

Human Resources Management

Data Strategy



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1. Executive Summary

Ongoing Department of Defense (DoD) efforts to create a more agile, information-enabled warfighting force depend on the realization of a robust net-centric environment. Net-centricity compels a shift to “many-to-many” exchanges of data, enabling many users and applications to leverage the same data – extending beyond the previous focus on standardized, predefined, point-to-point interfaces. By securely interconnecting DoD people and systems independent of time and location, net-centricity supports a substantially improved global situational awareness and dramatically shortened decision-making cycle. As the Office of the Under Secretary of Defense for Personnel and Readiness (OUSD(P&R)) has embarked on efforts associated with realizing the DoD Net-Centric vision, it has become clear that a cohesive, comprehensive, flexible data strategy with features tailored to the requirements of the Human Resources Management (HRM) community is needed to ensure successful implementation of this vision. This data strategy is also necessary to support the unique requirements of the personnel and medical communities for DoD Business Transformation, as well as provide a vehicle for capturing and enacting requirements flowing out of the DoD Net-Centric Data Strategy (May 9, 2003) and DoD Directive 8320.2, “Data Sharing in a Net-Centric Department of Defense” (December 2, 2004).

In support of the DoD Enterprise Business Transformation Initiative, HRM functionality was defined as an important part of business transformation. The September 2002 National Security Strategy states “We must also transform the way the Department of Defense is run, especially in...recruiting and retention ... Innovation within the armed forces will rest on experimentation with new approaches to warfare, strengthening joint operations, exploiting U.S. intelligence advantages, and taking full advantage of science and technology” (DoD Directive 8100.1). Net-centricity offers great promise for attaining these objectives by providing access to previously unknown data, and increasing decision-making abilities. The Director, Personnel and Readiness Information Management (P&R IM), is directed by the USD(P&R) to coordinate and integrate the efforts of the various organizations transforming DoD HRM.

To assist in fully achieving this transformation, the Director, P&R IM, initiated the development of this HRM Data Strategy to identify approaches that will implement common data, improve flexibility in data exchange, support interoperability between systems, and achieve the data sharing goals outlined in DoD Directive 8320.2. To accomplish this, HRM organizations will ensure the right data exist and that these data are visible, accessible, and, most importantly, commonly understood. Authorized individuals and organizations must be able to obtain the data they require. However, to avoid the problem of data overload, it must be possible for authorized personnel to receive only the data they need (“smart pull”). The HRM community will use its knowledge of current and anticipated information needs to drive the development and operation of flexible data resources. This effort will allow data assets, such as system files, databases, documents, official electronic records, web sites, and data access services, to be collected and shared across the Enterprise to meet evolving DoD requirements.



Once implemented, this HRM Data Strategy will improve our ability to ensure that authorized users will have new, continuously enhanced capabilities to access data they previously could not access, including the ability to influence data producers to provide needed data and the capacity to leverage tools for exploiting available data to the fullest.

2. Purpose

This document defines the data strategy approach for the DoD human resources community under the auspices of the USD(P&R). This strategy is in alignment with the DoD Net-Centric Data Strategy, DoD Directive 8320.2, and DoD Enterprise business transformation initiatives that are designed to achieve Enterprise data goals. Examples of HRM data needs include cross-mission area and intra-mission area data sharing of HRM-specific elements and objects (e.g., employee payroll and benefits) and enterprise reporting of historical HRM data. The data strategy will serve as a catalyst for a future implementation plan that will define how this data strategy will be executed for the HRM community. These efforts will improve support for the provision and maintenance of accurate and timely HRM-related information for DoD personnel and military families during peacetime and war, and also establish a framework for future policies how data assets are defined and shared.

3. Introduction

The HRM Data Strategy describes a set of approaches and activities that HRM sub-mission areas will use to attain the goals described in the DoD Net-Centric Data Strategy and DoD Directive 8320.2. The data strategy framework enables the HRM community to define mission area-wide processes that will establish reusable components for guiding information exchange. The HRM Data Strategy:

- Supports the Business, Warfighter, Enterprise Information Environment, and Intelligence Mission Areas by providing timely, accurate, and useful information;
- Provides a framework for seamless sharing of data assets by incorporating data discovery and reuse;
- Supports data understanding by establishing the Common Human Resources Information Standard (CHRIS) that apply semantic consistency to functional expressions of information needs.

