



# A Shelf-Connected Enterprise

**IMAGINE** demand and supply plans synchronized with those of your retail customers.

**IMAGINE** the ability to sense demand signals further down the supply chain...in the store.

**IMAGINE** optimized local market assortments...for each retail store.

**IMAGINE** significant reduction of total supply network inventory...yet fewer out-of-stock situations.

**IMAGINE** a better understanding of the impacts of trade promotions, consumer marketing activities, seasonality, new products on demand and supply plans with near real-time analysis capabilities.

**IMAGINE** collaborating with your retail customers with detailed consumer insights information to determine the right products to include in their assortment, how to price them, how much to ship, and where they should be located within the available space.

## WHAT'S A SHELF-CONNECTED ENTERPRISE?

Quite simply, a Shelf-Connected Enterprise is just that – where a consumer package goods (CPG) manufacturer collaborates with their wholesale distribution and retail customers to plan an optimal product assortment for each store and synchronize their demand plans and inventory replenishment activities, driven by information captured within the stores.

Capgemini and JDA share a Shelf-Connected Enterprise vision and jointly offer a fully- integrated process framework and software-enabled solution designed to enhance the flow of information from the retail point-of-sale (POS) back to manufacturing. This framework integrates a CPG manufacturer's planning and execution processes and systems to better align the enterprise with consumer demand. The strategic activities between CPG manufacturers and their retail customers are best categorized as follows:

## Shelf Space Collaboration

Major trends in retailing are to optimize and localize assortments and to determine the best space allocation model on a store-by-store basis. Doing this effectively requires new processes, accurate transaction level data, and sophisticated software to handle large volumes of SKUs and stores. The objective of collaborating around planning the shelf is for both partners to better serve the consumer at the lowest possible cost.

The collaborative process involves the retailer conducting macro-level floor planning to determine the amount of shelf space by supplier and category. Subsequently, the CPG manufacturer provides an initial assortment plan, based on insights developed from store clustering analysis, assortment optimization and through the development of a detailed shelf space plan. Adjustments are made and consensus is reached on the final, store-level assortments and plan-o-grams to be executed jointly.

## Demand and Inventory Strategy Synchronization

Typically, CPG manufacturer demand forecasts are based on historic shipments from distribution centers, rather than actual consumer demand in the store. As a result, large disconnects between true demand and available supply can occur. Demand synchronization entails tapping into POS data directly from the retailer, the purest form of consumer demand. With this data, CPG manufacturers see more consistent demand patterns, allowing them to improve forecast accuracy and better balance variations that come from using shipment data alone. POS data can also be used to analyze the effectiveness of promotions, trade spending, or pricing decisions, and provide stronger insight into category performance, market share and competitive activities.

A better forecast serves as the foundation for a time-phased, multi-echelon replenishment plan. Visibility of the retailer's inventory across their supply chain, desired service levels and safety stock policies enables a truly agile, supply chain response system. Better management of trade funds and consumer marketing activities further enhances forecast accuracy and agility.

## Execution Plan Collaboration

Collaborating on inventory strategy and accessing POS data enables CPG manufacturers to manage inventory and resource constraints, and helps them produce executable deployment plans to meet projected consumer demand. Collaboration must continue while the trading partners are executing their synchronized plans. Working together, scenarios and execution corrections can be proposed and accepted based on actual inventory levels, transportation or warehousing constraints and resource availability. Assortments and plan-o-grams can be adjusted to accommodate for product seasonality, new product introductions, promotional displays, or emerging consumer trends recognized by either partner.

Demand and supply can be influenced by the retailer offering discounts or running promotions and advertising campaigns and by the CPG manufacturers by offering trade funds, special packaging, and coupons. Execution plan collaboration also provides a forum for rationalizing inventory held across the combined supplier/retailer network.



