BEA 10.0 Summary

February 14, 2013

Version History

Version	Publication Date	Author	Summary of Changes
1.0	February 14, 2013	BEA Development Team	Created for BEA 10.0

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1.   Introduction

The Business Enterprise Architecture (BEA) is the enterprise architecture for the DoD Business Mission Area (BMA). The BEA guides and constrains implementation of interoperable Defense Business System (DBS) solutions as required by the National Defense Authorization Act (NDAA) by guiding system alignment to end-to-end processes. It also guides information technology (IT) investment management to align with strategic business capabilities as required by the Clinger-Cohen Act, and supporting the Office of Management and Budget (OMB) and the Government Accountability Office (GAO) policies.

The Office of the Deputy Chief Management Officer (DCMO) releases the BEA annually to help defense business system owners and program managers make informed decisions in support of the Department. BEA 10.0 was officially delivered February 14, 2013.

Per the FY2012 – FY 2013 Strategic Management Plan (SMP), the Department will focus its efforts to improve overall management of its business system investments in seven areas.

- Strengthen and right-size the DoD total workforce

- Strengthen DoD financial management

- Build agile and secure information technology capabilities

- Increase the buying power of the DoD

- Increase operational and installation energy efficiency

- Re-engineer/use end-to-end business processes

- Create agile business operations that support contingency missions

As described in the Defense Business Systems Investment Management Process Guidance of June 2012, Section 901 of the FY2012 NDAA continues to emphasize Business Process Reengineering (BPR), strengthens the integration of the Business Enterprise Architecture (BEA) and the Enterprise Transition Plan (ETP), and redefines governance roles and responsibilities within the investment management process. Specifically, Section 901 enables a single Investment Review Board (IRB), chaired by the DCMO, to have a cross-functional, enterprise-wide view for evaluating DBS investments for certification and periodic review.

The foundation for the new IRB process and the context for portfolio review are the Functional Strategies, which define business outcomes, priorities, measures, and standards for DoD business functions. The Functional Strategies will be used to inform the BEA and be represented in the BEA when implemented.

2. BEA Alignment to Functional Strategies

The Defense Business Systems Investment Management Process Guidance of June 2012 also describes the new IRB process that introduced the concept of Functional Strategies. *"Informed by the Quadrennial Defense Review (QDR) and the DoD Strategic Management Plan (SMP), Functional Strategies will provide guidance to DoD Components on the strategic vision, goals, priorities, outcomes, measures and any mandatory enterprise solutions for a given Functional Area."*

There is a general alignment between the new Functional Areas and the Core Business Missions (CBM) that are represented in the BEA. For BEA 10.0 the CBM naming conventions will be maintained due to time constraints imposed by the February 14, 2013 delivery date.

BEA 11.0 will transition from the CBM naming conventions to align with the Functional Areas that support the Functional Strategies. Financial Management (FM) and Human Resources Management (HRM) will maintain the same naming conventions, Real Property and Installation Lifecycle Management (RPILM) will be represented as Installations and Environment (I&E). There are two Functional Areas – Acquisition and Logistics & Materiel Readiness – that do not cleanly transition from the CBMs Weapon System Lifecycle Management (WSLM) and Material Supply and Service Management (MSSM). As part of the development effort for BEA 11.0, the BEA content will be aligned with the appropriate Functional Areas.

This BEA 10.0 Summary document addresses the content changes according to the CBM naming convention.

3. Content Update

The majority of the content changes made in BEA 10.0 are a result of addressing the capability gaps and improvements that originated from previous BEA releases. In this section content changes relative to the BEA 10.0 release are organized by:

- Core Business Missions
- Laws, Regulations and Policies (LRP)

3.1. Core Business Mission

3.1.1. Financial Management (FM)

The following bullets outline the content changes made within the Financial Management (FM) CBM:

- FM Alignment - Align and normalize the ontology for FM processes to reduce ambiguity in interfacing E2E processes for a consistent view of the Department's Financial Management capabilities. Modified FM capabilities and process models in the BEA to ensure alignment with the System Functions or Capabilities in the FM Functional Strategy.

