



UPS Supply Chain SolutionsSM

case study

Flexible Telecom Service Parts Network Signals Savings

A Fortune 100 telecommunications provider with more than 45 million customers was seeking an independent evaluation of their supply chain strategy with a focus on opportunities to reduce costs and improve operational performance within their service parts logistics supply chain. The company selected UPS Supply Chain Solutions' consulting services team to develop the supply chain strategy and supporting operational model based on lean principles, improving supplier integration and leveraging third party capabilities.

Client Challenge

The company owns and operates a regional U.S. voice and data network which requires millions of dollars annually to expand, upgrade and maintain. The client is constantly facing major evolutions in technology and intense competition from other carriers and alternative technologies. The client therefore is dependent on their supply chain to meet service, reliability and cost pressures in order to stay competitive and support objectives for growth and retention of their customer base.

The company hired UPS Supply Chain Solutions to develop its service parts logistics strategy in line with changing market realities. Beyond the strategy, UPS Supply Chain Solutions assisted with developing the operational model and implementation plan to realize and sustain the supply chain strategy objectives.

Our Solution

After an initial assessment of the company's service parts logistics, UPS Supply Chain Solutions recommended that the company focus on improving their supply chain dedicated to plug-in circuit cards which control what services are delivered to the end customers. The high-value circuit cards are especially challenging to stock at optimal levels because they come in tens of thousands of variations and millions of circuit cards are needed throughout the company's network with very little predictability of "what" circuit card will be needed "where" to restore customer service. Further compounding the challenge of optimizing the supply chain was the dispersion of circuit cards, distributed through a central stocking location supporting over 20 smaller distribution centers throughout the region, with over 10,000 technicians responsible for inventory control and placing orders. Beyond the physical and geographical challenge, the issue of meeting service levels within 2-4 hours of recognized demand, up to a maximum of 3-5 days, put heavy

Supply Chain Strategy

GEOGRAPHIC AREA SERVED

Regional U.S.

CHALLENGE

Reduce operating costs and improve capital utilization without degradation in supply chain service levels.

SOLUTION

Design a flexible service parts logistics network that can respond to short interval demand signals, position inventory within the supply chain based on customer expected lead time, thereby eliminating heavy investment in forward placed inventory.

RESULTS

- Identified potential to meet service demand with 85 percent less field inventory
- Developed supply chain strategy to increase annual turns of spare parts inventory from 1 to 6
- Positive ROI within first year of implementation

emphasis on inventory positioning, predictive models, flexible and reliable logistics capabilities and finally operation controls and measures to satisfy supply chain requirements.

Using historical transactional data, UPS Supply Chain Solutions created demand profiles to break the company's service requirements into three categories: same-day service; one-to-three days; and greater than three days. Each demand profile had a different implication in terms of the inventory placement and the supply chain operational requirements in order to meet demand within customer expected lead time.

Due to the large percentage of same-day service requirements, UPS Supply Chain Solutions recommended that the company eliminate its regional DCs and replace with a network of field stocking locations (FSLs) to reduce the lead-time necessary to access critical parts. UPS Supply Chain Solutions used network modeling tools to determine the optimal locations for the FSLs and the recommended inventory levels for families of circuit cards based on historical demand for the technicians which would be directly supported by the FSLs.

Based on the new stocking strategy UPS recommended, it was estimated based on actual historic demand levels that the company could reduce its inventory by approximately 85 percent at the field level and 50 percent across the whole service parts logistics supply chain. Applying service parts planning technology to enhance visibility will enable the company to increase the average inventory turns from once to six times per year, without having a negative impact on service levels as demand and the installed technology base changes over time.

UPS Supply Chain Solutions developed a flexible solution capable of paying for itself within the first year, since it does not require a major investment in infrastructure or technology. By focusing on demand and the time available to meet demand, the company will implement a supply chain strategy which reduces operating costs and improves capital asset utilization without degradation in supply chain service levels, thereby improving their competitive position in an industry which is facing a "perfect storm".

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