3.1 Overview of the DoD Net-Centric Data Strategy

The DoD Net-Centric Data Strategy and DoD Directive 8320.2 are key enablers of the Department's transformation and establish the foundation for managing the Department's data in a net-centric environment.



At the core of the net-centric environment are the data that enable effective decisions. In this context, “data” implies all data assets (e.g., system files, databases, documents, official electronic records, images, audio files, web sites, and data access services). DoD Directive 8320.2 requires the Department to be make data visible, accessible, and understandable as early as possible in the data’s life cycle (except when limited by security, policy, or regulation). One of the Chief Information Officer’s (CIO) goals is to populate the network with all data (intelligence, non-intelligence, raw, and processed) and change the paradigm from “process, exploit, and disseminate” to “post before processing.” The Deputy Secretary of Defense confirmed this goal in Management Initiative Decision 905.

As illustrated in Figure 3.1-1, “Net-Centric Shared Data Environment,” this paradigm allows authorized users and applications access to data without wait time for processing, exploitation, and dissemination. All data are advertised, tagged, and available for users and applications when and where they need it. In this environment, users and applications search for and “pull” data as needed. (Alternatively, users may receive alerts when data to which they have subscribed are updated or changed (i.e., publish/subscribe).)¹ This access to “raw”, unprocessed data allows users to mine and combine data in ways that the data producers do not, potentially discovering serendipitous, unexpected new knowledge in the process.

Net-Centric Shared Data Environment

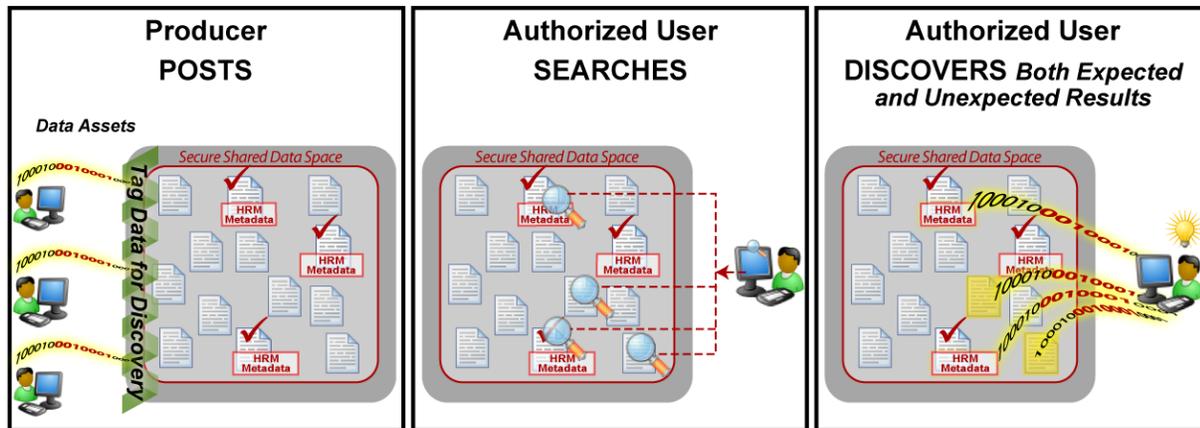


Figure 3.1-1 Net-Centric Shared Data Environment

¹ Department of Defense Chief Information Officer Memorandum “[DoD Net-Centric Data Strategy](#),” May 9, 2003.



Directive 8320.2 requires that data be enabled to be trusted (is authentic) and support interoperability. Additionally, the policy requires that communities of data producers, data consumers, and system developers (i.e., COIs) become the principle mechanism for promoting agreements on data semantics (the meaning of the data) and structures (e.g., data exchange structures such as models or schemas) to achieve net-centric data sharing.

