Air Force Materiel Command

Air Force Policy for MOSA Implementation

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- **BLUF: Use of Modular Open Systems Approach (MOSA) is required by law, but there is a large gap between Title 10 U.S. Code of Federal Regulations MOSA requirements and Air Force Guidance**

- **DoD and AF Level Guidance on how to translate Title 10 law is sparse – the result is programs modularize architecture, but have modularized closed architecture**

- **The DAF Solution was to create a Guidebook for Implementing MOSA In Weapon Systems**
  - **The Guidebook is not a checklist, but rather a summation of strategies designed to be built upon by each Center**

Why A MOSA Implementation Plan

- **Program Offices from across the Centers are each tackling the MOSA requirements in very different ways**
    - **Some focus on modularization of architecture**
    - **Some jump straight to application of standards**
    - **Many are unsure how to judge if their MOSA Approach is "good"**

- **The MOSA Implementation Plan ties together the Code of Federal Regulations, National Defense Authorization Acts, DoD Policy, and Air Force Policy all in one location and provide details for new programs and legacy programs**

- **The Plan is not designed to create a flood of new "shall" requirements, but centralize existing requirements and give "should" guidance to help program offices create a MOSA implementation plan for as part of their acquisition strategy**

How the plan was developed

- We stared with a target audience & Looking for what low level guidance was created by program offices trying to go it on their own

  - The USAF gathered MOSA SME's and Program Office Representation from every Center (Lifecycle Management, Nuclear Warfare, Sustainment, Research Labs, Test, Open Architecture Management Office and Digital Acquisition and Sustainment Office

- We then asked – What do programs need & What obstacles do you have?

  - Common response: If you can't give me a checklist, don't "shall" me to death

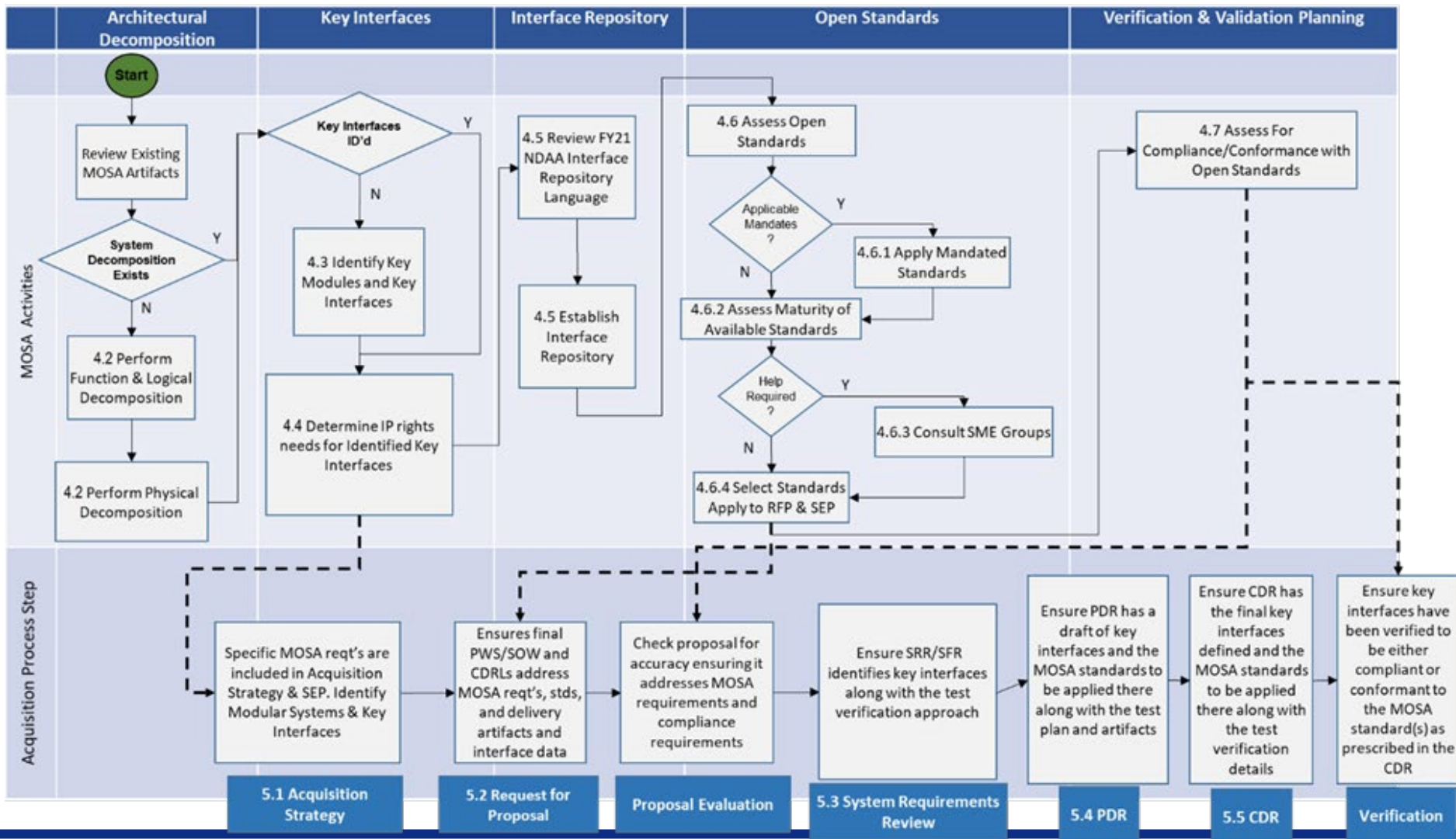- Then we built a walkthrough of steps that can be taken throughout the developmental lifecycle

