

**Materiel Supply and Services Management (MSSM)
Overview and Summary Information (AV-1)
Version 10.0, February 14, 2013**

<p>The AV-1 is an executive-level summary of the Materiel Supply and Services Management (MSSM) Core Business Mission (CBM). Initially, the AV-1 is used to focus the MSSM CBM development effort and document its scope. The final version will include findings and recommendations from the effort.</p>	
Architecture Project Identification	
CBM Name	Materiel Supply and Services Management (MSSM)
CBM Description	<p>The Materiel Supply and Service Management Core Business Mission covers DoD's supply chain, responsible for ensuring enterprise business capabilities to maintain readiness for the warfighter and sustain the force at a level of performance that meets or exceeds Combatant Commander's requirements. The key elements of MSSM include the planning, sourcing, procurement, contract management and oversight, operational contract support (OCS), making and manufacturing, maintenance and repairing, performing logistics and field services, sustainment operations, delivery of property and forces, retail sales, and the return or retrograde of all classes of supply (materiel), and forces (deployments).</p>
Architect	DoD Office of the Deputy Chief Management Office (DCMO)
Developed By	Materiel Supply and Services Management (MSSM) AT&L DPAP, AT&L L&MR - SCI, DLA, US Transportation Command
Assumptions and Constraints	<p>The Materiel Supply and Services Management CBM:</p> <ul style="list-style-type: none"> • Will make maximum reuse of existing BEA models with changes only made when necessary. • Will address only DoD enterprise-level business and strategic plans, goals, objectives, and strategies, which are the primary drivers for the BEA. • Contain products that are useful to the enterprise. • Coordinate disparate architecture development efforts to ensure integration and support federation. • Continues with MSSM requirements definition by AT&L DPAP, AT&L SCI, DLA, USTRANSCOM and Military Services.
Approval Authority	The Deputy Secretary of Defense, acting through the Defense Business Council (DBC).
Date Completed	Architecture content freeze date, January 4, 2013 and final release date February 14, 2013.
LOE and Development Costs	Level of effort and projected and actual costs to develop the CBM Models may be requested from the Office of the Deputy Chief Management Officer (DCMO).

<p>Business Outcome</p>	<p>The Department of Defense manages a supply chain with \$90B of inventory containing over 4M items, posing a profusion of inventory efficiency and accuracy challenges. These challenges are magnified by the significant demand for forecasting, internal controls and data integrity. Currently, the Department has no known remedy to effectively address these short falls.</p> <p>The MSSM CBM is charged with providing key requirements for the DoD Supply Chain Enterprise, to include, as required, integration with the supply industrial base. The MSSM CBM enables Components to effectively deliver equipment and services that meet the needs of the warfighter through innovative policy, guidance, and oversight while being good stewards of the taxpayers' money.</p> <p>Use of End to Ends (E2E) support the development of interoperable systems, through identification of process value chains that span the functional domains. In a solution architecture, E2Es should leverage common key data elements/standards, which allow the organization to obtain a complete picture of E2E business event triggers (a.k.a. need) and all related business information anywhere in the E2E lifecycle.</p> <p>To ensure success, the DoD needs to establish a common business structure to support standardization, portfolio management and future gap analyses. Incorporating the Logistics Capabilities and Activities into BEA 10.0 requires a low level of effort and a low relative complexity factor, with incorporated work possessing high levels of maturity and certainty. This effort would achieve effective portfolio management, accomplishing the specified business outcome of an improved Enterprise Investment Decision Making environment.</p> <p>Therefore to address future challenges involved with managing the Department’s supply chain, the ODASD-SCI, led efforts to utilize the Supply Chain Operations Reference Model (SCOR), an Industry best example, to establish a foundation for developing Logistics Capabilities and Operational Activities within the BEA. While this is a business focus area for the robust development of the Architecture, more analysis is required to effectively develop the Supply Chain E2Es and determine the complete alignment of SCOR to the E2E Processes.</p> <p>The primary business benefits of developing architecture content for MSSM is to mature the following E2E Business Models in the BEA:</p> <ul style="list-style-type: none"> • Plan to Stock (P2S) • Procure to Pay (P2P) • Acquire to Retire (A2R) • Order to Cash (O2C) • Deploy to Redeploy/Retrograde (D2RR)
<p>Scope: Architecture View and Models Identification</p>	
<p>Models Developed</p>	<p>AV-2, OV2/3, OV5a, OV5b, OV6c, OV6a, SV-1, SV-5a, SvcV-5, DIV-2, Enterprise Standards, End to End Models, LRP</p>

