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Office of the Chief Systems Engineer

Common Modular Open Architecture



Controlled By: US Army
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CUI Category: OPSEC
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HQDA ASA(ALT)

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PEO B

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Other
PEOs

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Enabling
Policies / Processes

OCSE Vision and Mission Statement

Vision

Exemplifying Engineering Excellence across all boundaries

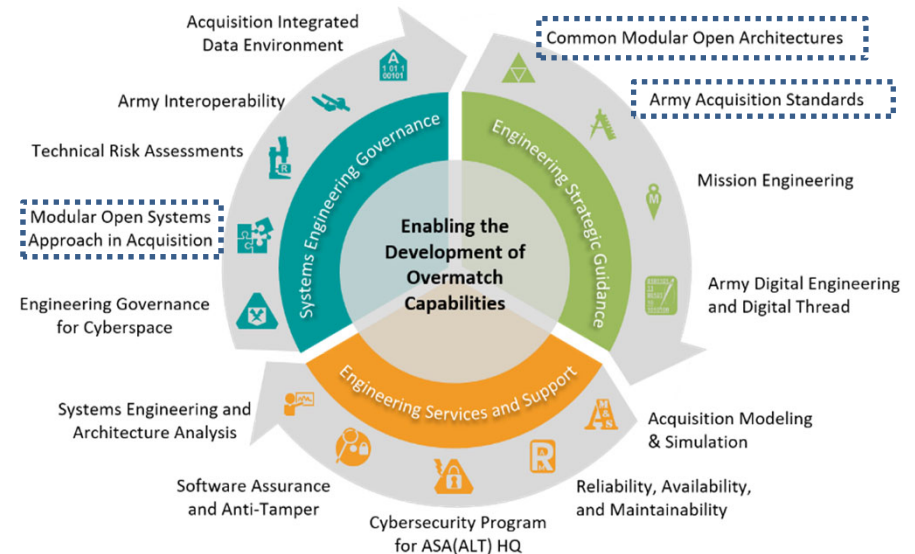
Mission Statement

Synthesizing Systems Engineering Governance across the PEOs in support of the Assistant Secretary of the Army, (Acquisition, Logistics, and Technology)'s Mission



OCSE Bridges ASA(ALT) Policy, Systems Engineering, Architecture, Cyber and Standards

OCSE Focus & Services



OCSE supports all PEO/PM CMOA efforts with the ASA(ALT) community



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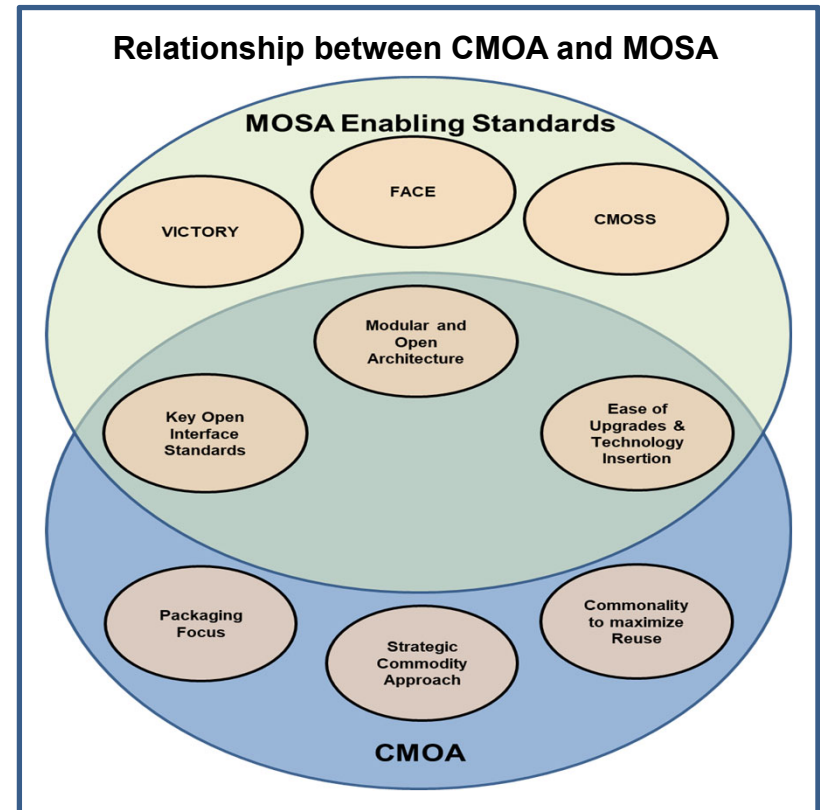
April 2021 Industry Day Recap on CMOA

