



Naval Open Architecture Military Aviation Architecture Conference

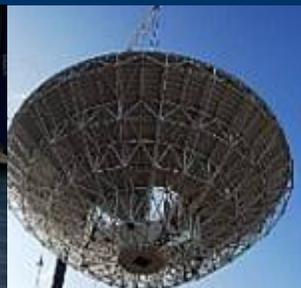
AIR



C4I



SPACE



SUBS



SURFACE



MARINES



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Mr. Nickolas Guertin
Director, Naval Open Architecture
PEO IWS 7B



Agenda

- Introduction To Open Architecture
- Intellectual Property Rights And Competition
- Contracts
- Avoiding Vendor Lock
- Product Lines
- Wrap-up



What is Naval Open Architecture?

Business Practices

- Government Asserts IP Rights**
- Acquires All Design Artifacts**
- Enterprise Collaborates on Reuse**
- Peer Reviews Held for Consistency**
- OA Contract Language Used**
- Transparent Across Enterprise**

Technical Practices

- Build Systems Of Components**
- Publish Interfaces**
- Excise Proprietary IP**
- Choose Standards Over Custom**
- Reuse Components**

Important Concepts

□ Competition and Innovation



□ Rapidly Fielding and Upgrading Systems



□ Software and Hardware Design Reuse





Acquiring Intellectual Property Rights (IPR)

- Disclose Designs Early and Often
- Reuse Previously Procured Components
- Enhance Interoperability
- Re-issue Contracts for Systems via Full and Open Competitions
- Enhance Life-cycle Affordability



Contract Competitions

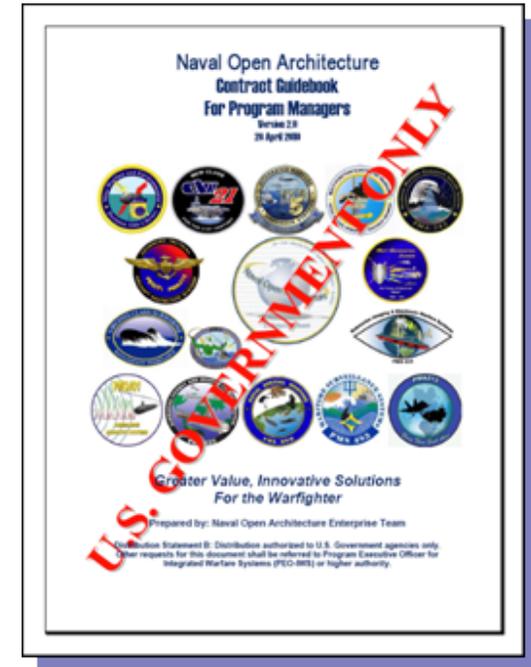
- Competition:
 - Agility
 - Cost-effectiveness
- Strategic Reuse
 - Reduces Development
 - Less Testing
 - Faster Fielding to War Fighter
 - Produces Higher Quality Products
 - Maintenance And Support Costs are Reduced





Naval OA Contract Guidebook

- Recommended For All OA Contracts
- Language Should Be Tailored When Needed
- Five Key Chapters (C, H, L, M, And Incentive Plans)
- Nine Appendices



Statement A version available at <https://acc.dau.mil/NOAGuidebook>



The OA Contract Guidebook and Vendor Lock

- Vendor Lock – Business Options Constrained
- Assert And Manage IPR
- Compete Regularly
- Remove Prime's Incumbent Advantages
- Government Manages Architectures And Interfaces
- Compete Severable System Components Regularly





Escape Vendor Lock -- Existing Systems

- Press Injection of OA Technical and Business Practices
- Assert Intellectual Property Rights
- Conduct Periodic Competition Of System Components
- Third-party (3P) Entrants Get Access To The Following:
 - Program Plan
 - Technical Documentation
 - Architectures
 - Software Development Kits
 - Interface Description Documents
- Level The Playing Field
 - Remove Prime's Size Advantages
 - Assert 3P Access to Labs with GFE





Today's Challenge: Buying the Same Thing Over and Over

The Enterprise Must Work Together as a Team to Improve



- Government To Government – Reuse Must Become SOP
- Government to Business – Change Our Relationship
- Technical Underpinnings For Success

How Do We Get There?



Naval Open Architecture & Product Lines Are Complementary

How Cost Savings Are Generated

- Open Architecture
 - Competition – Lower Costs
 - Tech Refresh of Hardware
 - Fast Delivery of Capability to Fleet

- Product Lines
 - Manage Feature Variations for Different Target Platforms
 - Low Defect Rates
 - Reuse Savings are Inherently Demonstrable





To implement OA, it is crucial that the Naval Enterprise speak with one voice, consistently using OA Tools and Resources

- Open Architecture Enterprise Team (OAET)
- <https://acc.dau.mil/oa>
- NOA 101 Continuous Learning Module
- Software Reuse Continuous Learning Module
- Open Architecture Assessment Tool (OAAT) Version 3.0
- Key Open Sub-Systems (KOSS) tool
- SHARE II / NESI asset repositories
- *OA Implementation Guide* (forthcoming)
- *OA Contract Guidebook for Program Managers*, Version 2.0



For further information:

- Naval OA Website: <https://acc.dau.mil/oa>
- Nick Guertin: nickolas.h.guertin@navy.mil