

The Value of Managing the Extended Supply Chain Network

Distribution-intensive companies — whether manufacturers, wholesale distributors, retailers or third-party operators — are facing the challenges of limited revenue growth, rising operating costs, expanding customer service requirements and constant changes in their capital-intensive distribution networks. Traditional approaches tend to address these challenges discretely, sub-optimizing the business benefit and often adding further complexity into the complete network.

Firms that responded aggressively to these challenges have adopted a new business model, to overcome these obstacles and add significant financial performance to their bottom line. These organizations now enjoy industry leadership positions because they extended their supply chain to leverage the power of the “**network**,” beyond their own discreet operations. By doing so, these firms save 2 to 8 percent of revenue in total supply chain costs when compared to weaker peers in their industry, and they enjoy the influence that goes with that leadership (see inset CSC client briefings).

By actively engaging customer and supplier partners, in a broader network centric view, firms can address these challenges by looking beyond their traditional organizational boundaries in order to assess the ever changing network dynamics, which are driven by multiple factors:

- **Competitive Pressures** – joint ventures and partnerships, cost competitiveness, market effectiveness and margin squeeze
- **Increasing Customer Demands** – inventory availability, demand for value-added services and higher customer service level expectations
- **Channel Drivers** – changing channel economics, customer and supplier network changes, and altered roles/status of key industry players
- **Growth Imperatives** – product proliferation, geographic expansion, mergers and acquisitions, and demand for shorter new product introduction cycles
- **Technological Advancements** – connectivity needs with partners, emerging optimization solutions and RFID mandates

These drivers present substantial challenges to a firm’s supply chain performance in the areas of inventory redundancy, transportation inefficiencies, customer service pressures in multiple channels, decreasing product velocity, lead time variability, lack of inventory visibility, and excess capacity.

Leaders respond to these challenges by increasing the frequency with which you analyze your networks, expanding the scope of your efforts to reflect the extended supply chain system and bringing innovative solutions to the associated channel dynamics. The payback for implementing these efforts will be improved performance in areas that have been historically difficult to manage, including:

- Network designs that model customer and supplier locations to develop collaborative networks, resulting in proper DC locations, minimized product handling and optimized order deployment processes – **dramatically reducing total landed costs.**
- Inventory can be optimized in a multi-echelon network by designing effective inventory stocking strategies, utilizing event management to manage lead time variations and maintaining visibility throughout the network – **reducing out-of-stocks and increasing sales lifts because the right product is at the right place.**
- Adding additional supply chain programs into the overall network such as drop ship, merge-in-transit, postponement, and other product flow optimization initiatives – **further reducing handling and shipping costs.**
- Addressing ineffective, often overlooked, multiple reverse path flows from your customers as a source of additional network value.

Food Service Industry CSC Client Briefing

Complex network with constrained demand visibility and limited economies of scale

- Deployed an integrated redistribution strategy
- Reduced Inventory and Operating costs
- Enhanced SCM capabilities

Telecommunications Provider CSC Client Briefing

Limited demand visibility, manual processes, constrained network

- Channel Master
- Deployed an alert based management framework
- Integrated scaleable infrastructure
- Decrease supply chain costs by \$40 million

Integrated Network Strategy – Creating the New Supply Chain

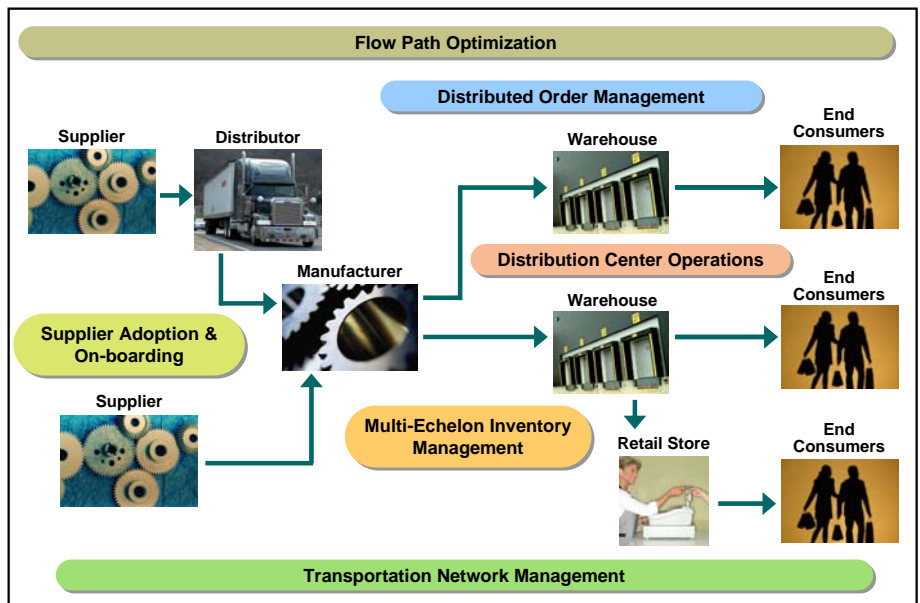
CSC has applied its first-hand experience, functional expertise, and proven change techniques to help clients take optimization and process improvement to the next level; to the “network level.” CSC’s Integrated Network Strategy is a holistic approach to the design, implementation and active management of a distribution network.