The intent of CMOA is to amplify the impact and benefits of Modular Open Systems Approach (MOSA) to support Army modernization.

Modular, open architectures enable faster, more efficient capability upgrades and technology insertion.

In addition, CMOA efforts will employ a Strategic Commodity Plan, the use of common interface design standards and the end result will facilitate potential reuse opportunities for key commodities.

CMOA implementation has already expanded to many other systems / subsystems throughout the Army portfolio – in addition to the OMFV program.

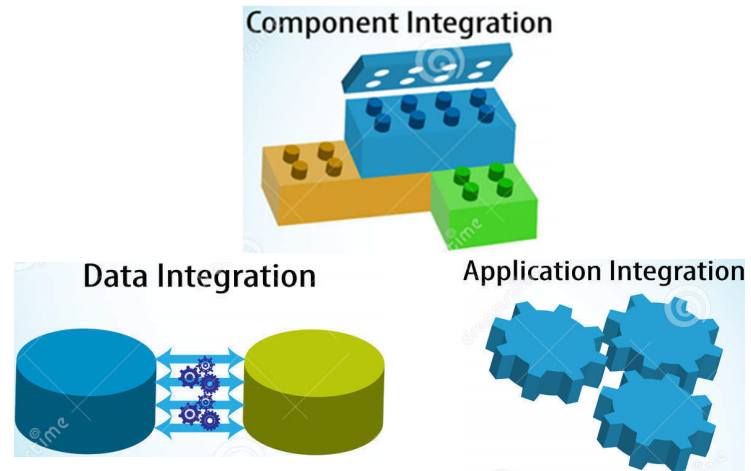




April 2021 Industry Day Recap on CMOA, Pt 2

Interface Design Standards

Facilitate development of common interface design standards for key commodities / subsystems to support Industry's systems development. In addition, define common packaging requirements across portfolio.



Subsystems Reuse Approach

The diagram illustrates the reuse of common subsystems across different platforms. On the left, four specific subsystems are shown: MC JBC-P, HMS-TSM, EW Card, and PNT Card. These are housed within a 'Common Chassis'. Three arrows indicate that these standardized components are integrated into different military vehicles: a Bradley Fighting Vehicle, a Chinook helicopter, and an Abrams tank.

Facilitate a Strategic Commodity Plan for common subsystems that meet MOSA requirements to maximize reuse for new Army vehicle acquisition programs, ease of capability upgrades and technology insertions.

