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AFLCMC/HI VENDOR DAY



Workshop **Common Computing Environment (CCE) & IT Lifecycle Management Tools**

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Common Computing Environment (CCE)



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Implementation Baseline v2.1



- **Published: 06 September 2013**
- **IB v2.1 defines the infrastructure, services, and security for all functional domains and geographic locations across the AF**
- **IB v2.1 offers to commoditized infrastructure options from DISA**
 - *DISA STAX (PaaS-style hosting service)*
 - *Secure Hosting and Virtualization – SH&V (Capacity Services) (IaaS-style hosting service)*
- **IB v2.1 includes 6 specific addendums**
 - **Enterprise Resource Planning (ERP) Systems**
 - **DEAMS Migration**
 - **AF Network Details**
 - **.NET for STAX**
 - **ELS Use Cases**
 - **Enterprise Claim Services**
- **C3I&N has the responsibility to develop and maintain the IB**



Workshop Discussion



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Problem Statement: AFPEO BES has insufficient operational baseline/domain knowledge available to determine Common Computing Environment (CCE) migration readiness, technology obsolescence, risks, and roadmap development for the BES portfolio

- **Action: BES-wide CCE Migration Data Call**

- **Expected Outcomes**
 - **BES Development, Test, and Operational Baselines documented**
 - **Holistic tool to identify BES program migration opportunities**
 - **Technology obsolescence identification and planning**
 - **Long-term efficiencies gained through CCE implementation and reduced customization**



CCE Migration Data Call Details



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- **Data Call Construct**
 - **BES Integration Office developed the initial questionnaire and coordinated content with BES engineering and C3I&N**
 - **Sections: Program / PMO Information, Technical Program Information, Infrastructure Information, Services Information**
 - **~150 Questions – includes extensive infrastructure details for multiple environments (production/development/test/etc.)**
 - **Representative sample includes mainframe systems, hybrids, java based systems, etc.; also includes GOV and KTR developed systems**

- **CCE migration readiness and risks are multifactorial**
 - **Current technical refresh plans within each program**
 - **Current architecture and code base stability within each program**
 - **Program lifecycle state, funding, etc.**
 - **Customer-driven requirements, operational impact, etc.**
 - **CCE availability**



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CCE Migration Data Call Activities



- **Iterative collection and analysis strategy**
 - ✓ **Concept study; questionnaire development**
 - ✓ **Pilot program trial run**
 - ✓ **Questionnaire refinement from pilot feedback**
 - **BES portfolio-wide data call (*in progress – awaiting final data*)**
 - **Data review, gap analysis, program follow-up and normalization**
 - **Application Rationalization and COA development**

Lengthy, detailed data call – but the potential ROI warrants this level of effort!



Application Rationalization Overview



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- **Application Rationalization Defined:** Iterative process used to evaluate an organization's IT resources to identify the minimum resources required to perform the organization's mission
- **Purpose:** Determine the optimal set of resources to assure mission success while simultaneously reducing life cycle expenses, energy consumption, complexity, systems infrastructure and hardware, software and facilities inventories
- **Objectives:** Reduce costs and operational complexity; improve security posture throughout the enterprise; standardize environments, applications, and processes
- **Goals:** Generate recommendations to identify the future state of each application to: (1) maximize cost effectiveness; and (2) reduce redundant/duplicative, low performing, difficult to maintain, and non-essential applications



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Application Rationalization Overview (Cont'd)



- **Most rationalization schemes were developed with the idea that a company's portfolio accomplishes its business and that company has control over what it does with the applications**
- **PEO BES's business is to develop and manage the applications on behalf of customers**
 - **Any recommendations involving the disposition of a program must satisfy the customers' requirements and funding (or bring \$\$\$)**
- **Governance for rationalization in the USAF is evolving**



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Application Rationalization High-Level Process



- **Discovery:** Document and inventory the operational baseline for the BES applications portfolio

- **Binning / Classification:** Assign the applications to “bins”
 - Bins could be established for mission area, domain, system architecture, infrastructure hosting location, etc.

