Presentation to (Service Provider) Obsolescence, Life Cycle Management, GREEN, and the End of the World

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Agenda

- Obsolescence/Life Cycle Management

- NEBS and Green

- End of the World Scenario for the Network

  – 5 9's reliability is no longer a reality

- Today's punch line or takeaway

  – What can WE do together?

    - Awareness/Industry Group tied to NEBS

ZT Technology Solutions (www.zttechsol.com)

- ZT was created in 2010 to provide telecommunications, enterprise, and government with technology solutions to address their product and service life cycle needs, especially for legacy products. Our value proposition is to continue to support legacy products by providing advanced technical services; repair/replace options for defective and obsolete equipment and to provide a consolidation and migration strategy to newer and more advanced technologies.

- Our expertise is in legacy Data Networking, Switching, Transmission and Voice Messaging Platforms. We are currently headquartered in Hazlet, New Jersey and have employees in support centers located throughout the United States.

Issues

Maintain/Increase Profitability during Mature Phase of Life Cycle while technology, marketing, and support costs are increasing

Business Life Cycle Sales

Sales

Start-up | Growth | Maturity | Decline

Time
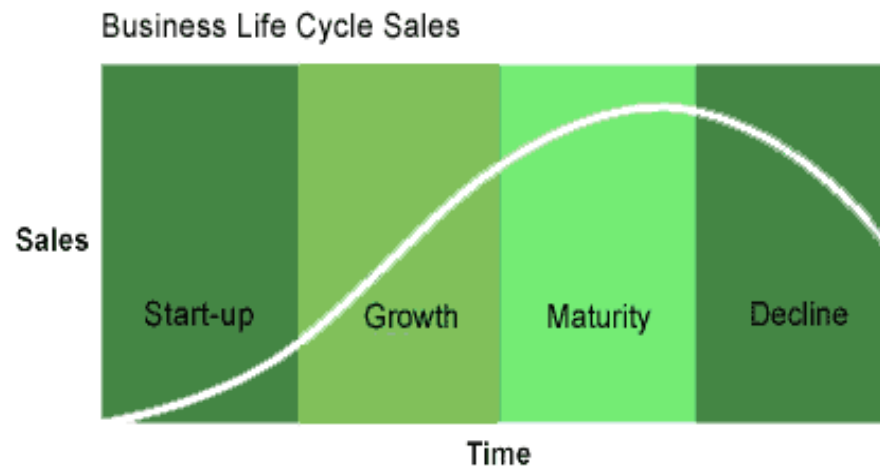
Current environment for Service Providers

- Growth/Reduction of wireless/wireline subscribers
- Rate of growth starting to decline for wireless
- Rate of decline for wireline ~10% year
- Wireless UP Wireline DOWN
- Wireline - Increased competition - Hiring marketing costs to attract and retain customers/Higher COSTS to provide service
- Entering Mature Phase of Business Cycle for Wireless/Decline Phase for Wireline
- Energy Costs are estimated to be >$700M/year
  - Energy costs/Carbon emissions/Real estate footprint
- Technology shift to 4G/LTE/FIOS requires increased capital expenditures and costs to support legacy 2G/3G and legacy TDM Network
- Consolidation -> Migration -> Transformation