- Standard Line of Accounting (SLOA). Incorporated the SLOA standard as enterprise standard and a set of Standard Financial Information Structure (SFIS) elements within the BEA to improve financial information, improve interoperability between business systems, and provide better end-to-end funds traceability and linkage between budget and expenditures.

- FM Systems - The Department needs to eliminate unnecessary system redundancy through standardized processes and data. The BEA will be utilized to establish FM designated mandatory systems to increase process efficiency and reduce interface errors.

- FM Maintenance – Updated existing BEA content for SFIS Standard data, LRP and US Standard General Ledger (USSGL) transaction postings.

3.1.2. Human Resources Management (HRM)

The following bullets outline the content changes made within the HRM CBM:

- Capabilities Framework - Restructured the HRM Capabilities into an improved framework for specifying business requirements and initiatives as well as supporting business portfolio investment

management analysis. Sixteen of the twenty-four restructured capabilities also replaced the corresponding H2R Level 1 functionality groupings. The revised HRM Operational Activity Decomposition Tree more accurately reflects the current clusters of HRM functionality to be utilized in the DoD IT Portfolio Repository (DITPR) system mapping supporting HRM Capability based Portfolio Management.

- Enterprise Process Models to Complete Hire-to-Retire (H2R) Mapping: - In order to align HRM functionality with the H2R End-to-End (E2E) Business Flow, over 50 new HRM high level process models based on leaf level OV-5a activities were created. The analysis and mapping effort introduced in FY12 will ultimately result in detailed HRM BEA process models. The new HRM high level process models will facilitate business system staffs analysis efforts to gain visibility of how processes that they are implementing align to major enterprise business functionality groupings.

- Enterprise Standard Business Rules: Over 3800 HRM Enterprise Standard Business Rules were added to the BEA and associated to applicable processes. These rules will ensure the Service Integrated Personnel and Pay Systems (SIPPS) improve pay consistency and customer service coupling pay and personnel processes as well as related information utilized in pay computations. Through compliance with the HRM Enterprise Standard Business Rules and previously introduced HRM Enterprise Standard Business Process Standards, the SIPPS will improve the Department's ability to solve the inefficiencies and sustainability of the current processes and solutions and ultimately to achieve a clean audit.

- Manage Accession - Process models, associated business rules and activity models needed for the standardization of enterprise accession processing, improved data quality and information exchanges were added to the BEA. Stakeholders will use the operational activities, process models and associated business rules to guide and constrain their implementation/execution of the standardized processes. These refinements, formulated with the functional process owners, will enable a responsive, flexible, and efficient means to qualify applicants to meet routine and contingency operation manpower resource requirements. This new HRM related content will:

    - Establish the authoritative source for establishing electronic personnel, compensation and health record
    - Enable paper work reduction as well as reduction of data errors and redundancies
    - Reduce reliance on self-disclosure of information which substantially increases the quality of qualification decision
    - Result in decreased attrition at the training bases and decreased recruiter resources spent on applicants who are unlikely to qualify
    - Enable the exchange of applicant data with service recruiting, personnel, and medical record systems and execution of distributed business processes

3.1.3. Material Supply and Service Management (MSSM).

The following bullets outline the content changes made within the MSSM CBM:

- Procurement Data Standard (PDS) - PDS implementation will establish accurate and standard data related to Procurement Requests to enable the DoD to reduce transactional failures occurring in the Procure-to-Pay (P2P) E2E, drive down costs, achieve transparency and data integrity to enable E2E interoperability in DoD acquisition systems, improve internal controls for asset, financial auditability

and linkage between budget and expenditures. This information will be downloaded into ACART for compliance purposes.

- Purchase Request Data Standard (PRDS) - PRDS implementation has been designed to be congruent with the PDS, with additional standard data for Purchasing and associated data elements. PRDS will enable the Department to reduce transactional failures, drive down costs, achieve transparency and data integrity to enable interoperability in the P2P E2E, improve internal controls for asset, financial auditability and linkage between budget and expenditures. This information will be downloaded into ACART for compliance purposes.

