Design and Delivery of Differentiated Service

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Objective

- Ability to design and deliver multiple price-service combinations utilizing shared assets (parts, people, supply chain, technology)
  - Implication: Need ability to be operate at multiple points on the efficient cost service frontier

Why is this more important now

- Shifting onus of service to OEMs from customers: multiple contracts, focus of cost of ownership
- Increasing modularity and commonality of parts
- Customer service levels in higher service segments are increasing, making uniform service prohibitive
  - Ability to deliver higher service efficiently is dependent on ability to deliver lower service economically
How: Optimization Trade-offs Across Multiple Dimensions

- **Echelon Structure**
  - Stock parts for higher service contracts closer to customer demand

- **Indenture Structure**
  - Stock more higher indenture parts for high service contracts and more lower indenture parts for lower service contracts

- **Part Commonality across Service Contracts**
  - Higher stock of unique parts on higher service contracts; medium stock for common parts; lower stock of unique parts on lower service contracts

- **Part Criticality**
  - Higher stocking for parts essential to equipment mission

- **Supply Prioritization**
  - Expedite repair or procurement of parts

- **Demand Fulfillment Prioritization (Rationing)**
  - Reserve inventory for high priority demand and the on hand inventory is critically low.
Echelon-Indenture Structure: Pooling Economies vs Response Time

- **Depot**
- **Bases**
- **Field Locations**

Highest Cost vs Lowest Cost
Highest Service vs Lowest Service

LRU, SRU, SSRU
What is needed to take advantage of these strategies

- **Data**
  - Customer service contracts
  - Installed base, causals (optempo) by contract
  - Repair/replacement history/rates for multi-echelon multi-indenture network

- **Planning**
  - Coordinated approach from design (service product, supply chain), to asset optimization (what to stock where), to tactical planning (sourcing prioritization and redeployment), to execution (demand fulfillment prioritization)