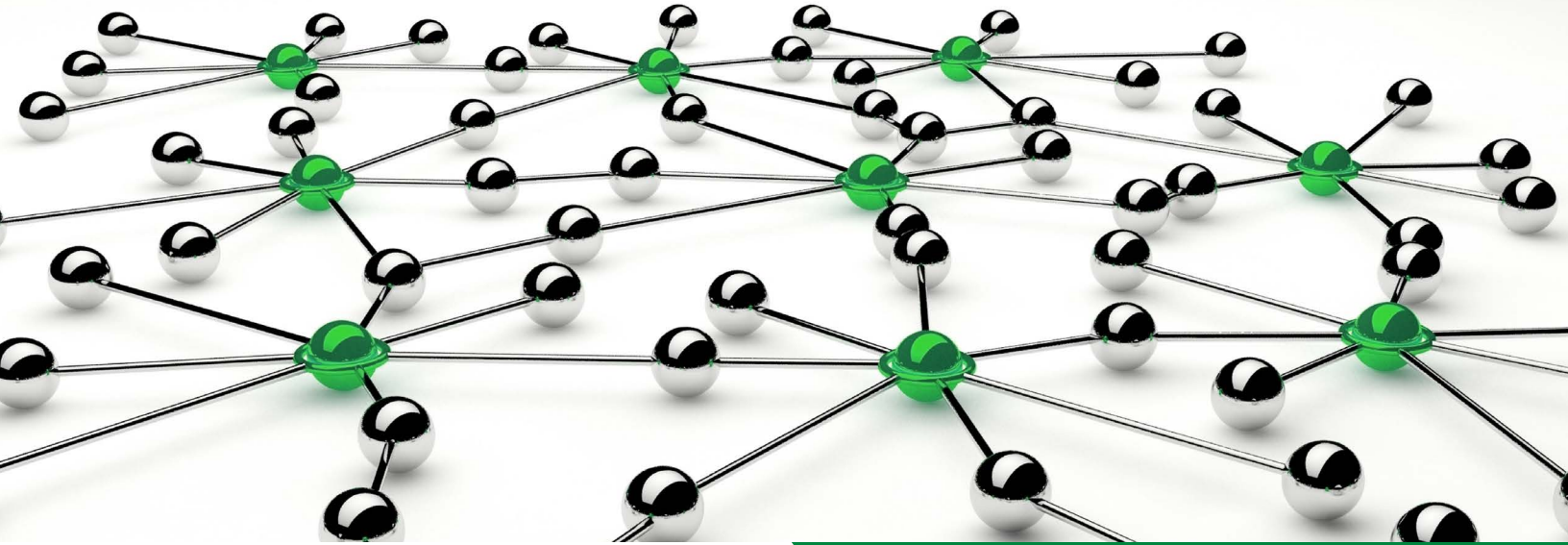


# Optimizing Distribution Networks for a Competitive Advantage



*This report looks closely at how distribution network configuration can impact supply chain effectiveness.*



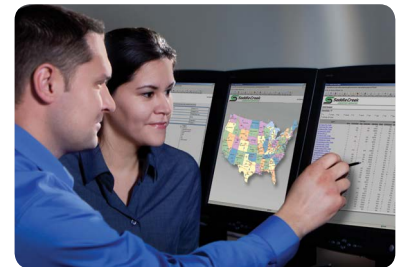
Companies today are continually challenged to reduce costs and improve service levels. In seeking a solution, many consider full-scale supply chain network optimization — analyzing every link, from purchasing to production to distribution. Certainly, an end-to-end overhaul can have a significant impact on supply chain efficacy, but such an extensive effort is not viable for every company due to constraints in infrastructure, cost, systems, time and other resources.

Often, a more targeted approach can deliver remarkable results. By focusing specifically on optimizing their distribution network, many companies find that they can effectively address complex supply chain challenges. “A strategic distribution network can help to accommodate unreliable customer forecasting and changing business needs while increasing efficiency and controlling costs,” says Mike Jennison, Saddle Creek director, solution design.

### Getting It Right

When designing a distribution network, careful consideration must be given to identifying the best locations and required capabilities to meet business objectives.

“Optimal network configuration really focuses on two key points,” Jennison says. “What kind of service level do you need to give your customers? And how can you provide that service level most efficiently and cost effectively?”



Jennison recommends that companies consider customers’ service-level expectations. Do they expect overnight or even same-day service or will they be satisfied if merchandise arrives within 7 to 10 days? Are orders fairly consistent or are last-minute changes commonplace? Are products one-size-fits-all or is customization required? Defining desired service levels helps to establish required network parameters.

### Strategic Locations

With these guidelines in place, companies can determine the optimal proximity of potential DC locations to customers, sourcing, manufacturing, ports, major Interstates, etc. They can also hone in on the ideal number of distribution centers. This will be different for every company, as it depends on a variety of factors including order volume, product characteristics, and acceptable transit times.

