

Applications Framework Process;

The migration of DoD C2 Programs and Initiatives to a Net-Centric Capability-based Environment

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Problem Statement

- Point-to-Point architecture with current analysis processes coupled with management of programmatic milestones will not allow DoD to achieve transformation
- The DoD requires an information environment that allows for:
 - Agile, robust, interoperable and collaborative
 - Sharing of knowledge between war-fighter, business, and intelligence users
 - Combined capabilities from multiple services to form new capabilities
 - Process for programs to be “Born Joint”
- Must leverage very significant investment in legacy applications

DoD requires approach to Migrate & Transition Legacy Applications to Net-Centric Capabilities

Goal

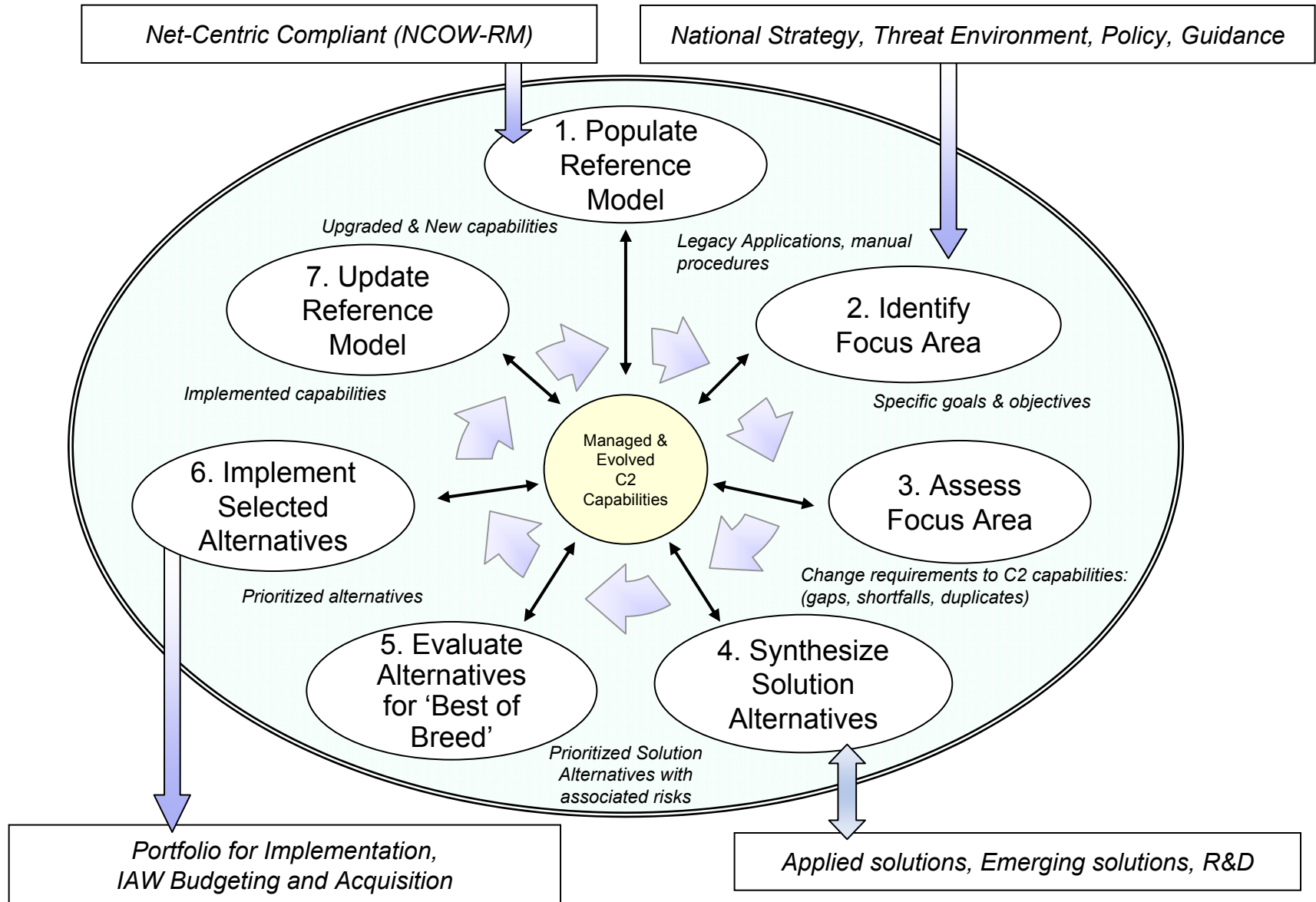
- Process to evolve from current Point-to-Point DoD IT inventory to utilization of NCES infrastructure
 - Establish model to populate GIG with services for:
 - Increased information sharing
 - Improved decision-making activities
 - Improved self-synchronization of participants
 - Map to existing business aspects of Department in systematic manner
 - KPP, Requirements, UJTL's
 - Combine capabilities from multiple services to form new capabilities and value-added services
 - Combine and tailor services on demand to meet mission requirements.
 - Leverage legacy application investment
 - Migrate Legacy Applications to Net-Centric Services