3.2 HRM Functional Data Working Group

The HRM Functional Data Working Group (FDWG) is a standing work group that has supported the process of resolving data issues and improving data standards and practices for over a decade. The HRM Data Strategy will rely on the HRM FDWG to be the entity that performs many data stewardship and standardizing tasks. At a minimum, it is envisioned that the HRM FDWG will coordinate the management of data, determine the framework into which data fits, and direct development of common vocabularies. The FDWG will work with subject matter experts for the functional areas of HRM as well as program managers, system owners, developers, data consumers, Component managers, and others. The HRM FDWG will develop and provide guidance for the proper collection, storage, and processing and sharing of data in the HRM community. This is not to imply that it will dictate acquisition guidance. Rather, the HRM FDWG will provide guidance to ensure that data is collected, maintained, and shared in ways that will prevent corruption of the information that the data represents.

4. HRM Data Strategy Framework

The key to the HRM Data Strategy is an executable framework for implementing the DoD Net-Centric Data Sharing policy for the HRM Enterprise. In addition to accomplishing the goals outlined in the DoD policy, this framework will enable the HRM community to fulfill stakeholder needs such as reporting, access to HRM applications, information sharing, communications, and knowledge management, while maintaining security assurance, personal privacy, data synchronization, and workflow. Current Department budget and development cycles require that implementation of this strategy will be a phased effort as new systems are built or old systems are updated. It is envisioned that this effort will be part of the normal Planning, Programming, Budgeting, and Execution (PPBE) and Acquisition processes. A massive one-time conversion of all the systems in the HRM community is not realistically possible.

4.1 Data Policies, Standards, and Business Rules

Data policies, standards, and business rules ensure access to data by authorized users and assist in denying access to unauthorized users. Standards and specifications are a combination of industry standards (e.g., Extensible Markup Language (XML)) and federal standards used to develop common understanding and interoperability for sharing data across the DoD Enterprise.



The HRM FDWG, supported by technical data specialists at the P&R IM office, (and where appropriate, reusing products developed by other programs, projects, and initiatives) will govern the development and utilization of standards, business rules, data requirements, and mechanisms for promoting agreements on data semantics and structures including:

- Provide guidelines for meeting policy requirements outlined in DoD Directive 8320.2;
- Identify governance structures and processes;
- Address and resolve identified problems presented by the HRM community;
- Develop the data architecture portions of the HRM Enterprise Architecture that support transformation initiatives and identifies the common information exchanged;
- Create data-specific portions of the HRM Transition Plan;
- Create data specifications, guidance, and policy based on program and systems, along with compliance

4.2 Security

HRM data must be protected in order to comply with individual privacy laws, information assurance (IA), and operational security policy that add legal constraints to sharing across the Enterprise. With this in mind, the HRM Data Strategy Implementation Plan will be tailored to make as much of the data and services discoverable and accessible to the appropriate users while ensuring **individual privacy remains secure**, in accordance with published laws including the Privacy Act of 1974, DoD Directive 5400.11, and Health Insurance Portability and Accountability Act (HIPAA) of 1996.

IA is of paramount importance as it relates to sharing and managing HRM data. IA processes and procedures must protect and defend information and information systems and ensure their availability, integrity, authentication, confidentiality, and non-repudiation. DoD Net-Centric IA policy and strategy will enable a dynamic data-sharing environment that delivers secure information at the right time, to the right recipient, and in the right format under every circumstance. This dynamic data-sharing environment must be securely managed and protected Enterprise-wide from threats posed by unauthorized user adversaries, and from insider threats by authorized users who misuse the systems and data. Providing Enterprise-wide protection of the dynamic data-sharing environment requires a cohesive, integrated approach to IA that enhances policies, procedures, technologies, and training. To achieve DoD's IA goals, the HRM Data Strategy focuses on the following approaches:²

² Department of Defense Directive 8500.1, "Information Assurance," October 24, 2002.