- **Rationalization:** Determine the recommended end-state for each application; compare results to CCE with PM, Customer / Sponsor, and MSO
 - Gartner® TIME Model: Tolerate, Invest / Innovate, Migrate / Modernize, or Eliminate
 - Army has implemented the KMS Model (Kill, Modernize, Sustain)

- **Prioritization and Disposition:** Implementation of the application rationalization recommendations

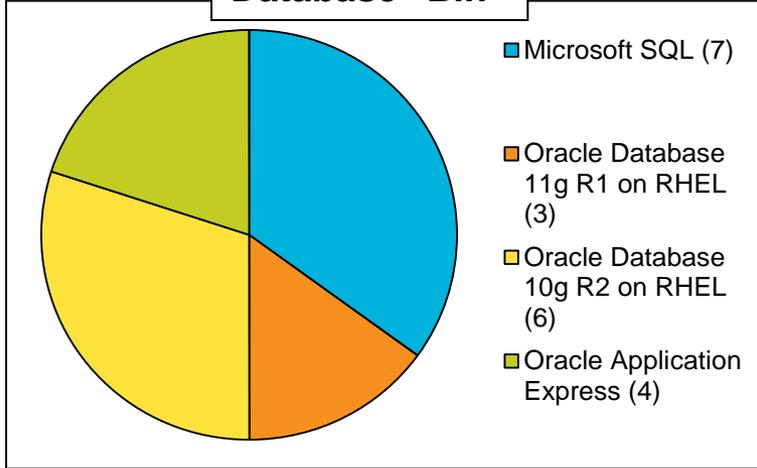


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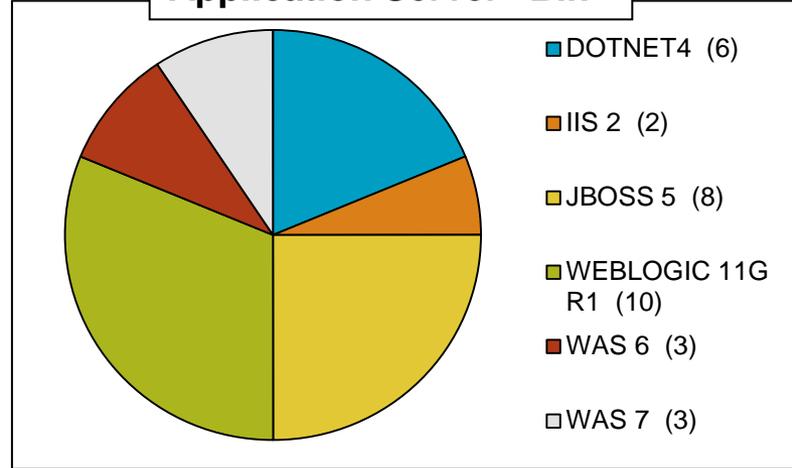
Application Rationalization “Binning” Examples



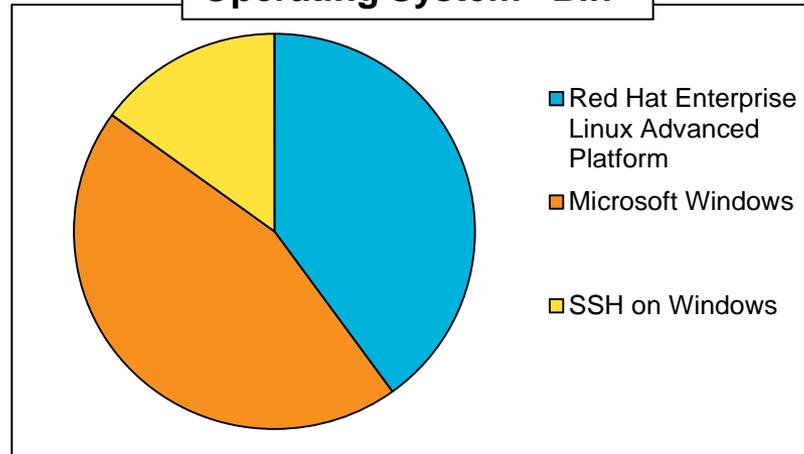
Database “Bin”



Application Server “Bin”



Operating System “Bin”



Notional Data



Impacts on Our Partners



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- **The AF is changing the way we deliver capabilities through common computing environment and commoditized infrastructure**
 - **Development, Test and Production environments will be prescribed and provided to program teams**
 - **One-off, program unique environments are targeted to be consolidated and reduced; this may change the way we solicit and manage future efforts with our partners**

- **What can our industry partners do?**
 - **Increase technical knowledge of TB/IB/OB implementation approaches (ERP and operational system migration)**
 - **Understand objectives/processes for implementing CCE, Commoditized Infrastructure, Common Tools**
 - **Help us understand what works in industry; bring us your best practices!**



Impact Scenario / Example 1

(Feedback Requested)



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BES will dictate that your release deliverables work with a specific version of Eclipse (Java apps) or Visual Studio (.NET). Your programmers can use whatever IDE you want, but the government acceptance criteria is that we want to open the source code package file with Eclipse or Visual Studio.

