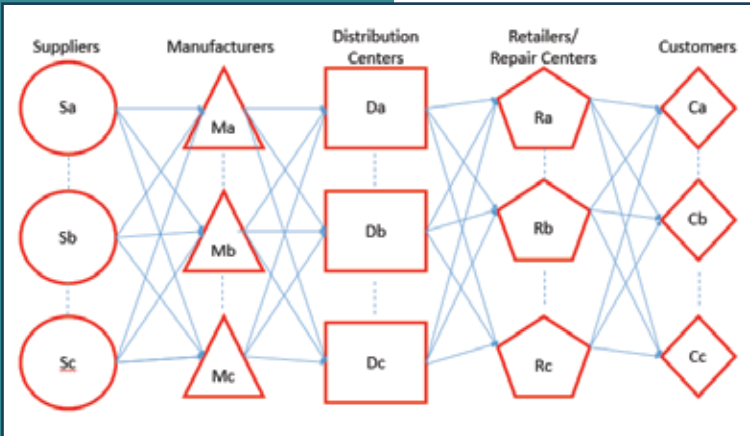


# **Optimizing Multi-Echelon**

Supply Chain Operations to  
Ensure Efficient Spare Parts Management

Aerospace supply chain network is spread across multiple locations and across multiple levels. This effectively translates to a Multi-echelon Supply Chain as showed below:

## Multi-echelon Supply Chain



A part has to travel through many levels before it reaches the end customer. Such multi-level supply chain increases complexity exponentially and various factors such as availability, lead times, etc. start affecting service levels.

Ensuring continuity of service and avoiding parts-related disruption is the major objective of any spare parts management organization. In a high-value aerospace service supply chain, a single part stock-out can lead to an incidence of aircraft on ground (AOG) leading to lost revenue and customer discontent. TechM BPS Spare Parts Management as a BPaaS enables organizations to optimize costs, increase responsiveness, and provide high service levels.

## TechM BPS Solution

Our demand planning and inventory management experts constantly monitor the network for part shortages or inventory buildup. With timely intervention, instances of AOG, or inventory build-up can be avoided, leading to reduction in maintenance costs, reduced stress on service supply chain, and improved cash flow.

We understand the importance of getting the right part at the right place and at the right time. In the aerospace industry, supply chain networks are complex due to multiple nodes, customers, and suppliers. Often end users require immediate availability of more than a million part types from multiple vendors. Coordinating with multiple vendors for parts which have a long life cycle, low interchangeability, high price variations, and from different locations across the globe, make this a very complicated endeavor. Further most of the contracts in Aircraft maintenance are by hour and any downtime = lost revenue.



## Transformation Process

Managed services provided by Tech Mahindra are spread over three layers Automation, Analytics, and Consulting.

### Automation

Spare parts management involves multiple processes in the back end and front end. We implement RPA (Robotic Process Automation) to automate several tasks, leading to significant cost benefits, reduce errors, and improve real-time visibility.

### Analytics

Data inputs from across the supply chain from cost fluctuations proposed by manufacturers to demand inputs from customers will help in analyzing the trend and forecasting demand, cost, and timelines.

Analysis



Solution



Transition



Relationship



Execution

### Our Key Performance Levers

Even if the cost of the part is negligible, its non availability can lead to service disruption and losses. A 24x7 BPaaS service performs various critical tasks, ensuring high client service level supporting the supply chain activities. Some of the typical services provided by Tech Mahindra are:

- Monitor inventory buildup and stock-outs
- Adjusting supplies and parts re-planning
- Single Part view and 24x7 command centers
- Repair and Return Monitoring
- Monitor Vendor Managed Inventory related issues
- Data analysis and continuous inefficiency identification
- Sustenance of standard and continuous improvement
- Revenue generated from Spare Parts

### Consulting

We ensure the spare parts replacement process is transitioned in 6 to 8 weeks. We bring in several decades of process management expertise to identify cost take out opportunities.

Supply Chain Excellence can be achieved only by opting for a multi-pronged strategy using multiple offerings ranging from Information Technology to Business Process Outsourcing. Also to attain the full benefits of these services we employ a continual improvement approach leveraging agility, operational excellence, and Kaizen.

## Benefits

We have helped multiple companies including the leading aerospace and automobile factories in optimizing their inventory and providing managed services. Some key success stories are:

- Improved stock mix and a steep reduction of 86% in aging inventory
- 54% drop in costs associated with cross-shipment of inventory
- Consistent achieved 97% Resolution, 97% Response, and completed 95% cases within stipulated time for Spare Parts Management

## Case Study

Helped a Large Equipment Manufacturing Company Reduce Cross-shipment Costs by 54% by Optimizing Supply Chain Operations

### Customer Overview

- Client had operations spanning 4 plants, 24 stockyards, and 800+ dealers
- Sales forecasts had limited accuracy when compared to actual demand from market, leading to inventory shortages and surpluses at stocking points
- Substantial time and money spent on cross shipments and liquidation of ageing stock
- Discounted sales/loss of sales due to non availability of the right model at the right place and time

### TechM BPS Solution

- Strategic forecasting for purposes other than operational – business planning, capacity planning (own and for suppliers)
- Forecasted requirements for day-to-day operations and supplies from plants to stockyards based on established network plan and pull replenishment
- Modified stocking policy for fast movers and slow movers

### Benefits Delivered

- Agile and responsive supply chain to fulfill customer demand
- Availability improved from mid 70s to mid 90s, thus reducing sales losses
- Dramatic improvement in stock mix – 86% reduction in ageing SKUs
- 54% drop in costs associated with cross-shipments
- Better ability to prioritize issues related to procurement, planning and dispatches

## About Tech Mahindra Business Process Services

Tech Mahindra Business Process Services is the BPO or BPM arm of Tech Mahindra – a USD 4.6 billion company with 117,200+ professionals across 90 countries, helping over 885 global customers

including fortune 500 companies. Tech Mahindra is amongst the Forbes list of Fab 50 companies in Asia 2016 list & in India's Top 50 Super Companies of 2016.

Entering a new era of transformations, Tech Mahindra Business Process Services has re-focussed energies towards 'Creating memorable digital experiences everyday' for customers.

We are part of the USD 19 billion Mahindra Group that employs more than 200,000 people across 100 countries. The Mahindra Group operates in key industries that drive economic growth, enjoying a leadership

position in tractors, utility vehicles, information technology, financial services and vacation ownership.

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