- Separate information protection from infrastructure protection;
- Continue persistent monitoring and misuse detection;
- Make greater use of IA-enabled Information Technology (IT) components;
- Enhance security management;
- Manage IA throughout use, maintenance, and evolution of the net-centric environment;
- Control access to data using dynamic, highly automated, and coordinated IA policy;
- Provide end-to-end protection of data;
- Enable the secure and automated exchange of data across the Department.

Operational Security (OPSEC) is another key process in the development of the HRM Data Strategy. OPSEC focuses on identifying, controlling, and protecting data that might provide an unauthorized user or adversary with potentially exploitable information. The OUSD(P&R) will require components to incorporate DoD OPSEC requirements during implementation, including:

- Identifying critical information for posting and sharing;
- Analyzing threats to shared HRM data;
- Analyzing vulnerabilities;
- Assessing risks;
- Applying countermeasures (as required to mitigate or eliminate risk);
- Developing metrics to ensure compliance with DoD policy.

4.3 Enterprise Architecture

The HRM Data Strategy incorporates the Enterprise Architecture (EA) efforts to support the classification and categorization of data across the fourteen HRM Lines of Business (LoB). The data architecture layer removes data boundaries between traditionally stovepiped LoBs, encouraging the sharing of cross-functional information. The HRM EA acts as the operational extension of the DoD Business Enterprise Architecture (BEA), providing greater levels of granularity to support the Investment Review process, Departmental business mission priorities, Federal Inter-agency data exchanges as well as internal USD(P&R) strategic priorities. The BEA, along with the HRM operational extension, provides the architectural framework for an information infrastructure for the DoD, including business rules, requirements, data standards, system interface requirements, and the depiction of policies and procedures. This framework is



provided through a set of DoD Architecture Framework (DoDAF) products, including Operational, Technical Standard, System, and All View products. The BEA is Enterprise-level transformation architecture. Under the tiered accountability paradigm, specific solutions will be developed at the Enterprise, Component, and Program level, based upon the BEA.

The HRM data architecture is a mechanism for categorizing enterprise information and information exchanges based upon LoB or Capability views and then decomposing those content areas into data objects (e.g., entities and attributes). In identifying and defining data objects, HRM continuously examines existing data standards to create a common syntax and semantics to ensure that data are understandable. From a data perspective, EA also facilitates interoperability, enabling data to be comprehensible by providing a common understanding of the information.

4.4 Implementing the HRM Data Strategy

The HRM FDWG is responsible for producing documents that will provide more detail describing the data activities required to implement the HRM Data Strategy. The FDWG will be responsible for coordinating the following data activities across the entire DoD HRM community:

- Develop a standard methodology to tag (make discoverable) HRM data assets (with respect to security policy and personal privacy needs);
- Establish data exchange standards and standardized business rules for HRM data;
- Identify, develop, and standardize data assets to enhance cross-functional sharing among the DoD;
- Integrate data standards within the architecture and requirements of the OUSD (P&R) and coordinate with the entire Department;
- Establish policy, processes, and standards for HRM metadata management;
- Identify web-based data sharing solutions (publish and subscribe);
- Define HRM data handling procedures that comply with Departmental guidance and Federal law.

Examples of initial steps for implementing the HRM Data Strategy and realizing the DoD Net-Centric data sharing goals are outlined below.

4.4.1 Assigning HRM Data Stewards

Purpose: A key aspect of data sharing is data management in support of interoperability. It will be important to assign HRM sub-mission area data leads (stewards) for strategically managing corporate data across the Enterprise and for ensuring data availability, establishing



or regularizing data exchange standards, establishing consistent data definitions, and monitoring overall data quality and security.

Task/Actions: The HRM FDWG will request assignment of data stewards for each HRM sub-mission area: Military Health, Civilian HRM, and Military HRM. These stewards will:

- Assist in identifying and designating authoritative data sources and authoritative data owners;
- Assist in developing and approving business rules, data rules, domain values, and standards to include the DoD Discovery Metadata Standard (DDMS) as this relates to data management;
- Assist in establishing and approving single point/source of update processes (only enter data once);
- Support data requirements directed by the HRM COI;
- Work with each other to resolve data issues that cross multiple sub-mission areas.

