

Human Resources Management

One Book

Architecture Management Plan



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1.0 OVERVIEW

1.1 Purpose

The Human Resources Management (HRM) Architecture Management Plan (AMP) is intended as a complement to the HRM All Viewpoint-1 (AV-1) Overview and Summary, dealing specifically with the development and maintenance of the HRM Enterprise Architecture (EA) which uses a tiered approach to building and creating products in order to capture varying levels of detail. This tiered approach also allows for federation or integration with other architectures.

1.2 Scope

The HRM AMP describes how varying levels of architecture are developed and integrated.

1.3 Organization of this Document

This document is divided into the following sections:

- Overview
- Managing the Evolution of the HRM EA
- Managing the Federation of HRM EA with other Architectures

1.4 Architecture Products Overview

The following table is designed to give a quick summary of the definitions of those EA products currently under development or planned and referenced in this document based upon the DoD Architecture Framework (DoDAF) (v2.0). Additional product information can be found in Section 8 of the AV-1.

Table 1-1 HRM EA Products

*Future Products

VIEWPOINT	VIEWPOINT NAME	PURPOSE/DESCRIPTION
AV-1	Overview and Summary Information	Defines the purpose, scope, objectives, and architectural approach necessary to integrate the HRM Enterprise Architecture. The AV-1 will identify the Key Performance Parameters (KPP), core processes and relationships to other architectures, limitations and constraints.
AV-2	Integrated Dictionary	Dictionary of terms for each architecture product. In every architectural release, the AV-2 is updated to include added, deleted, or changed names and definitions for all objects in the encyclopedia. The AV-2 is broken out by product for ease of use.
DIV-2	Logical Data Model	The HRM DIV-2 depicts a set of HRM data entities and their relationship, including their key attributes. It also includes data entities from other business areas as they relate to HR.



VIEWPOINT	VIEWPOINT NAME	PURPOSE/DESCRIPTION
OV-1	High Level Operational Concept Graphic	High level graphical/textual description of operational concept.
OV-2	Operational Resource Flow Description	Operational nodes, connectivity, and information exchange need lines between nodes.
OV-3	Operational Resource Flow Matrix	Information exchanged between nodes and the relevant attributes of that exchange.
OV-5a	Operational Activity Decomposition Tree	Capabilities, operational activities, relationships among activities, inputs, and outputs; overlays can show cost, performing nodes, or other pertinent information.
OV-5b	Operational Activity Model – IDEF0	Capabilities, operational activities (or tasks), Input/Output (I/O) flows between activities, and I/O flows to/from activities that are outside the scope of the architecture.
OV-5	Look ahead Node Tree	Provides a look at areas of the model that are being considered for decomposition in the future. Priority changes and time constraints may and will effect which areas are actually developed.
OV-6a	Operational Rules Model	One of three products used to describe operational activity—identifies business rules that constrain operation.
OV-6c	Event-Trace Description	One of three products used to describe operational activity—traces actions in a scenario or sequence of events.
StdV-1	Standards Profile	The HRM StdV-1 includes the standards necessary for interfacing with HRM's four enterprise systems— Defense Civilian Personnel Data System (DCPDS), Defense Integrated Military Human Resources System (DIMHRS), Defense Travel System (DTS), and Armed Forces Health Longitudinal Technology Application (AHLTA).
SV-1	Systems Interface Description	Identification of systems nodes, systems, and system items and their interconnections, within and between nodes.
SV-3	Systems – Systems Matrix	Defines relationships among systems in the HRM architecture, and can be designed to show relationships of interest, such as system-type interfaces or planned vs. existing interfaces.
SV-4	Systems Functionality Description	Functions performed by systems and the system data flows among system functions.
SV-5a	Operational Activity to Systems Function Traceability Matrix	Mapping of system functions back to operational activities.
*SV-5b	Operational Activity to Systems Traceability Matrix	The HRM SV-5b extends the SV-5a and depicts the mapping of capabilities to operational activities, operational activities to system functions, system functions to systems, and thus relates the capabilities to the systems that support them.



VIEWPOINT	VIEWPOINT NAME	PURPOSE/DESCRIPTION
SV-6	Systems Resource Flow Matrix	Provides details of system data elements being exchanged between systems and the attributes of that exchange.
SV-8	Systems Evolution Description	Planned incremental steps toward migrating a suite (or family) of systems to a more efficient suite, or toward evolving a current system to a future implementation.

2.0 MANAGING THE EVOLUTION OF THE HRM EA

This section discusses the planned evolution of the HRM EA, including Line of Business (LOB) analysis and sub-Mission Area architectures, over a designated 12 month period. This section will be updated every 6 months following the release of each new version of the HRM architecture in order to reflect the planned activities.