- Government Furnished Property (GFP) – Added Laws Regulations and Policies (LRP) and approximately 15 business rules related to GFP DoD Policy Updates, to include DoDI 5000.64 & DoDI 4161.02 to ensure full accountability and auditability of Government property in the possession of contractors, supporting the existence and completeness of records and accurate valuation of Government property in the possession of contractors. This information will be downloaded into ACART for compliance purposes.

- Government Purchase Card (GPC) - Laws Regulations and Policies (LRP) were encoded in the BEA aligned to GPC related processes to enable DoD to eliminate errors and preclude attempts at fraud or embezzlement from going undetected and enhance the detection of fraud, waste, and abuse when using Government Purchase Cards. Additional processes were added to several Level 1 processes within the P2P E2E and these changes were integrated into other MSSM, FM and HRM artifacts. This information will be downloaded to ACART for compliance purposes.

- Instituted a common logistics business structure to support standardization and portfolio analysis. Established five new Capabilities and 245 new Operational Activities in the BEA. These Capabilities and Operational Activities will be integrated in the Operational Activity Decomposition Tree (OV-5a) in future BEA releases. For BEA 10.0 they are depicted on a separate OV-5a diagram for the purposes of portfolio management only. Logistic systems will map to standard integrated BEA content to meet all other compliance requirements. (Note: There are no new compliance requirements in BEA 10.0 for Logistics). Meta-Model changes were made to create tags to differentiate planned Capabilities and Operational Activities. Integration will take place in future BEA releases.

3.1.4. Real Property and Installations Lifecycle Management (RPILM)

The following bullet outlines the content changes made within the RPILM CBM:

- Enterprise Energy Information Management (EEIM). Improves the Department's ability to make informed investments regarding energy usage in the real property domain by establishing a capability to analyze comprehensive energy use and investment data and establish standardized processes and integrated systems to systematically track, analyze, and report facility energy and water use and related costs. Incorporated EEIM standards within the BEA for compliance assertion as a set of DoDAF products specifically to include:

    – Creation of EEIM Information Exchanges
    – Addition of EEIM Business Rules to reflect the re-engineered processes
    – Addition of the re-engineered OV-6c Business Processes

- Addition of DIV-2 to mandate information requirements and System Data Exchanges
- Addition of new Operational Activities, ICOMs, and associated Information Exchanges
- Update of OV-2 to assign a performer to the newly-identified Operational Activities

3.1.5. Weapon System Lifecycle Management (WSLM)

The following bullet outlines the content changes made within the WSLM CBM:

- WSLM provided support and collaboration with stakeholders and other CBMs for development of enterprise requirements in BEA 10.0.

3.1.6. Laws, Regulations and Policies

The BEA Laws, Regulations and Policies (LRP) Repository is the single, authoritative reference source of all requirements that constrain the Department's business operations. The Repository is maintained in the IBM Rational DOORS tool that allows the specific Laws, Regulations, and Policies to be linked to the BEA OV-5b Operational Activities, OV-6a Operational Rules, and OV-6c Business Processes as appropriate. It also serves as the benchmark against which all proposed architectural and systems changes are checked for integration into the BEA Compliance tool. The LRP Repository provides more user-friendly data for assistance in determining BEA compliance.

There are 383 Laws, Regulations, and Policies contained in the Repository for BEA 10.0. The products and reports relevant to BEA 10.0 including updates or changes to any Laws, Regulations, or Policies are outlined in the BEA LRP Repository narrative, accessible through the home page of the BEA 10.0 HTML website.

LRP Improvements completed in BEA 10.0

- Updated 43 LRP.
- Added 92 LRP.

One hundred thirty-five (135) source documents which constrain the activities and processes in the BEA have been added or revised within the LRP Repository. These LRP source documents were deemed relevant to the architecture by the individual CBMs and have been appropriately mapped at their respective levels to show their linkage with the OV-6c Business Process Model (BPM).