CBM Capabilities	MSSM Capabilities described in the BEA include the following: <ul style="list-style-type: none">▪ Acquisition▪ Contracting▪ Contract Support Integration▪ Contractor Management▪ Deliver Property and Forces▪ Deployment and Distribution▪ Inventory Management▪ Logistics▪ Logistics Services▪ Maintain▪ Manage Receipt and Acceptance▪ Manage Sourcing▪ Manage Supplier Networks▪ Manage Supplies and Equipment▪ Perform Asset Accountability▪ Perform Build and Make and Maintenance and Sustainment▪ Planning
-------------------------	---

<p>Scope</p>	<p>AT&L SCI proposed BEA E2E enhancements to the P2S OV-5b Activities. To manage logistics resources, 240 new or updated Operational Activities (OA) would be included in the BEA 10.0 release under the OA 'Manage Property and Materiel'. Content for these portfolio management activities need to be included in the BEA so Services and Agencies can use ACART to assess compliance.</p> <p>There are currently Logistics Activities and related content in the BEA (Manage Property and Material and child activities) that are impacted by the new capabilities and activities; however, detail impact analysis and coordination with the logistics SMEs and other stakeholders are needed in order to integrate/re-align the new activities with current BEA content.</p> <p>For BEA 10.0, the recommendation is to provide an interim capability to add new Logistics Capabilities and Activities (non-integrated) for the purpose of portfolio management with the expectation that they will be integrated in BEA 11.0; Logistics content in current BEA will remain for compliance (business rules, LRP, etc.)</p> <p>As stated in the workshops during November 2012</p> <ul style="list-style-type: none"> • The specific purpose of putting the OA into the BEA 10.0 is portfolio management and therefore better Investment Decisions and; • Inclusion of this content into ACART for BEA compliance purposes was discussed but: <ul style="list-style-type: none"> ○ It was determined the work necessary to integrate the 240 OA with the existing cross-CBM OA and processes and; ○ The work necessary to include identifying new ICOMs or impacts to existing ICOMs and all product linkages would not be achievable within the BEA 10.0 development timeframe. • Due to this determination, a phased approach was recommended to achieve the overall goal. <ul style="list-style-type: none"> ○ For BEA 10.0, the OA will be created in the OV-5a Operational Activity Decomposition Tree and will be colored blue to indicate they exist only on the Decomposition Tree. The purpose of this would be to show stakeholders future direction for LOG and to appear in the DITPR to allow for improved portfolio management. They will not appear on any diagram nor have any content linked to them. ○ Following current procedures, these OA would be included in the BEA 10.0 container for ACART, however, with no linkages to Information Exchanges or Processes and there would be no content for which system owners could assert compliance. ○ This work would be addressed for the BEA 11.0 release. For BEA 11.0, the OA would be integrated into the existing content with integration performed with other PSA stakeholders. ICOMs would be identified or redrawn accordingly with corresponding Information Exchanges identified as being ready for compliance and process diagrams would be developed. This content would be released as part of the BEA 11.0 container in ACART and available for compliance.
<p>Time Frames Addressed</p>	<p>The BEA is the “To Be” architecture for transformation efforts at DoD. The current BEA “To Be” end state has intermediate time frames for implementation addressed in the Enterprise Transition Plan (ETP).</p>
<p>Organizations Involved</p>	<p>OSD AT&L & Comptroller, Joint Staff, DLA, USTRANSCOM, Military Services, Defense Agencies, and COCOMs</p>