- **Are there any technical concerns?**
- **Does this break any terms and conditions in existing contracts?**
- **Will this constraint inhibit your ability to propose to a BES RFP?**
- **What are the contractual ramifications?**
- **What are the cost ramifications?**



Impact Scenario / Example 2

(Feedback Requested)



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BES will add language and/or modify existing sustainment contracts that your development and test environments will be provided as GFE. Vendors will no longer maintain their own development and/or test environments.

- **Are there any technical concerns?**
- **Does this break any terms and conditions in existing contracts?**
- **Will this constraint inhibit your ability to propose to a BES RFP?**
- **What are the contractual ramifications?**
- **What are the cost ramifications?**



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IT Lifecycle Management Tools

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Workshop Discussion



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Problem Statement: BES Directorate programs are using a wide variety of IT Lifecycle Management Tools and processes to manage their activities; AFPEO BES must inventory the actual tools in use and seek potential cost avoidance, savings, and efficiencies through consolidation of tools, environments, licenses and process standardization

- **What Industry recommendations and/or methodologies are available for a "best practice" implementation of portfolio management/ITLC tools across a portfolio having the architectural breadth and complexity (political and technical) of PEO BES? Tools/processes should include: Architecture, Configuration Management, Help Desk, Release Management, Requirements Management, Risk Management, Scheduling, and Testing**
- **Are there any customer references that PEO BES staff can follow-up with for implementation process details?**



BES Tools Data Call Overview



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- **Purpose: Inventory lifecycle management tools usage across the BES portfolio**
 - **Disciplines: Architecture, Configuration Management, Help Desk, Release Management, Requirements Management, Risk Management, Scheduling, and Testing**
 - **Data Points: Tool Name, Version, Documented Usage Process, Ownership, If Shared – With Who, License Count, User Count, License Type, Managed By, PoP, Annual O&M Cost**

- **Expected Outcome: Potential cost avoidance / savings / efficiencies through consolidation of environments, licenses and process standardization**



BES Tools Data Call Status



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- **Initial Data Call completed in July 2013**

- **A large portion of the data call is incomplete; numerous data elements reported as “N/A”, “Unknown”, or left blank**
 - **Some key data elements were more incomplete than others**
 - **Licensing type, ownership**
 - **Annual O&M costs for hardware, licensing**
 - **Documented Processes?: Significant number of “N/A” responses**

- **Incomplete data may be indicative of larger process issues**



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BES Tools Data Call Initial Analysis – Tools in Use



| Discipline | Top Tools | % Not Reporting | # of Unique Tools |
|--------------------------|----------------------------------|-----------------|-------------------|
| Architecture | Provision, System Architect | 22 (17%) | 14 |
| Configuration Management | ISMT, PVCS | 10 (7%) | 21 |
| Help Desk | Remedy, ISMT | 25 (19%) | 14 |
| Release Management | Serena, ISMT | 42 (33%) | 17 |
| Requirements Management | ISMT, Quality Center | 14 (10%) | 21 |
| Risk Management | ARM, Risk Radar | 8 (6%) | 7 |
| Scheduling | MS Project, MS Excel | 7 (5%) | 3 |
| Testing | Quality Center, Manual Processes | 60 (45%) | 15 |



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BES Tools Data Call Way Ahead



■ Integration Office Tasks:

- Refine analysis of the data; complete normalization**
- Collaborate with programs to fill gaps in data**
 - Determine when “N/A” really means “N/A”; assist with “Unknown” answers (i.e., licensing costs)**
- Conduct market research on capabilities and infrastructures**
 - Compare results to SAF/A6 Tools AoA Study**
 - Identify already-established mandates and leverage them towards standardization**
 - Collaborate with C3I&N to identify opportunities for consolidation, re-hosting, etc.**
 - Explore ELAs for common tools**
- Develop COAs / recommendations**
- Develop implementation plan, secure funding, and execute**



Impacts on Our Partners



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- **BES will eventually transition to common IT Lifecycle Management tools, environments, and enterprise licenses**
 - **New internal BES procedures and tools employed may change the way we solicit and manage future efforts with our partners**
 - **CDRLs (types/timing, etc.)**
 - **New GFI/GFE (products/timing, etc.)**
 - **RFIs and RFPs may require vendors to integrate with BES common tools strategy**
- **What can our industry partners do?**
 - **Help us understand what tools work in industry – and why; bring us your best practices!**



Impact Scenario / Example 3

(Feedback Requested)



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BES will dictate the IT Lifecycle Management tools used to manage activities like requirements management, configuration management, scheduling, test and evaluation, etc. and will modify existing contracts to provide tools as GFE/GFI.

- **Are there any technical concerns?**
- **Does this break any terms and conditions in existing contracts?**
- **Will this constraint inhibit your ability to propose to a BES RFP?**
- **What are the contractual ramifications?**
- **What are the cost ramifications?**



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Questions