Maintenance Cost Paradigm Current
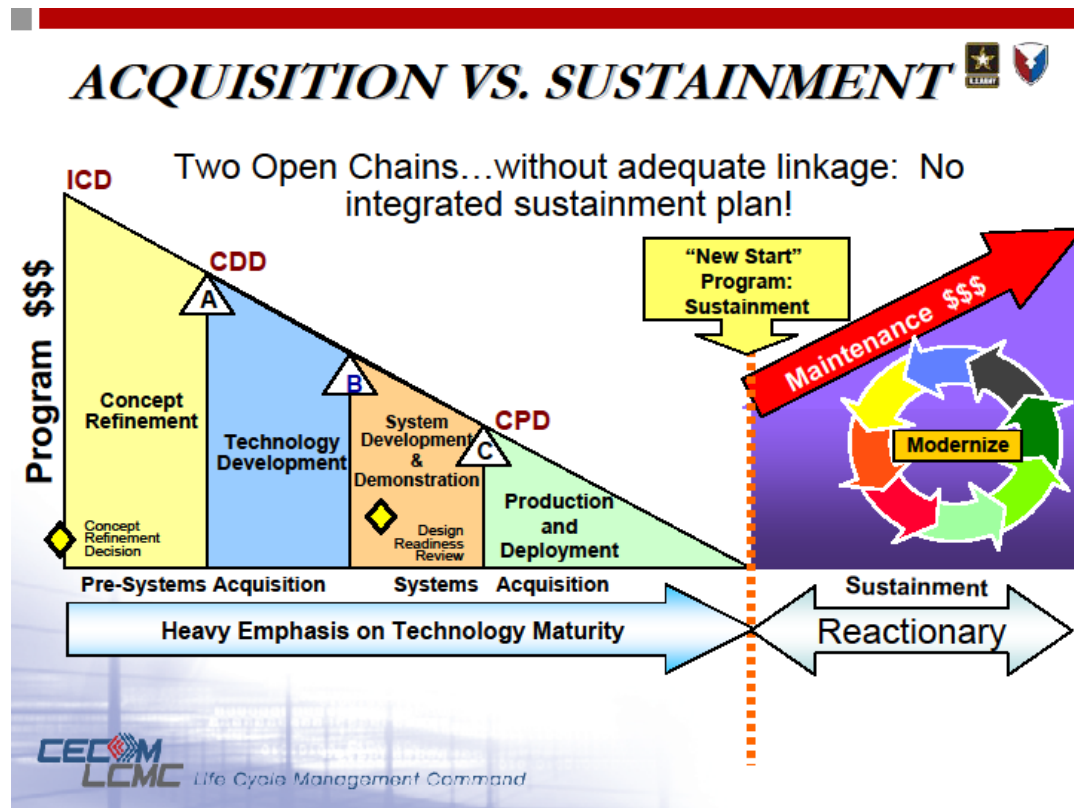
Maintenance Costs Paradigm
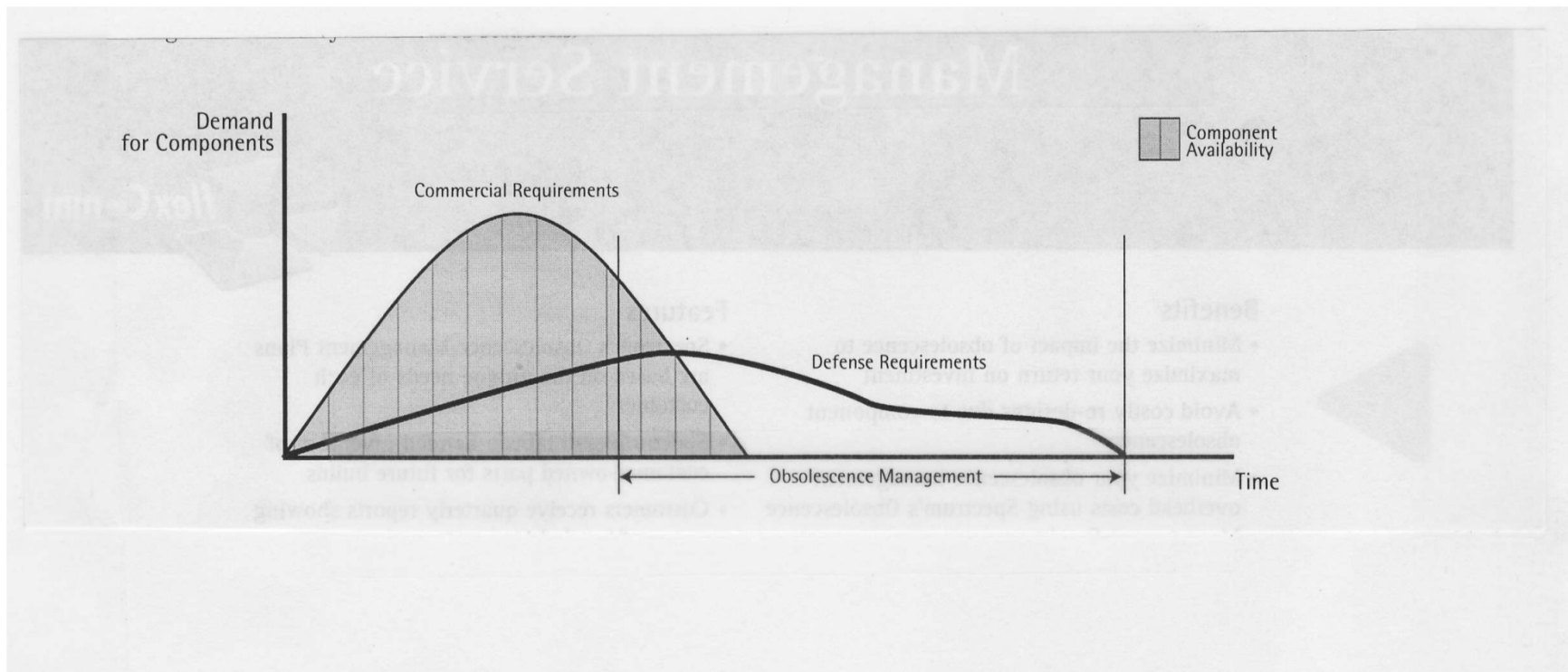
Legacy Network Issues

- $$$$$ Embedded Base: 20+ year old products
  - Aging telecom infrastructure
  - Legacy TDM represents largest part of the Network and is not going away soon
- Maintenance Costs of custom legacy equipment (telecom and IT) continue to increase (20%+ per year)
  - Vendors exiting the legacy business/no visibility to their business plans
- Legacy equipment has large footprint and energy and carbon emissions costs
- Equipment vendors facing loss of qualified personnel and inability to manufacture /repair equipment due to obsolescence issues
- Costs to replace equipment requires significant capital expense and payback period
- Today - Lack of spares/software support/repair capability jeopardizes service - End of the World scenario