“It can be helpful to assess how changes would impact service levels and identify opportunities for savings on transportation costs,” Jennison says. “Often simply changing the number or location of distribution nodes can have a significant impact on a company’s bottom line.”

### Convenient Services

Once prime locations have been identified, companies should give careful thought to the capabilities required at each facility. Having services such as packaging and fulfillment on site can streamline the supply chain by eliminating the need to send products out to a co-packer or jobber. This can help to reduce handling, transportation costs, and liability concerns.



Ready access to these services also enables companies to delay product configuration until the last possible minute, giving them greater flexibility to be responsive to customer demand. From assembling rainbow packs to formatting computer hard drives, performing product customization as close to the customer as possible also helps to improve inventory control and offers opportunities for savings on transportation costs.

“Once you’ve looked at key variables in light of your business objectives, the ideal distribution network configuration often becomes quite clear,” Jennison says. “If forecasting is unreliable, for example, you’ll want the ability to customize products as close to the end customer as possible. If next-day or same-day service is expected, you might need to establish a DC in almost every urban area. If transportation costs are way out of line, your focus may be on finding locations that allow you to consolidate shipments and use more long-haul service.”



## Effecting Change

When a distribution network could benefit from improvement, the following optimization process can help to facilitate the reconfiguration:

- **Compile historical data** – A detailed shipment history can be used to conduct a transportation analysis and determine the most cost-effective site option(s). Typically, complete, accurate data for the past 6–12 months is needed in order for analytics to work well.
- **Analysis** – A careful assessment of service expectations and related variables, as described above, is critical for success. For example, a plant-based DC can be the most cost-effective option, but it may not be the best for customer service. A high-end, formal study can be a lengthy and costly process, but even a more basic review can effectively weigh the options against key business requirements.
- **Evaluate required resources** – Consider anticipated labor, equipment, and systems needs and the necessary infrastructure to meet those requirements.
- **Consider the impact on inventory** – It pays to look at the big picture. “Having multiple DCs can require more safety stock, so overall inventory carrying costs may increase significantly,” Jennison notes. “However, those costs may be offset if you are able to employ postponement strategies that help to improve inventory control.”
- **Consider the cost of change** – The total cost of reconfiguring a distribution network must be taken into account – the space itself, the cost to move inventory, necessary resources (people, trucks, training, systems, etc.) Remember to take into account costs associated with an existing lease or 3PL contract as well.
- **ID space to suit** – If reconfiguration makes sense, find a space that can accommodate the desired business objectives and achieve the optimal service level.
- **Uphold service levels** – Develop an inventory implementation strategy in order to avoid service interruptions. “Plan the transition carefully in order to keep it seamless for the customer,” advises Jennison.

## Seeking Support

Many companies find that a third-party expert can be a valuable ally in the distribution network configuration process. Experience and understanding of best practices allows them to offer strategic counsel. They may also have an existing network of facilities that could allow customers to get up and running in a new location quite quickly. If a provider's existing network does not meet requirements, ensure their willingness to invest in a location that does up front.

"It is important to find a provider with the resources and flexibility to accommodate your specific needs," Jennison says. "You don't want to 'force fit' such an integral aspect of your supply chain."

However they handle the execution, more and more companies are finding that taking a strategic approach to distribution network configuration gives them a competitive in the marketplace. Certainly, a process that can enhance service levels, improve inventory control and reduce costs merits a closer look before investing in a full-scale optimization of a supply chain network.

## Network Optimization in Action



When TalkingRain Beverage Company began experiencing explosive year-over-year growth, the Seattle-based company decided to expand to a national footprint. They turned to Saddle Creek for help in configuring their distribution network.

The 3PL identified strategic locations that will put the beverage producer's inventory close to end customers, optimize transportation costs and drive service level excellence. Facilities include existing space in Florida, Georgia, North Carolina, New Jersey, Chicago, as well as three new locations in Washington, California and Texas. Saddle Creek executed the complete network configuration in less than six months and now manages more than one million square feet of food-grade warehouse space at these campuses for TalkingRain.

Saddle Creek also handles large-scale product manipulation with value-added services such as product reconfiguration, product customization and rainbow-pallet building. The 3PL's ability to produce multipacks has allowed TalkingRain to begin producing only 18-packs. Saddle Creek then converts these packs into 6's, 12's, or 24's according to customer orders, enabling TalkingRain to give retailers a unique pack in their market. This support will help TalkingRain to move inventory closer to its customers, optimize packaging for end users, and remove a node from its supply chain.

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## About Saddle Creek Logistics Services

This research was sponsored by Saddle Creek Logistics Services. As a third-party logistics company, Saddle Creek leverages its broad array of capabilities — including warehousing, transportation, packaging and fulfillment — to provide integrated solutions in support of our customers' business objectives.

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