After the September 2005 release of the HRM EA, the HRM-level architecture has been developed based upon a six-month release schedule. The last release of the HRM Enterprise Architecture baseline was September 30, 2009. Each HRM Architecture release represents mature architecture information targeted to represent the breadth of HRM for Investment Priority Management, Business Enterprise Architecture (BEA) integration, architecture federation, and other cross-cutting purposes. Additional enterprise architecture detail to support in-depth analysis, such as continuous process improvement or specific portfolio analysis is contained in Thread architectures. Thread architectures are constructed of complete sub-architectures which are fully integrated into the parent HRM architecture. Thread architectures are based upon HRM EA Lines of Business, or HRM business capabilities.

HRM releases represent point-in-time releases for public consumption of mature architecture material derived from the Thread architecture analysis. Thread architectures are released as analyses are completed and may not coincide with HRM EA release dates.



2.1 Major Components of the HRM EA

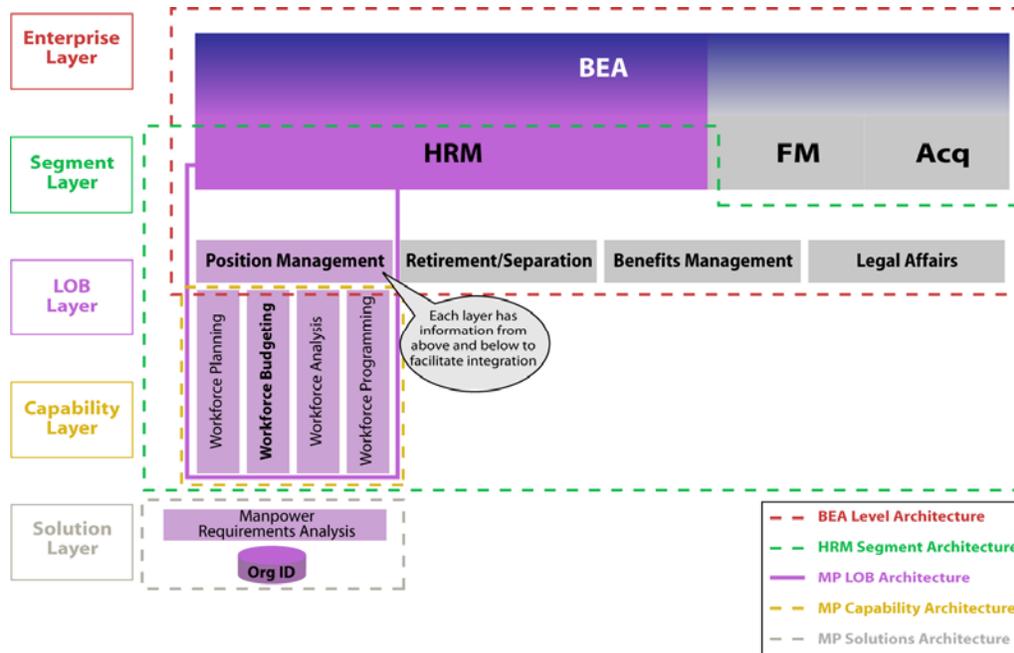


Figure 2-1 Architecture Layers

As shown in Figure 2-1, the HRM EA is composed of three “levels” of architecture products:

- HRM Enterprise/Segment Architecture Layer – Is the highest level, depicts HRM-wide perspective as it integrated into the BEA and the Global Information Grid (GIG).
- Line of Business (LOB)/Capability Layer – Focuses on the particular perspective of the Sub-Mission Area (Military and Other, Civilian HRM, and Military Health System). These are sub-architectures (with HRM being the parent) that depict a detailed level of information as a bridge to the Solutions layer architecture.
- Solution Layer – Contains the physical or executable layer of the architecture shown here as the Manpower Requirements Analysis or systems implementation.

Each of these architecture layers represents architectural perspectives and allows for the development of different levels of architectural detail. All of the levels contain the same basic set of products, with some additions (primarily system viewpoints) to allow for greater detail in each successive level. Every level is linked to the other through the integration of information from individual products. The high level information captured in HRM Enterprise layer products is decomposed in the Thread level LOB/Capability layer architectures.

2.1.1 HRM Enterprise/Segment Architecture

The top level of the HRM EA contains the Personnel Visibility (PV) component of the BEA and the HRM Segment of the BEA. This depicts the commonalities of human resources management



across the Department of Defense. One of its intended purposes is to serve as a common lexicon for architecture terminology (e.g., operational activities, system functions) for related architecture development across Department of Defense (DoD). It will also aid long-term organizational and technological planning.