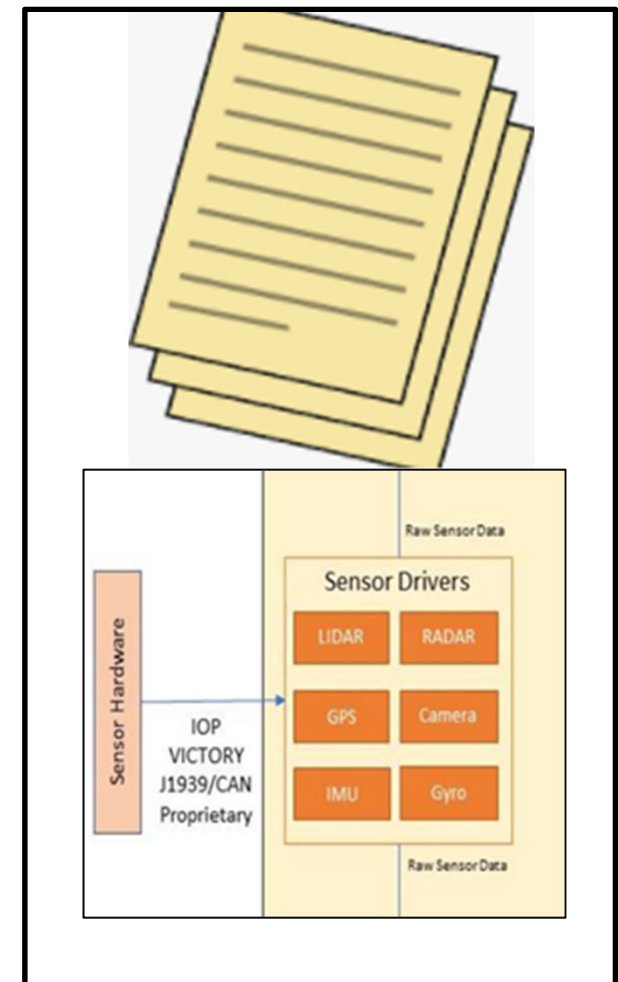




Key Take-Aways from Vendor/OCSE Discussions

The CMOA Industry Day in April 2021 had over 80 vendors attend. Eleven vendors requested a follow up meeting with OCSE and expressed support of the CMOA concept and agreed it would facilitate the product design process and future upgrades.

- Several mentioned that specific interface standards in the requirements would better facilitate their design process
- Overarching data architecture is needed to inform requirements
- One supplier identified that parts across different platforms may also have different part numbers
- Contracting Language
- Participants were primarily Tier 1 and Tier 2 Suppliers; one OEM





CMOA Current Efforts



Path Forward	Tasks
<p>Path Forward 1: Collaborate with PEO GCS PdL Ground Combat Product Integration Team & continue to work with Prototype Integration Facility (PIF) Council to brief CMOA and solicit their input.</p>	<ul style="list-style-type: none"> - Standardized A-Kit Vehicle Envelope (SAVE) - Potential Subsystems in their capability roadmaps ensuring openness and standardized interface designs - Present CMOA and solicit input/ideas from all DEVCOM PIFs for subsystems / components that would potentially benefit from CMOA approach
<p>Path Forward 2: Continue Collecting Modernization Roadmaps and Determine Best Commodities for CMOA application</p>	<ul style="list-style-type: none"> - Obtain remaining PEO capability roadmaps - Review and analyze roadmaps for common capabilities and existing MOSA initiatives - Create the list of potential products/subsystems to be included in CMOA efforts based on future upgrade needs, occurrences across fleet and timing

Color Legend: ■ Short Term | ■ Mid-Longer Term | ■ Long Term





Ongoing CMOA Discussions with Government Stakeholders

Stakeholder	CMOA Equities	Next Steps
Ground Vehicle Systems Center (GVSC) Prototype Integration Facility (PIF) - Warren, MI	- Proposed common fastener coatings for corrosion protection and nonhazardous properties	- PEO IPT currently updating NSNs for Ni Zinc coated fasteners, no further action needed
	- Standardize MIL-DTL-38999 series of connectors, significant complexity – not a quick win effort	- Need to assess ability to commit resources to this task vs benefits
Aviation & Missile Center Prototype Integration Facility (PIF) - Redstone Arsenal, AL	- CIRCM - Common Infrared Countermeasures (Survivability)	- Further investigate CIRCM for CMOA process implementation
PIF Council	- Present CMOA and solicit input/ideas from all DEVCOM PIFs for subsystems / components that would potentially benefit from CMOA approach	- Need to schedule presentation date (TBD)
PEO GCS Product Lead, Ground Combat Product Integration (PdL GCPI)	- Standardized A Kit Vehicle Envelope (SAVE)	- Conduct bi-weekly discussion
	- Potential Subsystems in their technology transition plans ensuring openness and standardized interface designs	- Determine collaboration effort
DoD Interagency Working Group	- Solicitation of CMOA input from more DoD OEMs	- Contact NDIA Committee Chair for SE Architecture

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Questions?



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