Final
DoD IEA v2.0: AV-1 Overview and Summary Information

Department of Defense Information Enterprise Architecture, v2.0
Overview and Summary Information (AV-1)
June 30, 2012

The DoD Information Enterprise Architecture (IEA) addresses the concepts, strategies, goals and objectives related to the Information Enterprise (IE) and provides a common, enterprise foundation to guide and inform IT investment decisions in achieving the IE vision. It describes the operational context and vision for the IE; the capabilities the IE provides to enable DoD operations; the activities, rules and services involved in providing the capabilities; and compliance criteria. The DoD IEA enables alignment of DoD architectures with the IE vision, drives enterprise solutions, and promotes consistency throughout the DoD IE.

The DoD IEA v2.0 is a continuation of the effort within the DoD CIO to describe the evolving IE concepts and strategic positions. The initial version (v1.0) identified five areas called priority areas to focus near-term decision making and established a baseline framework of principles and rules to guide investments in these areas. Later updates (v1.1 and v1.2) described how to apply the principles, rules, and associated activities; criteria for DoD IEA compliance; and provided DoD Enterprise Architecture (EA) compliance requirements.

In continuing the evolution, the DoD IEA v2.0 incorporates content from the Global Information Grid (GIG) 2.0 Operational Reference Architecture (ORA); clarifies the IE vision; introduces required IE capabilities; describes the activities, rules, services and standards involved in providing these capabilities; and continues to institutionalize this content. The capabilities described in the DoD IEA v2.0 align closely with the Net-Centric Joint Capability Area (JCA). Incorporation of the GIG 2.0 ORA results in a more comprehensive activity decomposition and an operational context that describes the operational concepts, characteristics, and requirements that drive the future IE. Although the GIG 2.0 ORA is warfighter focused, it also addresses the day-to-day operations of the Department that are also relevant to business and intelligence operations. A document navigation support tool referred to as the "Document Framework" is also being developed to accompany the DoD IEA v2.0. The Document Framework consolidates and organizes compliance and guidance documents by document type, capability type, and other categories to support compliance understanding and analysis.

Future increments of the DoD IEA will continue to enhance and refine content, as necessary, to describe changing enterprise strategies and priorities; update relationships, application and use; and to clarify compliance criteria.

Architectural Description Identification	
Name	Department of Defense Information Enterprise Architecture (DoD IEA), v2.0
Architect	Department of Defense (DoD) Chief information Officer (CIO)
Developed By	DoD CIO, Architecture and Infrastructure (A&I) Directorate in partnership with the DoD Components.
Assumptions and Constraints	**Assumptions:** • The DoD Information Enterprise Architecture will continue to evolve until the capabilities required to achieve the IE vision are sufficiently described to fully support IE investment decision making and solutions developments. • The concept of convergence, the merging of communications, computing, and other infrastructure elements, will dominate information technology development to provide seamless, universal connectivity, bringing together all information sources and services. • Enterprise-wide reference architectures (RA) that describe any aspect of the IE will be considered as part of the DoD IEA. • Emerging warfighting concepts will continue to stress the need for the total integration and interoperability of the Services' communications and information systems with an emphasis on Net-Centric Operations and Warfare. • The Joint Staff J8 will continue to maintain and evolve GIG operational requirements and gaps. Future versions of the DoD IEA will account for these operational requirements and gaps. • Although the GIG 2.0 ORA is warfighter focused, it also addresses common IT requirements that are also applicable to Business and Intelligence operations. • Future versions of the DoD IEA will incorporate unique operational requirements for Business and Intelligence operations. **Constraints:**