4.4.2 Focus the work of the HRM FDWG

Purpose: The HRM FDWG will assist the HRM in articulating data initiatives necessary to support the HRM Data Strategy and DoD Directive 8320.2 requirements, ensuring net-centric data availability for the HRM and other stakeholders.

Task/Actions: The HRM FDWG shall serve as a forum to address policy, programmatic and technical coordination required to have data-sharing services available in support of the DoD. The HRM FDWG will be responsible for accomplishing the following tasks:

- Provide input to the OUSD(P&R) HRM Investment Review Board (IRB) Manager in response to DoD cross-functional certification packages that impact the HRM Data Strategy;
- Resolve data issues that develop from the work of the HRM COI and its working groups;
- Coordinate internal review and comment on all HR LoB data issues;
- Create and publish HRM systems' data exchange standards;
- Identify and resolve data management issues common to the HRM;
- Develop and manage the process to identify HRM data requirements to satisfy current and future information needs of the Department;
- Recommend business rule changes needed to support HRM requirements;
- Identify ownership and accountability (hence authoritative sources) for all data required to support the HRM and DoD;
- Develop processes, procedures and policy recommendations to assist in making HRM data visible, accessible, understandable, trusted, and interoperable.



4.4.3 Ensuring Data Security

Purpose: HRM data must be protected to comply with individual privacy laws, information assurance, and operational security policies that add legal constraints to sharing across the enterprise. The intent will be to make as much of the HRM data and services discoverable and accessible to authorized users while ensuring the data is protected.

Data sharing does not mean that any user has access to data. Currently, access to data can be controlled using already-existing portals and security mechanisms.

Task/Actions: Ensure adherence to DoD data security policy and requirements. DoD CIO-Assistant Secretary of Defense (ASD) Networks and Information Integration (NII) is currently working the Defense IA program and developing security services as part of the Net-Centric Enterprise Services (NCES) program.

4.4.4 Making Data Visible

Purpose: The key aspect of making a data asset visible is to create and associate with the asset discovery metadata, in compliance with the DDMS. To be visible, a data asset must be tagged with DDMS-compliant discovery metadata, and that discovery metadata should be posted to a catalog. Any enterprise search capability will use a search interface based on the DDMS so that all assets tagged according to the DDMS can be discovered.

The DDMS defines discovery metadata elements for resources posted to an organizational shared space. "Discovery" is the ability to locate data assets through a consistent and flexible search. The DDMS specifies a set of information fields that are to be used to describe any data or service asset that is made known to the Enterprise. It also serves as a reference for developers, architects, and engineers by laying a foundation for Discovery Services. The DDMS will be employed consistently across the Department's disciplines, domains, and data formats.

A practical example of discovery metadata is the "Properties" section of a Microsoft product, where keywords can be used in designated fields (Title, Subject, Author, Keywords, etc.) The DDMS operates on the same concept and has mandatory and optional fields including: Security, Title, Subject, Creator, and more.

Task/Actions: Identify and Post Assets

Identify, prioritize, and post the various assets within the HRM Enterprise. The process of identifying these assets will happen in a variety of forms. The FDWG members will work with their component oversight organizations to inventory the types of assets that can be stored as part of the program. Some communities may have performed a survey of data needs during system development. Using this information should lead to a determination of which assets are most desired by the known universe of consumers.



Task/Actions: Determine Tagging Method and Technologies

Currently, most content tagging mechanisms use XML. In most cases, some tool(s) will be necessary to tag the assets selected by the FDWG. Many vendors provide such capability, most with the same focus: the tool(s) examine the data content, and suggests the metadata and tags the asset according to a configurable template. This is a bottom-up approach because it starts tagging data assets that an organization already has, and is performed in an iterative manner.

Task/Actions: Tag Assets

Tagging assets with discovery metadata is one of the most critical steps in making data visible. The mandatory fields in the DDMS must be tagged, and then any HRM FDWG tagging extensions will be appended.