4. Structural Changes and Visualization Enhancements

4.1. Structural Changes

Structural changes to BEA for release 10.0 included changes to the Meta-Model, which enforces the proper structures and relationships between architecture concepts. The BEA Meta-Model is also the mechanism that supports expanded usability of the BEA. The following Meta-Model changes were made for BEA 10.0:

- To enable the new "planned" structure , the following Meta-Model properties were added:
  - Publish the "Planned Capabilities" and "Planned Operational Activities" separately in the AV-2 Integrated Dictionary from the existing Capabilities and Operational Activities
  - Publish the "Planned Capabilities" and "Planned Operational Activities" diagrams separately from the existing Capability Taxonomy (CV-2) and Operational Activity Decomposition Tree (OV-5a)

- 'Transaction Type' was renamed to 'DoD Transaction Code.'

- Added an artifact in the BEA for Compliance timing fidelity to assist BEA stakeholders in explicitly identifying schedule requirements for compliance within the BEA.

4.2. Visualization Enhancements

The DCMO recognizes that the ability to "see" the content of the BEA is just as important as capturing the content. Therefore, BEA releases continue to provide enhanced visualization of the existing content as well as the new content necessitated by the BMA stakeholders. The following items outline the latest visualization enhancements to improve the BEA user experience:

- For Procurement Data Standards (PDS) and Purchase Request Data Standards (PRDS) BEA 10.0 has a new visualization aid that provides a global view of all PDS and PRDS attributes in one Excel spreadsheet. It includes the name, definition, Information Exchange, Type, Length, Permitted values and business rules.

- The BEA 10.0 website was reconfigured to an "Accordion" layout with groupings of "Title Bars" with related content. As the user clicks a different "Title Bar" only the content related to that topic is displayed; the rest of the content hides behind their respective "Title Bar". This technique also allows for one main page to anchor most content pages eliminating the window cluttering that occurs when every link will open a new page. In addition an "Accordion" can be easily expanded for new content without the need for significant space on the navigation page.

- The BEA 10.0 website also added "Breadcrumbs" as a navigational aid to display all visited pages from the home page to the currently viewed page. All pages are linked for easy backwards navigation in a single line. The Breadcrumbs show the site hierarchy to the current page and allow for a one-click access to higher site levels.   "Breadcrumbs" can be particularly useful to websites with a deep structure of nested categories, such as BEA website.

Appendix A: Acronyms and Abbreviations

Acronym	Definition
BEA	Business Enterprise Architecture
BMA	Business Mission Area
BPM	Business Process Model
BPR	Business Process Reengineering
CBM	Core Business Mission
CIO	Chief Information Officer
DBS	Defense Business Systems
DCMO	Deputy Chief Management Officer
DFMIG	Defense Financial Management Improvement Guidance
DITPR	DoD IT Portfolio Repository
DoD	Department of Defense
DoDAF	DoD Architecture Framework
DOORS	Dynamic Object Oriented Requirements System
E2E	End-to-End
EEIM	Enterprise Energy Information Management
ETP	Enterprise Transition Plan
FM	Financial Management
GAO	Government Accountability Office
GFP	Government Furnished Property
GPC	Government Purchase Card
H2R	Hire-to-Retire
HRM	Human Resources Management
HTML	Hypertext Markup Language
I&E	Installations and Environment
IRB	Investment Review Board
IT	Information Technology
LRP	Laws, Regulations and Policies

MSSM	Materiel Supply and Service Management
NDAA	National Defense Authorization Act
OMB	Office of Management and Budget
P2P	Procure-to-Pay
PCA	Pre-Certification Authority
PDS	Procurement Data Standard
PRDS	Purchase Request Data Standard
QDR	Quadrennial Defense Review
RPILM	Real Property and Installation Lifecycle Management
SCOR	Supply Chain Operations Reference
SFIS	Standard Financial Information Structure
SIPPS	Service Integrated Personnel and Pay Systems
SLOA	Standard Line of Accounting
SMP	Strategic Management Plan
USSGL	United States Standard General Ledger
WSLM	Weapons System Lifecycle Management