	• Describe operational context and operational IT requirements based on the incorporation of the GIG 2.0 ORA into the DoD IEA. • Use DISA, Joint Staff, Mission Areas, and other stakeholder organizations to develop and vet the DoD IEA v2.0. • The DoD IEA is part of the larger DoD Enterprise Architecture (EA) and should be developed as a cohesive and coherent part of the EA. • Use the following general timeline and milestones in developing the DoD IEA v2.0: - 16 September 2011: Initial Draft (Partial Document) - 9 March 2012: Final Draft - Mar – May 2012: Formal Review and Comment - May-Jun 2012: Comment Adjudication - July 2012: DoD IEA v2.0 Approval
Approval Authority	DoD CIO
Date Completed	30 July 2012
LOE and Costs	Level of effort, projected and actual costs to develop the DoD IEA may be requested from the DoD CIO, A&I Directorate.
Scope: Architecture Artifacts	
DoDAF Views	Overview and Summary Information (AV-1) – Executive-level summary of the DoD IEA that clarifies the purpose, content, viewpoint, and other relevant information about the architecture. Integrated Dictionary (AV-2) – An architectural data repository with definitions of all terms used throughout the DoD IEA architectural data and presentations. DoD IE Vision (CV-1) – Describes the end state vision for the IE and provides a strategic context for IE capabilities and a high-level scope for the DoD IEA. Capability Taxonomy (CV-2) – Describes the hierarchy of capabilities for the IE. Capability to Operational Activities Mapping (CV-6) – Describes the mapping between the capabilities and the operational activities. Capability to Services Mapping (CV-7) – Describes the mapping between the capabilities and the services. High-Level Operational Concept Graphic (OV-1) – A high-level graphical and textual description of the objective IE operational concept. Operational Activity Decomposition Tree (OV-5a) - Decomposes and defines the activities involved in developing, managing, and using the objective IE. Operational Rules Model (OV-6a) – Describes the business rules that constrain IE operations. Services Context Description (SvcV-1) – Identifies the services and service items needed to provide the IE capabilities. Services Functionality Description (SvcV-4) – Describes the functions performed by the services needed to provide the IE capabilities. Standards Profile (StdV-1) – A listing of standards that apply to the IE solution elements. Standards Forecast (StdV-2) – Describes emerging standards and potential impact on IE solution elements.
Other Architecture Products	Document Framework - A document navigation support tool that consolidates and organizes compliance and guidance documents by document type, capability type, and other categories to support compliance understanding and analysis. DoD IEA v2.0 Description Document – A document that provides an Executive Summary, Volume 1 for managers, and a Volume 2 for architects and others that require granular detail and descriptions. Volume 2 provides comprehensive, detailed descriptions of the architecture views, interrelationships,

	and analysis in a logical and integrated manner.
Time Frames Addressed	The DoD IEA v2.0 addresses the "To Be" IE. Reference Architectures developed as part of the DoD IEA will identify specific timeframes they support.
Organizations Involved	• **Developed by**: DoD CIO, Architecture and Infrastructure Directorate **Impacted organizations:** • DoD CIO, Strategic Planning and Investment Management Directorate • Joint Staff • DoD Components

Purpose and Perspective	
Purpose	The purpose of the DoD IEA v2.0 is to further expand, enhance, and evolve the description of the future IE and support DoD IT investment decisions by incorporating relevant content from the GIG 2.0 ORA; describing the IE vision and the capabilities needed to achieve the vision; describing the activities, rules, services, and standards for providing the IE capabilities; and refining the compliance criteria for the DoD IEA. It also provides an accompanying document navigation support tool referred to as the "Document Framework". The DoD IEA v2.0 evolves the description of the future IE by providing the operational context for the objective IE and describing the IE vision in terms of the capabilities, activities, rules, services and standards needed to achieve the vision. This is an important step in the evolution of the DoD IEA because it incorporates the operational requirements needed to drive the development of the future IE; provides a comprehensive IE description to guide and constrain IE investment decisions and solutions development; and provides compliance criteria to measure and evaluate progress in achieving the IE vision.
Questions the Architecture Description will Answer	• What is the end state vision for the IE? • What are the metrics for measuring progress in achieving the end state IE? • What end user capabilities are provided by the IE? • What capabilities are needed to secure and defend, operate, manage, and govern the IE? • What activities, rules, functions, and services are associated with each capability? • What are the compliance requirements for the DoD IEA v2.0? • How does information in the DoD IEA v2.0 assist stakeholders from an investment planning and implementation perspective? • How are the DoD Mission Areas and DoD Components associated with the DoD IE? • How does DoD manage and operate the IE to ensure it is available and ready for use? • How does DoD ensure the communications/computing infrastructure is adequate for supporting global net-centric operations? • How does DoD ensure that information resources are secure, trusted, and accessible across the entire DoD network environment? • How does DoD enable the creation and deployment of data, information and services in a net-centric environment?
Architecture Perspective	The DoD IEA perspective is that of the DoD CIO to guide the IE developer, operator, manager, and user of the IE. It serves as a tool to communicate leadership's vision of the future IE; guide IT investment decisions; and guide and constrain the development of solutions to achieve the IE vision.