By tapping into better practices and leveraging enabling technologies, it links customers, distributors and suppliers together with logistics operations to enable a single view of demand and supply, with visibility across the total system. It provides the opportunity to assess scenarios in comparing financial and operational “trade-offs” in order to optimize the flow of materials, information and cash through your distribution network and to reduce lead-times and minimize cost. By creating an Integrated Network Strategy, companies are able to develop a framework to exploit improvement opportunities across multiple areas:

- **Flow Path Optimization** – multi-tier distribution networks with highly optimized product flow paths as well as support for advanced programs such as merge-in-transit, cross dock, and reverse logistics
- **Distributed Order Management** – coordinating orders across channels and divisions with the goal of one order, one invoice in an error-free environment
- **Transportation Network Management** – corporate-wide demand aggregation, network level load consolidation, carrier bid optimization, and optimization opportunities such as continuous moves and drop ships
- **Multi-Echelon Inventory Management** – VMI, consignment, multi-echelon inventory management, global inventory visibility and collaborative planning
- **Supplier Adoption & Onboarding** – designing the supplier network to match the new distribution strategy, eliminating redundant stocking locations and reducing supplier costs
- **DC Operations** – optimizing product handling and minimizing high cost labor activities with appropriate automation

Designing highly-efficient networks is just the first step. To competently manage processes and operations at the network level, new business requirements must be supported through an effective business system architecture that integrates the enabling business functions. Demand for real time collaboration with network partners, enabling decision support tools and event based management capabilities require organizations to assess the value of extending their current application capabilities, as a means of institutionalizing new ways of doing business.

Integrated Network Strategy



In working with our clients, we have helped create long term roadmaps for Integrated Network Strategies, which adopt a phased deployment approach, taking into account the firm’s readiness and willingness for change.

CSC – Your Trusted Guide for Supply Chain Advancement

CSC can help you evaluate your supply chain network and operating strategy, determine how to leverage your supply chain technology investments and enable competitive business practices. Our experience with network analysis and solutions, combined with our ability to deploy experienced, cross-functional teams, and proven approaches and techniques can increase your company’s chances of success and benefit realization

CSC’s Supply Chain Solutions Practice is recognized as a premier supply chain consultancy for providing superior client service through viable and tested solutions implemented by experienced practitioners.

For more information on CSC’s Supply Chain Solution’s Practice and its Integrated Network Strategy capability, please contact:

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Integrated Network Strategy

Food Service Case Study

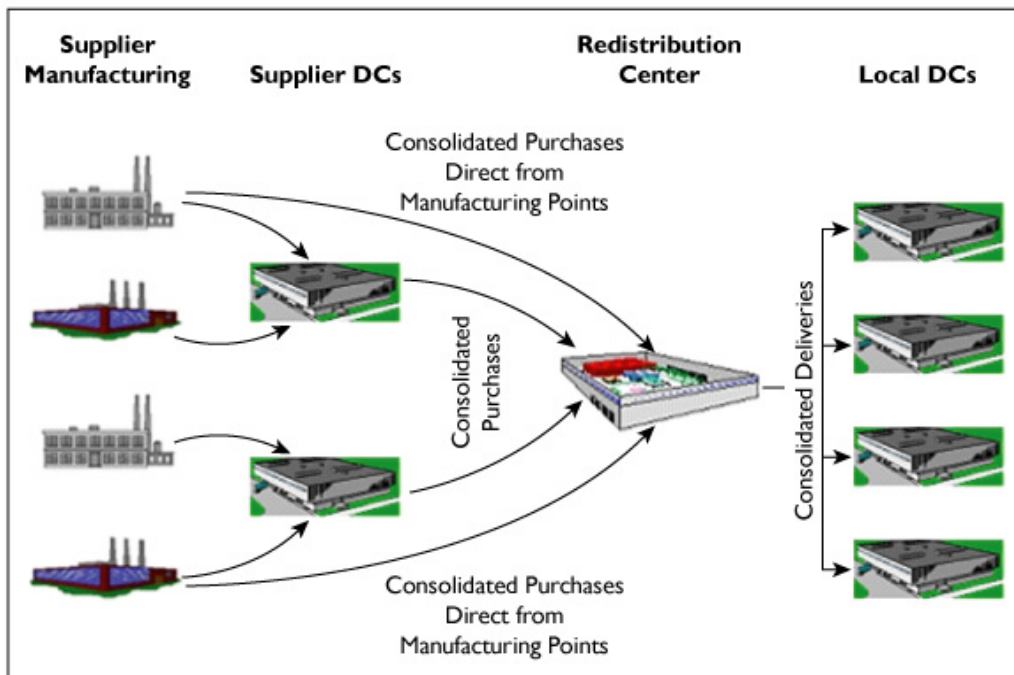
Benefits

- Cross Dock Opportunities
- Transportation Savings
- Bracket Pricing Improvements
- Factory Direct Pricing
- 50% Less Inventory
- Operational Efficiencies