This level of the architecture intentionally blends military-specific and civilian-specific processes, using neutral terminology. This forces the definition of such specifics to the lowest possible level in the architecture and represents the focus of HRM EA towards joint, common business processes and capability deployment.

The HRM EA allows for the distributed (federated) development of architectural details by the different HRM Sub-Mission Areas. The three Sub-Mission Areas within the HRM environment are Military Health System, Civilian HRM, and Military and Other HRM. Each Sub-Mission Area is responsible for developing an architecture that is able to both stand alone and to integrate into the over-arching HRM EA and the lower-level Thread architectures, striving towards as much commonality as is possible.

2.1.2 Sub-Mission Area Architectures

Sub-Mission Area-level architectures can provide valuable insights into overlaps and gaps of business and technology. The mission area integrating these architectures into the HRM EA depicts overlaps and gaps of business and technology across Sub-Mission Areas.

2.1.2.1 MILITARY HEALTH SYSTEM ARCHITECTURE

The Military Health System Architecture captures operational and system technical standards information pertaining to the management and distribution of health and health-related services across DoD.

2.1.2.2 CIVILIAN HRM ARCHITECTURE

The Civilian HRM architecture captures operational and system information pertaining to the management of Civilian HR functions.

2.1.2.3 MILITARY AND OTHER HRM ARCHITECTURE

The Military and Other HRM architecture captures operational and system information pertaining to Management of Military Human Resources and all areas under the purview of the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD (P&R)) not captured in the other HRM Sub-Mission Areas.

2.1.3 Line of Business (LOB)/Capability (Thread) Architecture Level

LOB/Capability or Thread level architectures expand on the Segment architecture and allow for additional architectural depth of focused efforts, rather than attempting to define the entire architecture in a low level of detail. Thread architectures vary from the other architecture levels because they contain a significant amount of physical architecture information (i.e., systems information) and form a key boundary layer between the abstraction of the HRM EA and the physical IT environment. System viewpoints developed for Thread architecture are more



representative of the physical system environment than the more abstract HRM level system viewpoints.

There is a high level of correlation between HRM LOBs and Enterprise Capabilities. If a tier of capability below the Enterprise Capability is defined in support of Investment Priority Management (IAW DoDD 8115.01, October 10, 2005, "Information Technology Portfolio Management") it may be necessary to define discrete Thread architectures for these business capabilities. These threads would be further breakdowns of existing LOB architectures.

2.1.4 Horizontal versus Vertical Threads

The HRM EA accommodates either horizontal (cross-cutting) or vertical (within a LOB) architecture threads. Either type of thread explores a particular business "theme." Horizontal threads explore primarily integration-related themes (such as Personnel Visibility) crossing multiple HRM Lines of Business, or exposing areas where HRM has particular integration needs with other mission areas. Vertical threads are designed to support the exploration of organizationally-based business needs for depiction in detailed transition-planning documents aligned to particular OUSD (P&R) transformation priorities.

2.1.5 HRM Data Architecture

HRM Data Architecture is a sub-set of the HRM EA. Due to the nature and complexity of some of the data modeling work, it is being managed as a sub-task. The HRM DIV-2 includes the entities, attributes, and subject area view diagrams.

The primary focus of the data work has been to align Common Human Resources Information Standard (CHRIS) to the HRM business requirements by mapping them to information exchange requirements and business rules. Additionally, as data requirements are integrated into the HRM architecture, they will also be migrated directly into the appropriate BEA products to support the inclusion of HRM business standards in the BEA. The HRM DIV-2 is being revised to be based solely on CHRIS, making it useable in the System Certification process.

As it matures, the DIV-2 will include:

- Mapping of DIV-2 attributes to CHRIS
- Continued compatibility upwards with the BEA
- Updates of subject area viewpoints to support Net-Centric transformation
- Additional data requirements aligned with the Thread architectures (Manpower, Assignment, etc.)

Other Data Architecture products will include a managed list of domain values tied to DIV-2 attributes, and enterprise taxonomy. The Data Architects will also contribute to the development of OV-6a business rules.



3.0 MANAGING THE FEDERATION OF HRM EA WITH OTHER ARCHITECTURES

This section describes the activities required to federate with other Architectures.

All architectures at all levels (including Component or Program architectures) within the DoD Business Mission Area are inherently connected in some fashion. As shown in Figure 2-1 Architecture Layers (Section 2), the HRM architecture components fit “between” the BEA and lower-level architectures. Since all architectures are connected in some fashion, but are developed independently, integration of architecture products becomes a significant challenge.