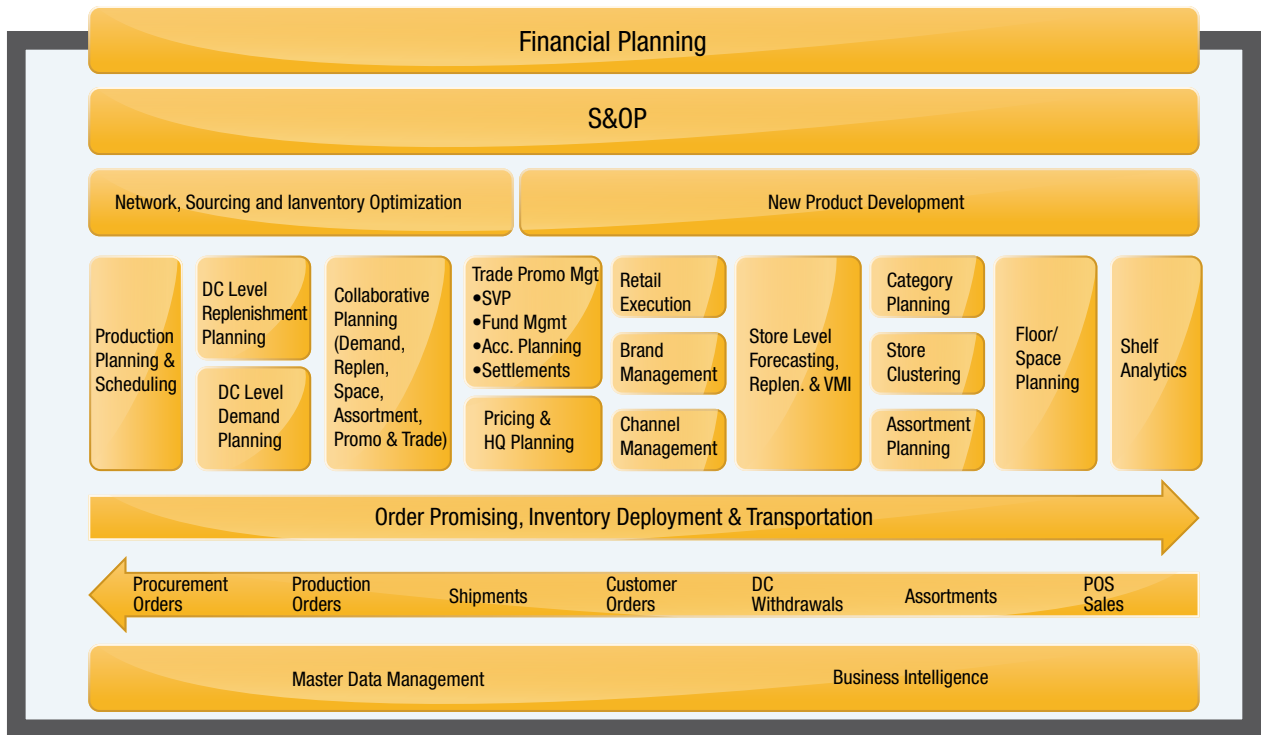
## THE NUTS AND BOLTS OF A SHELF-CONNECTED ENTERPRISE

Specifically, what new capabilities are needed?

The illustration on the following page features a high-level view of the capabilities needed to become a Shelf-Connected Enterprise. Below is a brief description of just a few of them.

**Supplier-generated, Store-level Forecast and Replenishment Plan:** CPG manufacturers wishing to make proactive inventory changes and production strategies must be able to model and forecast demand at the retail shelf level, rather than at the more traditional distribution center shipment level. To do this effectively, processes and technology are needed to quickly gain insights from potentially tens of millions of SKU/location combinations.

**Collaboration on Forecasting and Replenishment:** Many CPG manufacturers unexpectedly experience large swings in order patterns resulting from the retailer's decision to change service levels, safety stock settings, lead times, transportation modes, and order parameters. Collaborating around replenishment policy and store-level forecasts will allow both the supplier and retailer to better manage the flow of merchandise.



**Store Clustering and Assortment Optimization:** Clustering stores together based on similar consumer buying preferences enables the optimization and localization of product assortments. Due to the sheer volume of store counts, it is impractical for many CPG manufacturers and retailers to manage individual assortments for each store. Sophisticated store-clustering tools which provide consumer insights are used to analyze POS demand and other factors such as demographics, weather, competitors, etc.

**Supplier-developed Store Plan-o-grams:** While store level clusters and assortments are created, CPG manufacturers need to collaborate with retailers on shelf plan-o-grams to execute these localized assortments. CPG manufacturers should leverage rules-based, plan-o-gram generation toolsets to create executable shelf plans which can be implemented on the retailer's shelf.

**Shelf Analytics:** In addition to analyzing historical data, CPG manufacturers should deploy new practices and solutions to analyze the retail shelf with a predictive lens. Root-cause analysis looking at phantom/ghost inventory, inappropriate ordering parameters, inaccurate demand forecasts, insufficient shelf-space allocation, and poor in-store execution can predict which items are likely to be out of stock in the future. By doing so, manufacturers can then collaborate with their retail customers to adjust forecasting and replenishment parameters, preventing an out-of-stock situation.

**Multi-Echelon Inventory Optimization:** Multi-echelon inventory optimization provides CPG manufacturers with improved inventory performance, while simultaneously driving higher in-stock rates. By analyzing inventory safety stock policies throughout the multi-echelon distribution network, CPG manufacturers can tier service levels for different products and take advantage of scenario modeling that allows them to set the right inventory policies at all nodes in the network. Scenarios can be evaluated down to the retail customer level, enabling more strategic, informed inventory-control decisions.