Purpose and Viewpoint

<p>Purpose (Problems, Needs, Gaps)</p>	<p>The purpose of the MSSM architecture improvements are to provide Program Managers and System Developers with the information needed to ensure system interoperability and compliance through data standardization by defining data elements and standard system exchanges relevant to the procurement process.</p> <p>In the current environment , except where mature enterprise standards such as the DLMS exist (as discussed below), systems cannot exchange data efficiently because of the differing definitions of data elements between them.</p> <p>System transactions are often set-up on an as-needed basis which makes them inconsistent and costly to establish and maintain.</p> <p>Standardization of data elements will communicate what is necessary for data and system transaction compliance and interoperability.</p> <p>Asset Accountability and Materiel Visibility (or Asset Management) is a critical requirement to trace lifecycle management events related to acquisition, property accountability, storage, operation, maintenance, safety, physical security, retirement, and disposal by each individual item. As of 5 October 2011, more than 15 million items have been entered into the IUID Registry. The MSSM Community is working to implement Item Unique Identification (IUID) guidance as quickly as possible in order to help DoD realize:</p> <ol style="list-style-type: none"> 1. Improved item management and accountability 2. Improved asset visibility and life cycle management 3. Clean audit opinions of items (Property, Plant and Equipment; Inventory; Operating Materials and Supplies) and U.S. DoD financial statements. <p>The Defense Logistics Management Standard (DLMS) implementation transformation initiative involves the adoption and usage of flexible commercially based information exchange standards among the Department’s business systems. The DLMS are a body of documentation collaboratively developed that establish the mandatory business rules, data and information exchange format standards that ensure interoperability of business process execution across the enterprise. There are several hundred enhanced data capabilities currently incorporated in the DLMS transactions that the old DLSS standards cannot support; the flexibility of the DLMS affords DOD a virtually unlimited capability to support new requirements as they emerge. Some of the current enhancements are expansions of existing data fields such as the vendor part number which allows for full automated order processing of all part numbered items. Other enhancements are new data capabilities such as the Passive Radio Frequency Identification (PRFID) tag number and Item Unique Identification (IUID) that are essential to support those transformation initiatives. As Enterprise Resource Planning (ERP) systems are fully deployed, the capabilities of the DLMS will support those systems with robust data exchanges enabling business improvements, increased efficiencies and Materiel Visibility.</p> <p>The Procurement Data Standard (PDS) is a system-agnostic data standard that is intended to be adopted and implemented DoD-wide for creation, translation, processing, and sharing of procurement actions. It defines the minimum requirements for contract writing system output to improve visibility and accuracy of contract-related data, to support interoperability of DoD acquisition systems and to standardize and streamline the Procure-to-Pay (P2P) business process. Further, the PDS will improve visibility of contract-related data, enabling senior DoD leadership to make better informed business decisions. And finally, this data standard will support future migration to enterprise and federal systems and processes where appropriate.</p>
---	--

<p>Questions to be Answered</p>	<p>DoD supply chain performance management consists of processes that enable measurement and management of performance against defined strategic goals. Key business performance management processes include financial planning, operational planning reporting, modeling, analysis, and monitoring of key performance indicators linked to strategy.</p> <p>How are we accurately forecast customer materiel needs? How can we work with suppliers to ensure timely acquisition of materiel? How can we effectively and efficiently manage materiel? How can we sustain weapon system materiel readiness? How can we control supply chain costs? Who are our industry partners, and what is the state of our relationship with them?</p> <ul style="list-style-type: none"> · Who are our suppliers? · What products and services do they provide? · Where are our suppliers located? · How are our suppliers performing? · How are we actively collaborating with suppliers throughout MSSM process? · Do we capture and analyze supplier registration and certifications? · Is there a consistent method of payment to the suppliers? · Is there a consistent experience for suppliers? <p>How are we investing our funds to best enable the warfighting mission?</p> <ul style="list-style-type: none"> · How much are we spending with our suppliers? <p>Enterprise Metrics aligned with P2P: Measuring progress in Electronic Commerce –Electronic posting of contract as data to: EDA (Electronic Document Access system) Entitlement system –Electronic Invoicing –Electronic Acceptance to Entitlement –Electronic Acceptance to Accountable Property Measuring the ability to utilize Electronic Commerce –Automatic Payment of Invoices –Electronic Commerce Rate Measuring the impact –Interest Penalties Paid Commercial Payments –Payment Backlog Commercial Payments E2E Invoice Processing Costs E2E Invoice Processing Costs</p> <p>Enterprise Supply Chain Metrics: Demand forecast accuracy, Procurement lead time , Percent of contract obligations competitively awarded, Repair cycle time, Retrograde time, Customer wait time, Logistics response time, Fill rate, Tiered inventory turn , Excess on-hand inventory , Excess on-order , Denial rates , Asset visibility, Non-mission capable rates (proposed), NMC backorders (proposed), Value of inventory , Materiel acquisition prices, Total supply chain management costs, Value of Inventory, Backorders, Cost Recovery Rates. Inventory Turns, Repair Cycle Time, Denial Rate, Not Mission Capable Rates, On-time Order Fulfillment –Provider Perspective, On-time Order Fulfillment –Customer Perspective, Order Variability, Log Costs Percentages Reference URLs: https://imi.lmi.org/default.aspx; https://scitools.lmi.org/</p> <p>OSD (AT&L) is responsible for the development and direction of the Defense-wide supply chain integration policies and procedures. In the to-be framework, business intelligence is used to communicate important business information to Defense supply chain managers. The highest level objective is to track performance by comparing actual performance against targeted performance. It is through comparison to a performance goal that we identify shortfalls and negative trends.</p>
--	---

