventory optimisation (MEIO) capability enables dynamic inventory buffers, combined with insights, to eliminate bottlenecks.

This capability empowers businesses to eliminate the bullwhip effect, effectively manage supply volatility, avoid stockouts, and minimise excess inventory at every location in the supply chain. See Figure 1.



**Figure 1:** Synchronised supply orders and dynamic inventory buffers address interdependencies between stocking locations across the supply chain, for inventory optimisation

### Multi-echelon inventory optimisation

is a supply chain planning approach to optimise inventory across the entire supply chain ecosystem, providing for interdependencies among stocking locations. Modelling multiple stages allows other types of inventory, including cycle stock and prebuild along with safety stock due to time-phased demands, to match demand.

Single-echelon inventory optimisation only addresses the inventory stocked at a single location or distribution echelon, and does not streamline operations or right-size inventory levels across the network.

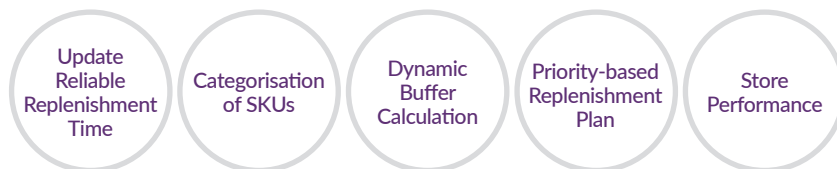
MEIO helps manufacturers and multi-step distributors to ensure correct levels of all inventory types across various echelons in the extended supply chain.

## Tridant Inventory Optimisation Application features:

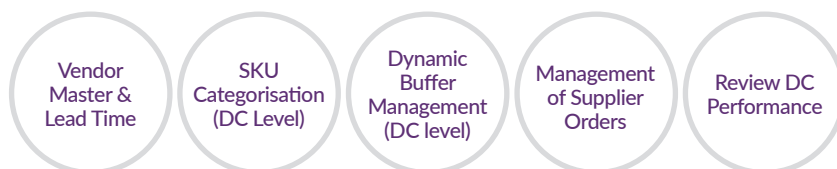
### Data Management:



### Replenishment Planning: DC to Stores



### Supply Planning: DC Inventory Planning & Supplier Order Management



In the **Theory of Constraints**, every system at least one constraint that limits the system from getting more of whatever it strives for and consequently determines the output of the system (Noreen et al., 1995). A constraint is anything in an organization that hampers the organization's progress or increased throughput.

In supply chain for example, the weak link or constraint will limit the efficiency of the entire supply chain network.

The **drum-buffer-rope** logic, of the Theory of Constraints, is a planning and scheduling solution that targets protection against variability at the constraint, driving continuous improvement of supply chain processes.

First applied at Ford Motor Co., the fundamental assumption of drum-buffer-rope logic is that within any plant and production process, there is one or a limited number of scarce resources which control the overall output of that plant. Once identified, this is the 'drum' which synchronises the speed for all other resources including supply nodes such as stores and distributors.

## Our Inventory Optimisation Application offers:

- Easy-to-use interface – empower supply chain practitioners and business users to quickly adopt, update data fast, engage in real-time analysis, model scenarios and make confident decisions
- Functionality to view and monitor performance across multiple segments, products, stores and distribution centres – real-time ability to communicate results and make proactive decisions
- Planning by exception modelling – avoid detailed SKU level entry
- ABC, FSN and XYZ analysis functionality – enhance on-time delivery with flexible service levels and product categorisations
- Streamlined daily replenishment of inventory – based on priority ratios, lead time, and service levels
- Effective promotion planning – tie into integrated business plans and drive inventory buffers
- Automated conversion of order pack size – for example, convert pieces to boxes, from store to distribution centre to supplier
- Vendor minimum order quantity thresholds – built-in workflow enables easy application
- Built-in workflows - maintain integrity of supply chain processes with workflows
- Fleet utilisation indicators – support freight optimisation from supplier all the way to stores
- Conditional formatting on thresholds – drives easy analysis
- Seamless connectivity with other planning applications – integrate planning across finance, marketing, human resources, and other functional areas
- Automated integration to source systems – enable your business to serve customers better, drive more revenue through new avenues, and gain a competitive edge.

The **bullwhip effect** occurs when changes in consumer demand causes companies in a supply chain to order more goods to meet the new demand, causing increasing swings in inventory in response to shifts in customer demand progressively up the supply chain, causing inefficiencies. A distribution channel phenomenon, the bullwhip effect usually flows upstream in the supply chain, starting with the retailer, wholesaler, distributor, manufacturer and then the raw materials supplier.

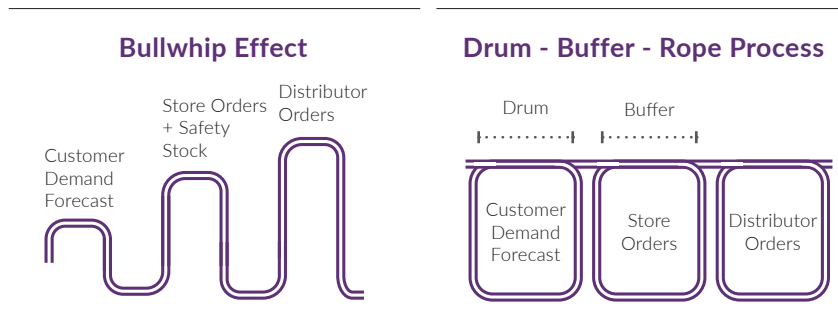


Figure 2: Avoid the amplification of demand variation upstream in the supply chain, by synchronizing the supply chain via the drum-buffer-rope process.

## Our Inventory Optimisation Application enables:

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**Efficiency** – automate mundane tasks to produce an integrated inventory management plan, empowering supply chain professionals to invest their time in high-value activities

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**Efficacy** – minimise instances of over- or under-supply impacting working capital, lost revenue opportunity and compliance requirements

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**Collaboration** – leverage a continuous and collaborative approach for connected planning across multiple business functions

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**Increased Revenue** – maintain optimal in-store stock levels to avoid stock-outs, and capitalise on emerging market opportunities

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**Decreased Costs** – reduce working capital, warehouse costs, distribution costs, and commercial arrangements with suppliers

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**Reduced Risk** – maintain external and internal compliance levels or avoid penalties.

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## Anaplan Partner

### About Anaplan

Anaplan, Inc. (NYSE: PLAN) is pioneering the category of Connected Planning. The Anaplan platform, powered by proprietary Hyperblock® technology, purpose-built for Connected Planning, enables dynamic, collaborative, and intelligent planning. Large global enterprises use Anaplan solutions to connect people, data, and plans to enable real-time planning and decision-making in rapidly changing business environments to give our customers a competitive advantage. Based in San Francisco, Anaplan has over 20 offices globally, 175 partners, and more than 1,400 customers worldwide.

To learn more, visit [anaplan.com](https://anaplan.com).

## TRIDANT

### Get your supply allocations right

At Tridant, we understand that inventory optimisation is no small task. Supporting manufacturing organisations across engineering, consumer packaged goods, fast-moving consumer goods, automobiles and accessories, pharmaceuticals, logistics and transportation, Tridant supply chain solutions improve planning accuracy, enhance productivity, enable faster response times and reduce cost of operations across the supply chain.

Across supply, demand, sales, operations and logistics planning, Tridant analytics-enabled solutions drive efficiencies with automated and streamlined processes for accurate forecasting and planning, and critically, link supply chain drivers to other functional areas such as finance, marketing and workforce planning.





**#ProblemSolved**



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