Once the appropriate data assets are tagged for discovery, the structural schema is posted to the DoD Metadata Registry. That activity ensures that users understand the structure and meaning of the asset and can write programs to use the asset (provided they have access to it).

Task/Actions: Maintain Catalogs

The purpose of tagging and posting the structural metadata is to assist programs and users in discovering and using the data. The actual description of what the data means is contained in a catalog. For example, when a user performs a Google search for a song, the results of the search returns a brief description of the data, using metadata for external description of an audio file specifying the artist that created it, when it was created, the length or play time, and the genre of music. When the description is offered, this does not mean the user actually has access to the asset, nor do they know exactly where it is housed.

4.4.5 Making Data Accessible

Purpose: Data is accessible when its descriptive information (the metadata in a catalog) is posted to a “shared space” and the data asset is stored so that authorized enterprise users and/or programs can access it.

Tasks/Actions: P&R IM does not physically own data. Therefore, while it will have a catalog, the physical data is owned and managed by the programs managed in the Components. P&R IM has reviewed the requirements for metadata management tools and intends to establish the standards and policy for HRM data.

4.4.6 Making Data Understandable

Purpose: Make HRM data understandable and useable, both structurally (format) and semantically (vocabulary and taxonomy) for users.



Tasks/Actions: HRM will leverage the enterprise architecture artifacts to create a common vocabulary, and work toward producing a taxonomy so that searching for and locating data will provide targeted and meaningful results. As it is an uncomplicated task to translate data codes from one format to another, specific data code standards are not anticipated. However, the content of what a data code means and how the information is functionally processed is critical to arriving at commonly understood information. The FDWG will spend considerable time coordinating the work of all involved parties in the HRM community to ensure functional consistency of the information.

4.4.7 Making Data Trusted

Purpose: Users and applications will be able to determine if the data is an authoritative source, the pedigree, and security level of the data asset. Trusted has two aspects: one, so that users trust data; secondly, that HRM trusts that the users are authorized to use and view the data.

Tasks/Actions: As the HRM FDWG works to identify data assets to share, the two primary concerns will be trust and security. In the short term, HRM will rely on existing security mechanisms such as portals, interface agreements, and other access methods. Moving forward, groups under the HRM COI may work together to develop access methods such as web services to share data across disparate systems. Additionally, whenever possible, the authoritative source of the data will be that which is tagged for access. Over time, the intent is to drive the systems in the HRM community toward making the original data collection system become the authoritative keeper of the data. These original input, authoritative sources will be the first and best choice for data tagging and sharing of information.

4.4.8 Establishing data standards and standardized Business Rules for HRM data

Purpose: Data standards in the net-centric data strategy differ from the previous 8320.1 paradigm. Data standards now focus more on making data interoperable by using metadata to tag and describe the meaning and the structure of the data. Data business rules provide the user with information about how data is used.

Tasks/Actions: The HRM FDWG will establish data standards and data business rules that enable data to be interoperable and understandable. The FDWG will establish procedures and methods for governance of the standards and rules, to allow them to be easily and quickly corrected and expanded.

5. Net-Centric Data Strategy Goals

The implementation activities listed above will help achieve the goals listed in Table 5-1 DoD Net-Centric Data Strategy Goals. The table lists the DoD Net-Centric Data Strategy Goals and gives a description of each goal. The HRM Methods to Attain the Goals outlines industry-



standard and DoD-standard methods that will be used (as determined by the HRM FDWG and HRM Data Steward) to achieve the goals.