The largest U.S. foodservice distributor had grown through acquisition to a \$30 billion company, consisting of 68 highly autonomous operating companies with highly independent and redundant supply chains. The network complexity led to excess inventory due to replication of inventory, increased warehousing facilities and transportation costs driven by LTL shipments. This had a compounding effect on order management costs in addition to constraining overall demand visibility and prohibited the company from leveraging their economies of scale. The company's vision was to develop a standardized, consolidated and integrated supply chain network.

In working with the senior leadership, CSC adopted a **holistic approach** to develop an optimized network utilizing a new redistribution concept supported by an overarching business case to improve customer service and generate significant operating cost savings. A key component of the business case was the need to move away from an autonomous culture, to one requiring extensive integration and cooperation at the regional and national level. To effectively drive this, CSC defined a change management plan supported by the development of a new set of supply chain performance metrics and the implementation of a program management office into the overall integrated network strategy.

As part of the overall design, implementation, and active management of the Company's distribution network, initial work focused on flow path analysis and development of new processes for transportation, order, and inventory management. CSC performed detailed network distribution and inventory modeling, to examine trade-offs among fixed and variable operating costs with various levels of service in determining the optimal location of warehouses, transit routes and product routing.



With the full support of senior level management, a new standardized and consolidated supply chain and order to cash process was then designed. This work included:

- Integration of processes across multiple work streams
- Collaboration with suppliers, carriers and downstream operations
- Organizational planning and change management activities
- Lab-based validation of processes and systems selected
- Development of training materials and programs
- Implementation support

The output of this detailed design activity provided the requirements to develop the future state applications architecture. The company adopted a "best of breed" approach as CSC led the selection process of four new software packages (Transportation Management (TMS), Warehouse Management (WMS), Distributed Order Management (DOM) and Inventory Management (IM)) and supported their successful implementation.

The most notable shift in the physical supply chain was the addition of Redistribution Centers (RDC's) to consolidate deliveries from suppliers to the local DC's.

Although the business case and realized business benefits remain confidential, the project's strategic importance and impact to the Company's cost structure has drawn the attention of Wall Street analysts.

Integrated Network Strategy

Major Telecommunications Provider

Benefits

- Became the Channel Master of their Supply Chain
- Scaleable Supply Chain Infrastructure
- Alert based SCM management
- Improved SCM staffing skills
- Decreased supply chain cost by \$40 million
- Electronic integration of Trading Partners

A major telecommunications provider needed to transform their 'go to market strategy' to gain a competitive advantage. To achieve this, the Company needed become the channel master by improving the management of their extended supply chain with B2B customers, transportation and warehousing providers, and their OEM supply base. The Company wanted to accomplish this while removing significant supply chain costs and limiting supply chain management staffing increases.

The company's supply chain consisted of multiple partners; manufacturing was outsourced to OEM manufacturers. Two channels that amounted to 75% of total volume, retail distribution and third party dealer distribution, were supplied directly by the OEMs. The balance of the channels including consumer direct was provisioned from a third party warehouse. The majority of the supply chain processes were manual and nearly all supplier interactions were via email, fax, and telephone. A separate relational database maintained inventories and no automated demand / supply planning existed.

Initially, CSC assisted the client in visualizing the supply chain/network to achieve the goals of controlling the product flow and reducing costs. The final network needed to supply 300% more volume through the third party warehouse to control 90% of the flow of product to the end consumer.

For the Company to transform from the current state, the solution needed to consider people, process, technology, and information. By adopting the SCOR[®] model, CSC identified new enabling capabilities including: network capacity, sourcing, customer service, and transportation. A road map to provide the process capabilities was derived based on business priorities and a prioritized release plan developed.

The initial release centered on purchasing, planning and expanding the network to handle the volume. All supplier contracts were renegotiated to change the flow of materials into the Company's network. MRP based planning was introduced, automating manual procurement processes. CSC performed a network analysis to identify the number of warehouses required. A phased approach introduced a new West Coast facility, with a planned third facility to be located in the New England area. The company selected a 3rd party consortium of providers to manage both inbound and outbound transportation. Electronic links were established to both warehouse and transportation providers.

The second release added customer service capabilities needed to process the new channel volumes. Self service capabilities for customers to order and return materials were introduced and further automation was developed to eliminate manual steps required to submit orders through to supply chain partners. A collaboration hub for working with the Suppliers was also implemented that reduced manual interactions concerning order confirmations, changes and shipments.

In addition, an organizational plan was created to bring in new talent to the company and development plans for others still within the organization.

