



NDIA 22nd Annual Conference

Department of the Navy (DON) Modular Open Systems Approach (MOSA) Status

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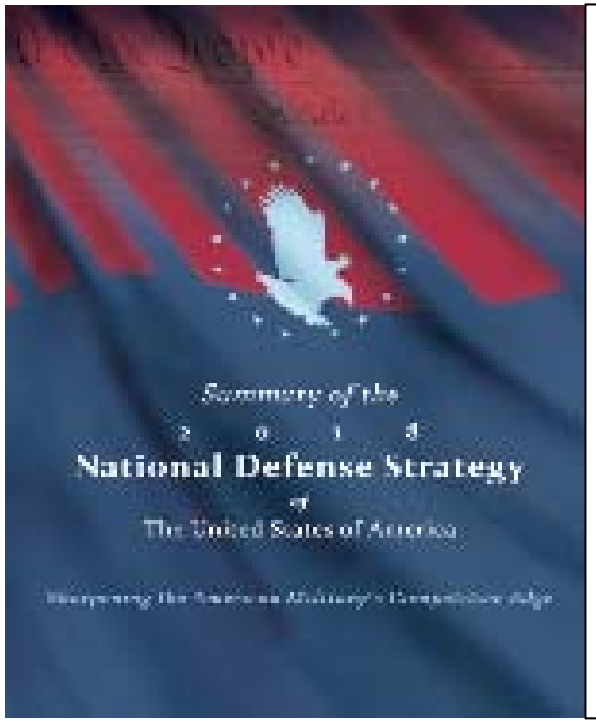
DON MOSA Objectives

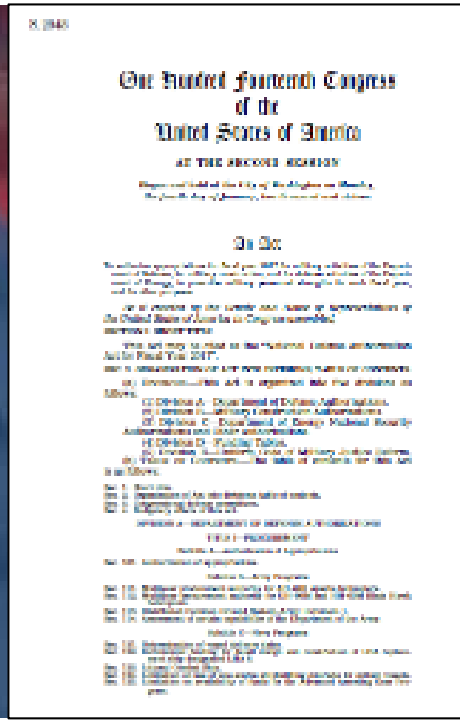
- **MOSA supports DON by allowing us to:**
  - Accelerate deployment of updated technology to Fleet
  - Reduce cost & cycle time
  - Adapt quickly to evolving requirements & threats
  - Continuously access current technology in supply base
  - Avoid risk from obsolescence
  - Promote ease of communication among systems and platforms in the Naval Operational Architecture

