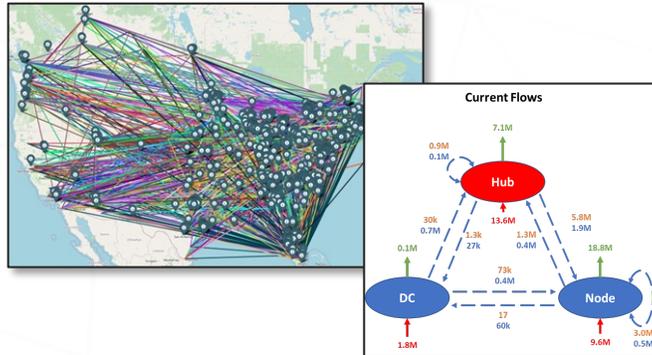


Conducted strategic network, inventory, and transportation optimization for multi-billion-dollar distributor maximizing service and cost

DISTRIBUTION

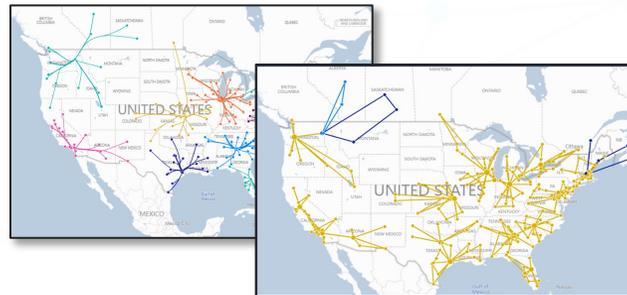
Situation

- Large aftermarket auto parts distributor with complex network resulting from mergers wanted to redesign network to maximize service level, inventory, and cost
- Current network included 200+ nodes receiving product from 70+ origins with long lead times – 100,000 SKU total product portfolio
- Distributor wanted to maximize fill rate by consolidating branch fulfillment to a single source, short-lead time strategy driving high service levels and limiting inventory



Actions

- Supported development of 'Digital Twin' of current network and product flows utilizing Llamasoft modeler to identify baseline costs and product flows
- Developed and ran 50+ network optimization scenarios accounting for # of distribution locations, demand centers, service requirements, inbound/outbound freight costs, lease rates, market labor rates, duties, and # of touches
- Utilizing optimized DC locations, ran inventory scenarios to identify ideal cycle/safety stock amounts by product and transportation optimization prioritizing integration with current fleet



Results

- Simplified of 200+ node network with single source fulfillment at up to 90% lead time reduction on key products
- Identified >10% network savings while increasing next day service from 50% to 80% at nodes
- Positioned client for 19% reduction in Inventory driving significant expansion of working capital