Table 5-1 DoD Net-Centric Data Strategy Goals and HRM Methods to Attain the Goals

Net-Centric Data Strategy Goal	Description of Goal	HRM Methods to Attain the Data Strategy Goals
Visible	Users and applications can discover the existence of data assets through catalogs, registries, and other search services. All data assets (intelligence, non-intelligence, raw, and processed) are advertised or “made visible” by providing metadata, which describes the asset both structurally (format) and semantically (descriptively).	<ul style="list-style-type: none"> • Register HRM discovery metadata in the DoD Metadata Registry, using XML Schema Description (XSD) • Register semantic and structural metadata to the DoD Metadata Registry • Support discovery and reporting infrastructure for publishing HRM Enterprise Standards on the P&R IM website
Accessible	Users and applications post data to a “shared space.” Posting data implies that (1) descriptive information about the asset (metadata) is provided to a catalog that is visible to the Enterprise, and (2) the data are stored such that users and applications in the Enterprise can access it. Data assets are made available to any user or application except where limited by policy, regulation, or security.	<ul style="list-style-type: none"> • Leverage existing or create data catalogs. Use the Department of Defense Discovery Metadata Standard (DDMS) as the standard • Use the XML (Extensible Markup Language) Gallery in the DoD Metadata Registry for access to XML schemas, stylesheets, domain sets, and examples
Institutionalized	Data approaches are incorporated into Department processes and practices. The benefits of Enterprise and community data are recognized throughout the Department.	<ul style="list-style-type: none"> • Share HRM Architecture artifacts • Continuous monitoring and updating of discoverable and understandable data
Understandable	Users and applications can comprehend the data, both structurally and semantically, and readily determine how the data may be used for their specific needs.	<ul style="list-style-type: none"> • Create and share CHRIS, common vocabularies, and glossaries to improve semantic understanding of functional information needs and, by extension, the data that represents these functional information needs within the HRM community • Create and share taxonomies to improve precision discovery



Net-Centric Data Strategy Goal	Description of Goal	HRM Methods to Attain the Data Strategy Goals
Trusted	Users and applications can determine and assess the authority of the source because the pedigree, security level, and access control level of each data asset is known and available.	<ul style="list-style-type: none"> • HRM DoDAF artifacts • COI-approved standards and policy
Interoperable	Many-to-many exchanges of data occur between systems, through interfaces that are sometimes predefined or sometimes unanticipated. Metadata is available to allow mediation or translation of data between interfaces, as needed.	Use industry standards to facilitate information exchange: <ul style="list-style-type: none"> • DoDAF artifacts (such as DIV-1, DIV-2, and DIV-3) • Metadata Registry (XSD) • Data Catalogs (DDMS) • XML Gallery for XML schemas, stylesheets, domain sets, and samples • Taxonomy Gallery for discovery taxonomies (OWL syntax)

6. Conclusion

Implementing the approaches outlined in the HRM Data Strategy will provide the means by which HRM organizations can articulate their data requirements and realize the benefits of a net-centric environment. In order to achieve the goals outlined in this strategy, active participation by all HRM Components and their leadership is required. This process will be accomplished incrementally. It is understood and acknowledged that based on the current environment, progress will be slow and changes will be long term. However, the HRM community is already moving forward in their net-centric transformation. The HRM community effort must be cost effective and flexible as it moves forward and adapts to increasingly robust technical solutions. As outlined in the strategy, implementation guidance will be forthcoming as the HRM community begins executing the approaches critical to the success of the Department's transformation.



APPENDIX A: TERMS AND DEFINITIONS

Term	Definition
Capability	The ability to perform an activity to generate a desired outcome. The manner in which a business outcome is achieved further defines the capability. Enterprise Architecture provides a structured framework in which to define the capabilities and the requirements that are needed to transform the business to be capability driven and to achieve the strategic objectives of the organization.
Component	Referred to as "the DoD Components," are identified as the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities in the Department of Defense.
Data Steward	Lead for strategically managing corporate data across the Enterprise; responsible for ensuring data availability, standardizing data naming, establishing consistent data definitions, and monitoring overall data quality.
Enterprise Architecture	An integrating framework to enable tightly coupled business and IT planning. Enterprise Architecture defines the capabilities required to achieve strategic business objectives and make better-informed investment decisions.
Governance	A management and oversight process designed to ensure that HRM programs and processes, IT investments, and architecture products are consistent with HRM strategic vision.
Lines of Business	The Under Secretary of Defense for Personnel and Readiness (USD (P&R)), is the functional sponsor for Human Resources Management. HRM includes all the functional areas under the auspices of the USD (P&R) including the following Lines of Business: Recruiting and Accessions, Assignment/Placement/Transfer, Travel Management, Personnel/Pay Management, Personnel Development, Law Enforcement, Legal, Personnel Security, Position Management, Military Health Services Management, Quality of Life/MWR, Inter-Agency Support, Retirement/Separation, and Benefits Management.
Mission Statement	A declarative statement on HRM's primary purpose for existence.
Net-Centric	Exploitation of advancing technology that moves from an application-centric to a data-centric model – that is, providing users the ability to access applications and services through Web services; an information environment comprised of interoperable computing and communication components, relating to or representing the attributes of net-centricity.
Net-Centricity	A robust, globally interconnected network environment (including infrastructure, systems, processes, and people) in which data are shared timely and seamlessly among users, applications, and platforms.
Operational	An action performed in conducting the business of an enterprise. It is used to