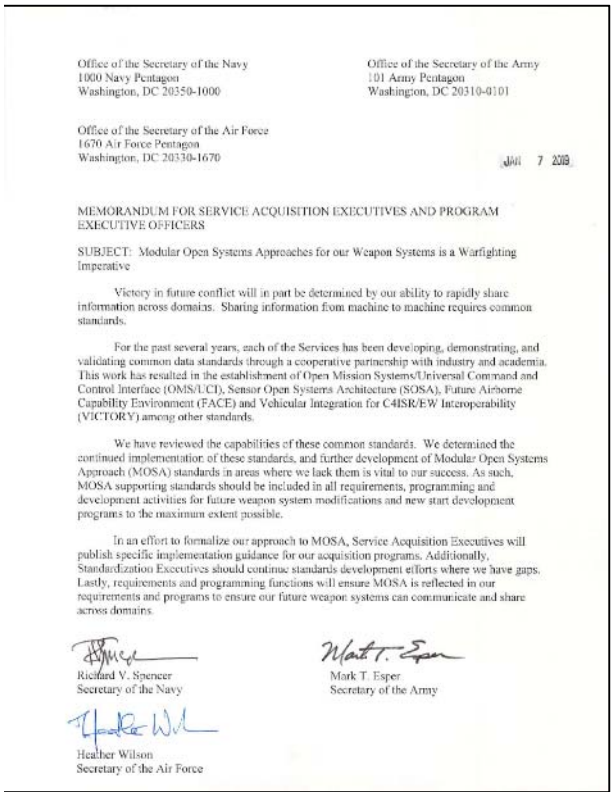
Policy & Guidance

2018 NDS: Modernization, Modular Upgrades, Speed of Relevance

2017 NDAA: Sec 805 MOSA Requirement for MDAPs







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MEMORANDUM FOR SERVICE ACQUISITION EXECUTIVES AND PROGRAM EXECUTIVE OFFICERS

SUBJECT: Modular Open Systems Approaches for our Weapon Systems is a Warfighting Imperative

Victory in future conflict will in part be determined by our ability to rapidly share information across domains. Sharing information from machine to machine requires common standards.

For the past several years, each of the Services has been developing, demonstrating, and validating common data standards through a cooperative partnership with industry and academia. This work has resulted in the establishment of Open Mission Systems/Universal Command and Control Interface (OMS/UCI), Sensor Open Systems Architecture (SOSA), Future Airborne Capability Environment (FACE) and Vehicular Integration for C4ISR/EW Interoperability (VICTORY) among other standards.

We have reviewed the capabilities of these common standards. We determined the continued implementation of these standards, and further development of Modular Open Systems Approach (MOSA) standards in areas where we lack them is vital to our success. As such, MOSA supporting standards should be included in all requirements, programming and development activities for future weapon system modifications and new start development programs to the maximum extent possible.

In an effort to formalize our approach to MOSA, Service Acquisition Executives will publish specific implementation guidance for our acquisition programs. Additionally, Standardization Executives should continue standards development efforts where we have gaps. Lastly, requirements and programming functions will ensure MOSA is reflected in our requirements and programs to ensure our future weapon systems can communicate and share across domains.

Richard V. Spencer
Secretary of the Navy

Mark T. Esper
Secretary of the Army

Heather Wilson
Secretary of the Air Force

2019 Tri-Service Implementation:
Standardization Executives should continue standards development efforts where we have gaps."

"…Service Acquisition Executives will publish specific implementation guidance for our acquisition programs."

"…requirements and programming functions will ensure MOSA is reflected in our requirements and programs to ensure future weapon systems can communicate and share across domains."

Overview & Recommendations

- Directs stakeholders to implement MOSA enablers to achieve MOSA benefits
- Assigns responsibilities to stakeholders
- Allows Program Office to tailor in Acquisition Strategy

- DON OSA Contracting Guidebook for stakeholders to implement the MOSA business and technical enablers throughout the acquisition lifecycle

- Share Lessons Learned & Reuse artifacts
- Database of Mature Standards & Technical Manuals
- OAAT Tool for program self-assessment (Technical & Business Categories)
- MOSA Contracting Incentive Strategies

- DAU CLE-019 Training Available
- Supplement with MBSE/Interface Management
- Address Skills Gaps