Solution

- Service Provider's NEBS group makes this part of their charter
    - Create Industry Group /Conference tied to NEBS and End Of Life
- Develop Business Case that factors in energy/real estate and all maintenance/support costs in a consolidation/migration/transformation model
- Develop life cycle management plan for all legacy products include all support costs and service level metrics (technical support and repair/replace of defective parts)
- Develop migration/consolidation plan to reduce impact of legacy equipment and free up spares
- Expand to full outsourcing model that includes outsourcing of Tier 2 technical support personnel
- Develop a strategic outsourcing relationship to support legacy products
- Develop a business model that improves service levels and reduces service outages while lowering costs and migrates tot the next generation

Maintenance Costs Paradigm-Future
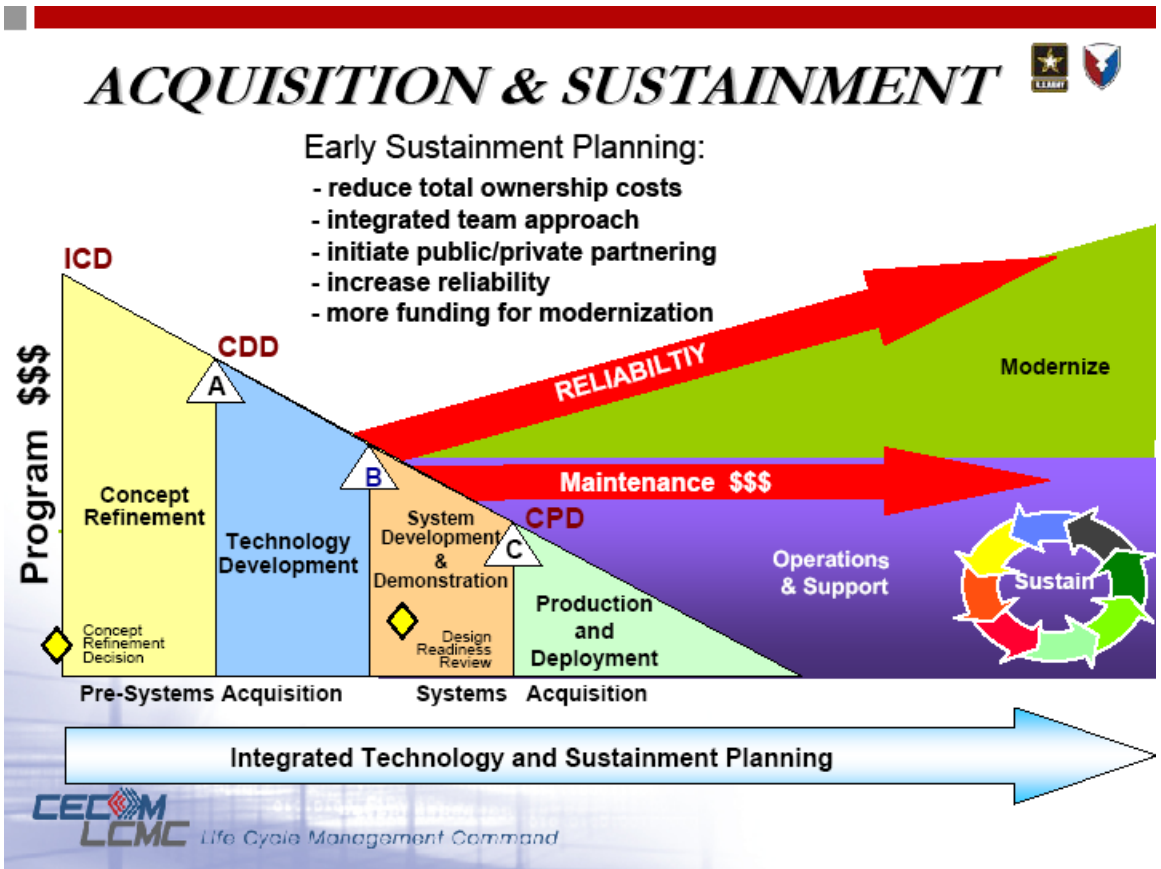
Things to consider

- Vendor Questionnaire as it relates to Life Cycle management of product
- Spares Management and Control
- Reparability /Replacement of Parts
- Inventory Audit
- Preventative Maintenance-Proactive maintenance Philosophy
- Software and Documentation repository
- EMS/NMS Issues and Supportability
- Tier 2 Support personnel-Cross training
- Business case: OP Ex vs. Cap Ex
- NEBS issues on Replacement
- Disk Drives, Fans, Filters, Power supplies, Custom Boards
- Escrow of hardware and software intellectual property
- Obsolescence and GREEN
- Consolidation > Migration > Transformation
- Outsourcing Business Models
- AR's (RTS and RES) Analysis
- Consolidation of Product Family Platforms
- Disaster recovery - Software Backups - Password repository
- Identify End of the World/ China Syndrome /Perfect Storm scenarios