Term	Definition
Activity	portray operational actions, not hardware or software system functions.
Operational Capabilities	An Operational Capability consists of one or more operational activities by which a desired mission outcome is achieved. It is defined by an operational user and expressed in broad operational terms in the format of an initial capabilities document or in support of or a change in doctrine, organization, training, materiel, leadership, personnel, and facilities.
Portfolio Management	An investment decision-making process that offers a comprehensive view of IT assets across the Enterprise. It provides a policy-aware, data-driven assessment framework to evaluate the portfolio's overall risk and return as well as its alignment with DoD strategy.
System Capability	A logical collection of system functions or a higher level grouping of related system functions.
System Function	A data transformation that supports the automation of activities or data elements exchange.
Transition Planning	Encompasses the processes and activities necessary to ensure a smooth delivery of a capability to the end-user. It ensures that transition activities are appropriately planned, sequenced, tracked, and reported.
Vision Statement	An overarching statement describing the direction in which HRM wants to move; an objective end state at a future point.



APPENDIX B: ACRONYMS AND ABBREVIATIONS

Acronyms & Abbreviations	Definition
ASD	Assistant Secretary of Defense
BEA	Business Enterprise Architecture
CIO	Chief Information Officer
COI	Communities of Interest
ConOps	Concept of Operations
CHRIS	Common Human Resources Information Standard
DDMS	Department of Defense Discovery Metadata Standards
DBSMC	Defense Business Systems Management Committee
DITPR	DoD Information Technology Portfolio Repository
DIV-1	Conceptual Data Model
DIV-2	Logical Data Model
DIV-3	Physical Data Model
DoD	Department of Defense
DoDAF	Department of Defense Architecture Framework
DMDC	Defense Manpower Data Center
EA	Enterprise Architecture
EA WT	Enterprise Architecture Working Team
EGB	Executive Governance Board
FDWG	Functional Data Working Group
FEA	Federal Enterprise Architecture
GIG	Global Information Grid
GCC	Governance Coordinating Council
HIPPA	Health Insurance Portability and Accountability Act
HRM	Human Resources Management
IA	Information Assurance
IRB	Investment Review Board
IT	Information Technology
LoB	Line of Business
NCES	Net-Centric Enterprise Services
NDAA	National Defense Authorization Act
NII	Networks & Information Integration
NCOW	Net-Centric Operational Warfare Model
OMB	Office of Management and Budget



Acronyms & Abbreviations	Definition
OPSEC	Operational Security
OSD	Office of the Secretary of Defense
OUSD(P&R)	Office of the Under Secretary of Defense for Personnel and Readiness
OWL	Web Ontology Language
P&R IM	Personnel and Readiness Information Management
PfM	Portfolio Management
PMA	President's Management Agenda
PPBE	Planning, Programming, Budgeting, and Execution
SME	Subject Matter Expert
SOA	Service Oriented Architecture
TP	Transition Planning
USD (P&R)	Under Secretary of Defense for Personnel and Readiness
WSDL	Web Service Description Language
XML	Extensible Markup Language
XSD	XML Schema Description



APPENDIX C: REFERENCES

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