What Obstacles Have Limited MOSA Implementation

- **Funding and Platform Constraints (Legacy Interfaces do Not adhere to MOSA Standards)**

- **Timely access to appropriate technical standards and appropriate licensing for sharing data**

- **Government Lacks Data rights to interfaces – Or Government vs Industry Data rights strategy do not align**

- **Learning Curve**

- **Security Classification of Platforms**

- **COTS vs MOSA decision**

MOSA Process for Major Capability Acquisition

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Key Features of the Guidebook

- **New Start Vs. Legacy Programs**
  - **Not all programs have the same options - the AFMC MOSA Guidebook focuses on different approaches tailored towards legacy vs new weapon systems**

- **Leveraging Digital Models**
  - **Models can help visualize new capabilities, helping programs target which interfaces matter most to apply MOSA principals**

- **Identifying Helping Organizations**
  - **Not every employee is a MOSA expert and its more efficient to know the experts than trying to be the expert in all things**

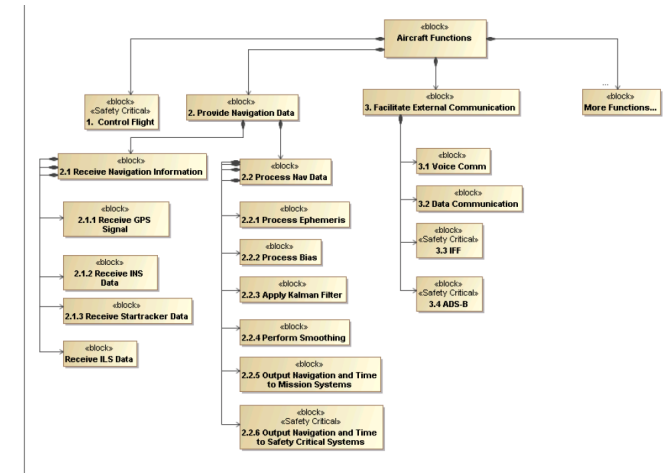*Figure 4-3 Example Functional Decomposition*

Next Steps for the DAF

- **The Space Force worked on creating a tailored Guidebook built off of the USAF product**

- **The Various Centers now have a Guidebook to build Standard Process Guides from**

- **Continual revisions based upon feedback and experience**

QUESTIONS?

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