NDIA Logistics Conference

Panel: Network Centric Logistics Operations - Industry Perspective

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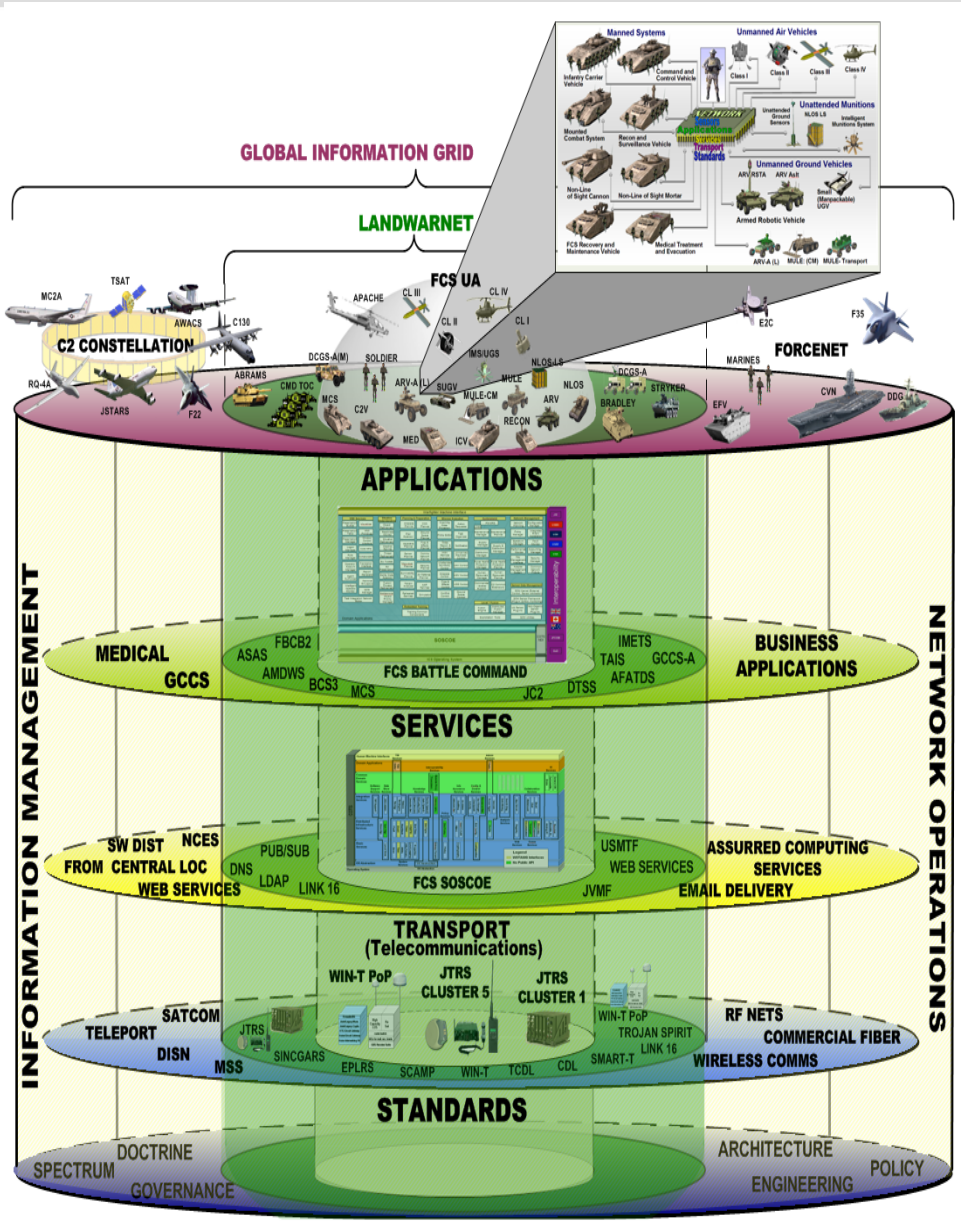
SAP's NCW vision

- Improve end-to-end, factory to foxhole logistics by enabling the integration of existing legacy systems with new modern technology
- Facilitate integration of DoD systems with commercial providers to extend the supply chain and improve asset visibility
- Allow the DoD to create composite applications, which provide unique functionality but are constantly integrated with core IT systems
- Enable the DoD to redesign business processes that can be adjusted rapidly to satisfy the nations requirements for its armed forces



NCW on the Battlefield

- **Theater Readiness Status – How? How often?**
  - Units, services, capabilities, materiel (autonomic status is best but lacks standardization - challenge)
- **Unit readiness and equipment readiness**
  - Unclassified information at the small unit level, when aggregated, rapidly becomes sensitive, if not classified
- **Force Multiplier**
  - Removing the human element in diagnostics
  - Predictive failure of asset = less failure during critical battlefield situations
  - Maximize availability over lifecycle of the asset
- **Integrated Demand with Supply Chain**
  - Accurate spare parts forecasting
    - Minimize stock outs
  - Integrated with ERP eliminates the bottleneck at last mile
    - Analyze real-time component data across all deployed assets with roll-up dashboards to provide a complete asset availability
  - Improved financial accuracy
  - "Lack of visibility and variability is the mother of all inventory…"
    - Have to stock more and ship more when you don't know what you need.

Logistics Technology Enablers

➢UID and the parts explosion capability of new systems

- Reduce (if not eliminate) the significant number of incorrect orders by ensuring that the service member ordering the part can see it
- Point and click – orders it, finds it in the shipment process
- Real time status and a series of “interrogators” capable of querying both active and passive RFID tags from a distance and enables organizations to:
  - Track/find people/equipment/materiel in transit
  - In storage/on the battlefield
  - Perform inventories (including weapons, munitions, sensitive items, drugs, maps, clothing, supplies, etc) in seconds vice hours/days/weeks
  - Search and rescue impact of having an individual carry with them a device that reports location (GPS phone signal).

The End State for Logistics

➢**Smart and Reliable –** An asset with reliability, maintainability, and prognostic and health management (PHM) inherent in the design, enabling the entire AL Concept.

➢**Technology Enabled and Supported Maintainer –** Trained maintenance personnel, with information, instructions, tools, parts and materials.

➢**Integrated Training Environment –** Integrated training environment mission-qualified operators and maintainers, regardless of location.

➢**Intelligent Information Infrastructure –** Intelligent information infrastructure that captures, analyzes and identifies system characteristics and interfaces with legacy support systems to provide information on that asset for every user worldwide (Factory to Foxhole)

➢**Performance-Based Best Value Sustainment –** A business approach that equally weighs risk, schedule, cost and technical aspects to provide a cost effective, affordable support system that reduces total cost ownership over the life cycle.

Lessons Learned:

- **Need for a standard "architecture" for transfer of data**
  - Data format must be standardized to capture - Miles logged, hours flown, engine/transmission "aberrations", etc.) from all platforms (trucks, tanks, helicopters, et al) to achieve total asset visibility

Must be managed by an enterprise-wide system

- System must be able to pull in data from onboard sensors and make it actionable – in real time
- System will use this data to trigger event (autonomic); to order parts needed, schedule maintenance activities, identify requirements for overhaul, etc etc etc
- System MUST be based to an Enterprise Services Architecture (ESA), which can be integrated seamlessly with ALL data sources across the enterprise/battlefield

Prioritization of data

- An increase in data can lead to paralysis through analysis
- “Sense and Respond” technology only works if there is a plan
  - Operational priorities vs. scheduled/requested maintenance = asset availability