



LOCKHEED MARTIN

Advanced Concepts

NDIA Presentation

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Perspective



Interoperability -- Weapon Systems Integration -- System of Systems. . . In the Context of Network-Centric Ops/Warfare, Architectures and Transformation

- ***NCO/W, SoS, Architectures and Transformation as a Driver***
- ***What Lockheed Martin Has Done***
- ***Where Lockheed Martin is Going***
- ***Thoughts and a Proposal on an Industry-wide Forum to Look at Our Role in Helping to Deliver NCO/W Capabilities***

NCOW, SoS, Architectures & Transformation. . . As a Driver



- *Fundamental Shift From Platform- to Network-Centricity Driving Operational Concepts and Desired Capabilities...Interoperability Isn't the "End State," It's the "Price of Admission"*
- *Customers Seeking Partners and Solutions . . . Not Just a New Program or Technology "Rush"*
- *Fundamental Changes in US/OMB/DoD Law and Policy and Governance Are Changing the Requirements, Acquisition and Programming and Budgeting Calculus*
- *Architectures and Their Accompanying Frameworks Are Emerging As a Requirements and Acquisition Management Tool of Choice*

Little to No Debate Any Longer About What and Why . . . all the Tough Challenges and Choices Are Beginning to Revolve Around How?

What LM Has Done



- ***Senior-most Leadership Committed and Intensely Focused***
- ***Aggressively Adapting to the Fundamental Changes In Our Customer Base, Their Expectations, and the Correspondingly Profound Change in the Requirements, Acquisition, and Budgeting Processes***
- ***Building on Recognized and Established Expertise in Technology Development and Integration***
- ***Using Our Experience and Efforts to Advance Beyond Systems Integration to Start Working SoS and NCO/W Levels of Integration and Capability***
- ***Significant Resource and Organizational Investments Centered on NCO/W and SoS***

Where LM Is Going



- ***Complete and Significantly Enhance Our Global Vision Network (GVN) and “Center It” on a NCO/W and SoS Perspective***
- ***Developing and Deploying New Competencies Central to Delivering “Plug-n-play” Interoperability, SoS and NCO/W Capabilities***
- ***Making Focused IRAD Investments That Are Centered on Delivering Interoperability and NCO/W Capabilities***
- ***Significant Lockheed Martin Horizontal Integration Initiatives***

LM Concerns



- *Danger of Migrating From Stovepiped Platforms to Stovepiped Architectures*
- *We Must Demand Precision in Our Taxonomy... The Word “Architecture” is Rapidly Becoming Corrupted*
- *Must Work the “Architecture Domains” Bottom up and Top Down*
- *There Is...Can Be...No Single Architecture*
- *Total Architecture Integration/interoperability Is Neither Desirable, Affordable or Achievable...Can't Afford to Be Discounted for Trying to “Boil the Ocean”*
- *Must Mature Our Respective Understanding and Use of Architectures . . . Above and Separate From the IT-Centric Environment*

Greater Industry Cooperation is Required to Deliver NCO/W Capabilities



- ***Strongly Believe a Changed Government / Industry Partnership Is Required***
- ***Also Support and Believe a New Industry-Wide Forum Is Needed***
 - ***To Work Recommendations for DoD on NCO/W-related Issues***
 - ***Forum Should Be Narrow in Focus***
 - ***Requires Independent Sponsorship, Perhaps Under NDIA With a Government Co-sponsor***