**Multi-Echelon Replenishment:** CPG manufacturers have struggled with CPFR programs, largely due to an absence of an effective way to translate the store-level forecast into a reliable, time-phased order plan. Rather than incorporating time-phased demand forecasts from the shelf, most CPG manufacturers use a less reliable order forecast based exclusively on historical shipments from the distribution centers. A more effective approach is to work closely with their retail customers to develop reliable, multi-echelon, time-phased plans based on POS data and network perpetual inventories while incorporating the constraints of the overall supply network.



## CONNECTING AT THE SHELF IN THE REAL WORLD

A leading manufacturer of home appliances and one of its largest retailer customers have experienced first-hand the value of connecting the supply chain to the shelf. The two companies recognized they were missing an opportunity to improve performance through increased collaboration, innovation and true end-to-end, supply chain integration. With the help of technology and a focus on CPFR and S&OP, the companies progressed through several stages of process improvement. As a result, they achieved joint process improvements and real results, including:

- Better overall organizational alignment
- Increased visibility into each company's business plan
- Improved leveraging of assets through more integrated sales plans
- Extended planning horizon in a closed-loop planning process
- Aligned strategic objectives with structured performance management programs

With a collaborative supply chain system based on end-consumer demand, the companies fully understand the significance of a two-way planning relationship. By bringing together teams and leveraging true customer-demand data, both companies are driving faster, more reliable decisions to get the right product to the shelf.

**Global Demand Forecasting:** Today, many CPG manufacturers incorporate customer demand hierarchies into their forecasts, but the statistical views are often built upon shipment histories versus a shelf-driven demand signal. CPG manufacturers that adopt a shelf-centered point of view take into account the customer's view in their consensus demand-planning process. The Shelf-Connected Enterprise model starts with the 'pull' signal from the shelf as the primary input to develop accurate, customer time-phased order plans. It then incorporates the effects of consumer promotions, trade fund activities and consumer marketing events to develop a more accurate overall forecast to be shared with retailer customers.

**Synchronized, Enterprise-Wide Sales & Operations Planning (S&OP):** CPG manufacturers must have the ability to synchronize their demand and supply plans to that of their largest customers, especially considering that retailers often have more influence than ever over CPG manufacturers. To achieve this, demand signals must be sensed further down the supply chain and a process must be in place to synchronize the planning and execution sides of S&OP. A synchronized S&OP process transforms the traditional supply and demand balancing exercise into an integrated process that aligns operational plans with long-term business strategies and financial objectives. With better and more real-time shelf data, CPG manufacturers can shape demand instead of reacting to changes in the market.

### WHY CAPGEMINI AND JDA – TOGETHER?

In the Shelf-Connected Enterprise solution, Capgemini brings extraordinary experience in business strategy, process improvement and technology implementation, while JDA brings category management, trade fund management, supply chain planning, optimization, and execution solutions for the consumer-driven supply chain that help companies realize real results, fast. Collaboratively, these two leaders bring to your organization a solution that fits your business model and works to help you achieve your business objectives.

An easy way to get started is to engage with Capgemini and JDA to develop a Shelf-Connected Enterprise Plan. In less than 10 weeks, a team collaborating with your key people can produce a business case, technology roadmap, operating model, and project plan including resource and cost estimates.

Capgemini, one of the world's foremost providers of Consulting, Technology and Outsourcing services, enables its clients to transform and perform through technologies. Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience.™ Present in 40 countries, Capgemini reported 2010 global revenues of EUR 8.7 billion (approximately USD \$11.5 billion) and employs around 110,000 people worldwide. More information is available at [www.us.capgemini.com](http://www.us.capgemini.com).

JDA® Software Group, Inc. (NASDAQ: JDAS), The Supply Chain Company®, is a leading global provider of innovative supply chain management, merchandising and pricing excellence solutions. JDA empowers more than 6,000 companies of all sizes to make optimal decisions that improve profitability and achieve real results in the discrete and process manufacturing, wholesale distribution, transportation, retail and services industries. With an integrated solutions offering that spans the entire supply chain from materials to the consumer, JDA leverages the powerful heritage and knowledge capital of acquired market leaders including i2 Technologies®, Manugistics®, E3®, Intactix® and Arthur®. JDA's multiple service options, delivered via the JDA® Private Cloud, provide customers with flexible configurations, rapid time-to-value, lower total cost of ownership and 24/7 functional and technical support and expertise. To learn more, visit [www.jda.com](http://www.jda.com) or e-mail [info@jda.com](mailto:info@jda.com).

Working together, we have helped our mutual clients implement growth strategies, leverage technology, manage change within their organizations, and achieve tangible, sustainable value.

#### Ben Pivar

Vice President, North America Supply Chain Lead  
Capgemini  
+1 404-229-3352  
[ben.pivar@capgemini.com](mailto:ben.pivar@capgemini.com)

#### Fred Baumann

Vice President Industry Strategy  
JDA Software  
+1 770-701-3438  
[fred.baumann@jda.com](mailto:fred.baumann@jda.com)