Flexible Speed of Command for the Warfighter

Migrate Legacy Applications to Net-Centric Services

Application Framework Process



1. Populate Reference Model

- Perform requisite Functional Analysis to determine Departmental C2 functional needs
 - Construct C2 business model for Department
- Identify inclusive and exhaustive set of C2 capabilities required to meet functional needs
 - Ongoing continuous process of discovery and update
- Identify **HOW** these needs are currently met
 - Is each need actually met?
 - Is need met with a legacy application?
 - Is need addressed within Planned or Development activity?
- Extend existing NCOW Reference Model to represent this information

2. Identify Focus Area

- Identify area of focus within extended Reference Model
- Prioritization of focus is based upon
 - National Strategy,
 - Threat Environment,
 - Policy,
 - Guidance
- Identify functions employed within this ‘Focus Area’
 - As identified within Reference Model
- Identify supporting capabilities required by these functions
- Identify specific goals and measurable objectives that focus area must achieve
 - Bound focus area for subsequent assessment
 - Establish evaluation criteria

3. Assess Focus Area

- Establish appropriate scenarios and use cases required to assess focus area
 - Reused as possible; made available for subsequent reuse
- Construct focus area within assessment environment
- Insure that assessment generates necessary information according to evaluation criteria
- Execute assessment and collect measurement results
- Analyze results with respect to established goals and objectives
 - Identify potential capability gaps, shortfalls, and duplication

4. Synthesize Solution Alternatives

- Collect gaps, shortfalls, and duplicates
- Identify potential solution alternatives from
 - Applied & existing solutions,
 - Emerging & under development solutions,
 - R&D
- Identify risks associated with each solution alternative
- Rank solutions by risks
- Develop recommended prioritizations of alternatives
- Group solutions alternatives
 - Insure consistent technical approaches within a group
 - Results in sets of solution alternatives for subsequent evaluation
 - Alternatives can be members of multiple groups

5. Evaluate Alternatives for 'Best of Breed'

- Determine which group of solution alternatives are best choice to implement
 - Measure against scenarios and use cases developed in Focus Area assessment
- Decisions include Budgeting and Acquisition
- Consideration must include
 - If migration of capability necessary?
 - Is replacement under development elsewhere?
 - Can legacy ability be maintained in meantime?
- Solution Alternatives grouped into prospective portfolio
 - Rank ordered as to best meeting goals and objectives established for originating focus area assessment

6. Implement Selected Alternatives

- Identify selected Solution Alternative Portfolio that ‘best’ meets goals and objectives
- Develop risk mitigation approach
- Measure implementation of portfolio for contribution to objectives
 - Cost
 - Schedule
 - Technical performance
- Adjust portfolio elements as required to maintain
 - Baseline costs, schedules, risks, and performance
- Collect technical and programmatic decisions
 - For subsequent process improvement

7. Update Reference Model

- Update extended NCOW Reference Model with
 - Function additions, upgrades and removals
 - Capability additions, upgrades and removals
 - Technical and programmatic decisions
- Include information from
 - Completed portfolio implementation
 - Under development as reflected in element baseline information
- Prepare for identification of next ‘Focus Area’

Summary

- Applications Framework is a path to achieve migration to net-centric capabilities
- Requires commitment and awareness from DOD at level of Y2K
 - But ongoing Transformation already does!
- Successful execution depends upon governance and oversight integrated with ongoing budget and acquisition processes