Architecture Viewpoint	<p>The MSSM CBM is developed from a planner’s perspective focusing on strategic plans, key DoD enterprise-level processes and information that are DoD-wide as established by statute, policy, best practice, or longstanding practice, and includes the systems that support those capabilities.</p> <p>The architecture is developed to support several viewpoints and stakeholders with differing, but related, needs as follows:</p> <ul style="list-style-type: none"> • Investment decision making (IRB Conditions) • Capability and interoperability analysis • Component system development • Operational planning • Compliance with DoD BEA • Transition planning • Data Standards • Policy Standards
Context	
Mission	<p>The overarching goal of the MSSM CBM is to ensure enterprise business capabilities meet readiness requirements for the warfighter and support DoD forces at sustained levels of performance to meet or exceed Combatant Command requirements.</p> <p>Further, MSSM is working to develop and maintain a common set of processes, data, and solutions/tools that can be used to understand DoD's supplier base and efficiently and effectively manage our partnership with them.</p>
SMP Goals	<p>Goal 6: Re-engineer/use end-to-end business support processes to reduce transaction times, drive down costs, and improve service</p> <p>Goal 7: Create agile business operations that plan for and sustain contingency missions.</p>
SMP Key Initiatives	<p>Improve the supply chain end-to-end process. (OUSD(AT&L))</p> <p>Complete mapping of “Procure to Pay” end-to-end processes by end FY 2012; determine processes outcome measure to monitor process improvement; establish performance reporting processes (NLT end FY2012)</p> <p>Institutionalize operational contract support. (USD(AT&L))</p> <p>Establish complete visibility on contingency business operations to achieve accountability and build a comprehensive common operating picture. (USD(AT&L)), (USD(C)/CFO), (DoD DCMO)</p>

<p>SMP Measures</p>	<p>N/A – potential misalignment of submitted BRD listed goal (goal 3/owner DoD CIO) and the actual related/measurable goal (goal 6/USD-AT&L)</p> <p><i>SMP Business Goal 6: Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service.</i></p> <p><i>Improve the supply chain end-to-end process. (USD (AT&L))</i></p> <p><i>Related measures:</i></p> <p><i>Measure: 5.4.2-2L: Customer Wait Time.</i></p> <p><i>Measure Owner: USD (AT&L)</i></p> <p><i>FY 12 Milestone: 15.5 days.</i></p> <p><i>FY 13 Planning Milestone: 15 days.</i></p> <p><i>Contributing DoD Components: Army, Navy, DLA</i></p> <p><i>Measure: 5.4.4-2L: Air Force Customer Wait Time.</i></p> <p><i>Measure Owner: USD (AT&L)</i></p> <p><i>FY 12 Milestone: 7.5 days.</i></p> <p><i>FY 13 Planning Milestone: 7.5 days.</i></p> <p><i>Contributing DoD Components: Air Force, DLA</i></p>
<p>Rules, Conventions, and Criteria</p>	<p>Rules: The Materiel Supply and Services Management (MSSM) CBM adheres to the DoD Architecture Framework (DoDAF).</p> <p>Conventions: The conventions and methodology to be followed are documented in the BEA Development Methodology and the Architecture Model Guide.</p> <p>Criteria: The Office of the DCMO establishes detailed evaluation criteria for the delivery.</p> <p>Information Assurance Posture: The MSSM CBM information confidentiality, integrity, and availability must be protected to the extent required by applicable DoD policy.</p>
<p>BEA Tasking / Linkages to Other Architectures</p>	<p>Tasking -- The 2005 National Defense Authorization Act (NDAA) requires architectures to assess and maintain investments throughout the DoD BMA.</p> <p>Linkages to Other Architectures – BEA is linked to the Federal Enterprise Architecture (FEA) Business Reference Model through the DoD EA Reference Models and federated with Component and program architectures through tiered accountability.</p>
<p>Tools and File Formats to be Used</p>	<p>IBM Rational System Architect v 11.4.1, Microsoft SQL Server, Word, Access, and Excel.</p>