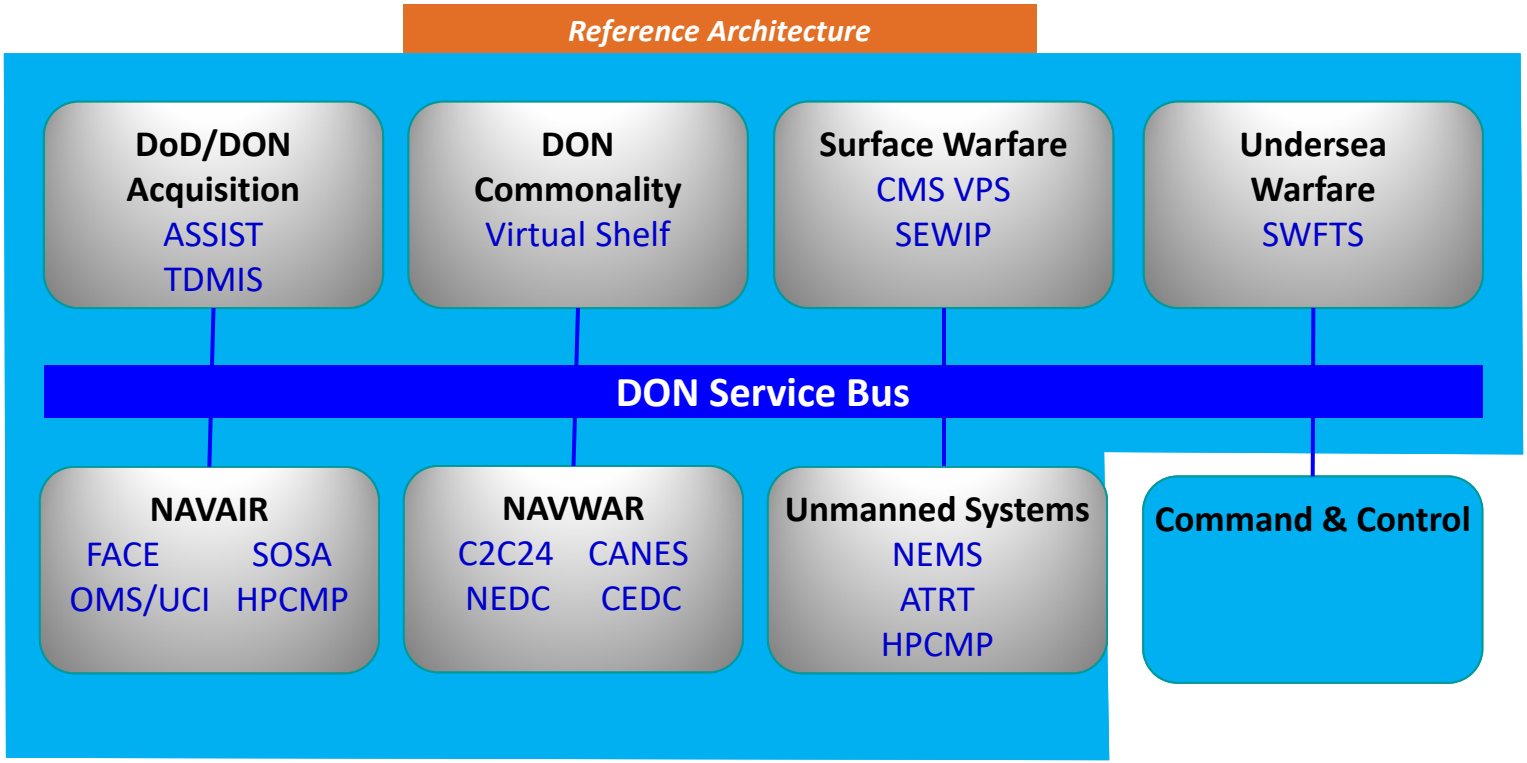
Major DON Tools for MOSA (1 of 2)

- **Management of DON MOSA documents via:**
  - DoD Acquisition Streamlining & Standardization Information System (ASSIST) database [DSP Standards]
  - DON Naval Systems Data Support Activity (NSDSA) Technical Data Management Information System (TDMIS) database [Tech Manuals]
  - Future Airborne Capability Environment (FACE) & Sensor Open System Architecture (SOSA) Consortiums
  - DoD High Performance Computing Modernization Program (HPCMP)
  - Naval Enterprise Modeling & Simulation (NEMS) Environment / Automated Test & Retest Overview (ATRT)

Major DON Tools for MOSA (2 of 2)

- **Management of DON MOSA documents via:**
  - Modernized MOSA Development & Delivery (M2D2) Compile-to-Combat in 24 Hours (C2C24) Environment
  - Navy Enterprise Data Center (NEDC) & Component Enterprise Data Center (CEDC) Hosting Environments
  - Combat Management System (CMS) & Virtual Pilot Ship (VPS) Standardization Platform Interface
  - Surface Electronic Warfare Improvement Program (SEWIP)
  - Submarine Warfare Federated Tactical Systems (SWFTS) Environment
  - DON Commonality Virtual Shelf Repository

Major DON Environments



- **Lead programs of record included by Area**
- **DON Service Bus ties to DoD enterprise architecture and Command & Control**
- **MOSA success requires early planning by Program Teams**

Way Forward

- Support DoN new programs with MOSA implementation to achieve benefits
- Continue to monitor DON programs with MOSA assessments
- Create solutions by partnering with contractors

Questions