Context	
Mission of the IE	The mission of the IE is to create an information advantage for our people and mission partners by providing: • A rich information sharing environment in which data and services are visible, accessible, understandable, and trusted across the enterprise.

	• An available and protected network infrastructure (the GIG) that enables responsive information-centric operations using dynamic and interoperable communications and computing capabilities. The DoD IEA v2.0 is built from an operations vantage point and extends from operations back to the business end of DoD. It supports the development of an IE that breaks down barriers to information sharing, interoperability, and supportability across the Department. This new IE vision takes existing infrastructure resources and builds a trusted environment that is common across the Department and enables joint operations across the full range of DoD operations. The architecture describes what needs to be created to ensure that this infrastructure encompasses all Components, forward operations, interagency and coalition support. The DoD IEA v2.0 supports the Services Title X authorities to man, train, and equip their portions of the infrastructure but will establish trusts between domains and a common set of rules that accept the same levels of risk and allow for commonality across the Department.
Goals for the DoD IEA	The DoD IEA 2.0 provides a means to ensure that all applicable DoD programs, regardless of Component or portfolio, align with the DoD IE vision and enable agile, collaborative net-centric information sharing. The goals of the DoD IEA v2.0 are to: • Enable Warfighting, Business, and Defense Intelligence domain operations. • Provide a traceable line-of-sight from strategic guidance to solution architectures. In achieving these goals, it is necessary to describe and institutionalize the capabilities and services required to meet the operational requirements described in the five following Core Characteristics from the GIG 2.0 ORA. These Core Characteristics are: **- Global Authentication, Access Control, and Directory Services**. Any authorized user will have access to the information needed from any place, at any time, utilizing any computing capability connected to the network. **- Information Services "From the Edge".** Operators will have the information needed to make decisions. **- Joint Infrastructure.** Service, coalition, combined and interagency networks will be seamless, and ready for use by the warfighter without further development of integration challenges. **- Common Policies and Standards**. Operational force requirements will be the foundation of DOD IEA V2.0. In turn, we must utilize the DoD IEA v2.0 to formulate operational strategies, business processes, organizational structures, policies and cultural change required to develop, implement and support that environment. **- Unity of Command**. Effective C2 relationships will be developed that support Unity of Command.
Rules Followed	• Develop the DoD IEA v2.0 using the DoD Architecture Framework (DoDAF) 2.0. • The development approach assumes that a minimal, universal, common set of implementation specifications should be adhered to in order to drive net-centric transformation. • Develop and decompose architecture products only to the level of detail required to guide investment decision-making at the DoD and Component CIO level and solutions development. • Represent data and services as independent from systems and applications and show how they are made visible, accessible, understandable, trusted, and governed across the Enterprise. • Document all critical rules, constraints and best practices necessary for accelerating the implementation of net-centric operations. These are sufficiently critical and "Enterprise" in nature that waivers should be granted only in exceptional cases. • Establish enabling guidelines and standards.
Linkages to Other Architectures	The DoD IEA v2.0 is part of the DoD Enterprise Architecture (EA). As such, it is aligned with other DoD enterprise-level strategic guidance (Directives, Instructions, Strategies, Operational Architectures, etc.). The DoD IEA will be registered in DARS at https://dars1.army.mil/IER2/ and posted on the DoD CIO open website at http://dodcio.defense.gov/sites/diea/ .
Tools and File Formats Used	
IBM System Architect, Visio, MS Word, MS Excel, MS Powerpoint, and Adobe Acrobat	