An underlying assumption of the HRM architecture development process is that EA at the HRM level **MUST** be integrated as well as possible with all other parts of the architecture federation. This is accomplished through two primary methods:

- Common Framework
- Dedicated Integration Points (layers) between products

The HRM EA is based upon the standard DoD Architecture Framework (Version 1.5). It follows the conventions, including the Core Architecture Data Model, as closely as is possible using Rational® System Architect®. However a common framework is not sufficient to actually link independently developed architecture products. To compliment the common framework, each product is designed with dedicated integration points or layers that enable integration with parent or child architectures. Of course independently developed architectures (primarily system or solution architectures) may not be aware of these integration points, so until they adapt to the overarching framework of the HRM EA (and the BEA), there will be major disparities between solution architectures and the overarching EA.

One manifestation of this disparity is the inability to “store” system or Program architectures in the same SA encyclopedia as the EA. Since each solution architecture uses different naming conventions and definitions (where available) for essentially the same architectural objects, at this time it has proven impractical to incorporate the physical architecture products in the same encyclopedia due to the vast number of redundant objects that are created. As a result HRM EA stores solution architectures in a physically separate encyclopedia and extracts essential information or objects and incorporates them into overarching system viewpoint products.

3.1 The BEA

The HRM community supports a number of DoD-wide initiatives. One of these initiatives is the development of the DoD BEA. The BEA is a blueprint of DoD’s business transformation and defines the future state of business operations and technology.

3.1.1 Integration Layers with the BEA

From its inception the HRM EA was designed with designated integration points (on a model-to-model level), with the BEA reflecting our interpretation of the BEA as an integrating framework focused on the interactions between the business areas. Some of these lines were impacted by



the decision that the BEA focused on DBSMC priorities, plus cross-domain and cross-mission area interaction.

These integration points:

- Exist for all products
- Migrate (increase in detail) over time
- Allow the HRM EA to focus deeper while supporting the broad but somewhat shallow BEA

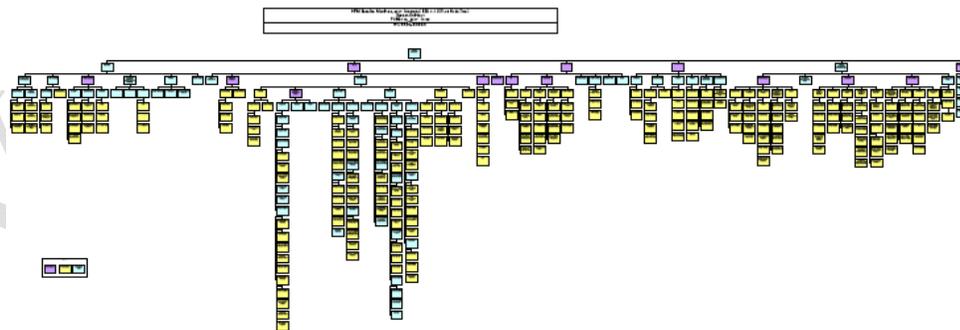
3.1.1.1 EXAMPLE INTEGRATION LAYERS

The integration points between products are often difficult to discern since many products, such as the DIV-2 (Logical Data Model), are represented as a network or Web and the overlaps between architecture layers occur all over the model. Two products, the OV-5a Activity Model and the OV-2 Operational Resource Flow Description, present good examples of integration techniques.

OV-5a Example

The OV-5a Activity Model is a functional decomposition (essentially a tree construct). In this case the activities colored in blue represent the integration boundary between the BEA and the HRM EA (see Figure 3-1 HRM-BEA OV-5 Integration). As the future integration “layer” incorporates additional HRM detail into the parent architecture, this integration boundary will be a jagged line. Orders of decomposition in the model do not have any intrinsic meaning. For example, activities “lower” in the model are no less important, complex, or have less impact, than activities closer to the “top” of the model.

Figure 3-1 HRM-BEA OV-5 Integration



OV-2 Example

The Operational Resource Flow Description diagram uses circular shapes to represent human roles or organizations and the information exchanged between them (see Figure 3-2 BEA OV-2 overlaying HRM OV-2). The HRM-BEA operational node addresses communications between HRM and other External entities. Cross-Mission Area interactions are reflected in both the BEA OV-2 and the HRM OV-2. The HRM OV-2 drills into the internal HRM interactions between



operational roles. These interactions also drive the development of the IDEF0 diagram ICOMS in both the BEA and HRM architecture. The BEA OV-2 is the first indication of a need for mission areas to federate or integrate architectural information.

Figure 3-2 BEA OV-2 overlaying HRM OV-2

