



DEPARTMENT OF THE NAVY
CHIEF INFORMATION OFFICER
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01 October 2010

MEMORANDUM FOR DISTRIBUTION

Subj: RELEASE OF DEPARTMENT OF THE NAVY ENTERPRISE ARCHITECTURE
APPLICABILITY AND USAGE GUIDE

Ref: (a) DON CIO memorandum, Release of Department of the Navy Enterprise Architecture
Version 2.0.000, of 30 July 2010

Encl: (1) Department of the Navy Enterprise Architecture v2.0.000 Applicability and Usage
Guide

The purpose of this memorandum is to announce the release of enclosure (1), the Department of the Navy Enterprise Architecture (DON EA) v2.0.000 Applicability and Usage Guide. The DON EA v2.0.000 was released on 30 July 2010, via reference (a). Enclosure (1) provides detailed explanation, specific applicability, and compliance requirements for each DON EA v2.0.000 artifact.

Authoritative and current information about DON EA policy, procedures, and content can be found at: <https://www.intelink.gov/wiki/DONEA>. The DON CIO point of contact for the DON EA is the Director Enterprise Architecture & Emerging Technology, Mr. Michael Jacobs, michael.b.jacobs@navy.mil (703) 602-6847.

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APPLICABILITY AND USAGE GUIDE

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Enterprise Architecture
(DON EA) v2.0.000
Applicability and Usage Guide
EA_USAGE-U-1.0.000

01 OCTOBER 2010



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References

- a) DON CIO Memo, Department of the Navy Enterprise Architecture Version 2.0.000, 30 July 2010
- b) DON CIO Memo, Department of the Navy Information Technology Policy Guidance for Fiscal Year 2011, 25 August 2010
- c) SECNAVINST 5000.2D, Implementation and Operation of Defense Acquisition System and Joint Capabilities Integration and Development System, 16 October 2008
- d) DON CIO Naval Message 262302Z SEP 09, Department of the Navy NIPRNET Public Key Enablement Waiver Request Process
- e) DON CIO Memo, Department of the Navy Enterprise Architecture Version 1.0.000, 31 July 2009
- f) CJCSI 6212.01E, Interoperability and Supportability of Information Technology and National Security Systems, 15 December 2008
- g) DoD Instruction 5000.2C, Operation of Defense Acquisition System, 8 December 2008
- h) DON CIO Memo, DON DoD Architecture Framework V2.0 Implementation Guidance, 22 March 2010

1.0 Purpose and Scope

This document provides a detailed explanation of the content contained in Department of the Navy (DON) Enterprise Architecture (EA) v2.0.000, which was released 30 July 2010 (reference (a)). It also provides specific applicability and compliance requirements for each individual artifact contained in DON EA v2.0.000. DON EA compliance is mandated as part of three existing processes:

- The DON Information Management/Information Technology (IM/IT) Investment and Annual Review process (reference (b))
- The Title 40/Clinger-Cohen Act (Title 40/CCA) Confirmation process (reference (c))
- Public Key Enablement (PKE) Waiver Request process (reference (d))

In accordance with reference (a), enforcement of compliance with DON EA v2.0.000 will commence 01 Oct 2010.

The intended audience for this document is:

- Program Offices and Information Technology, including National Security System (IT/NSS), owners
- Navy and Marine Corps DON Deputy Chief Information Officers (DDCIO) Functional Area Managers (FAM), Echelon II CIOs, Operational Designated Approval Authorities (ODAA), and other organizations that are involved in assessing DON EA compliance

2.0 Background

DON EA v1.0.000 (reference (e)) was released on 31 July 2009 and contained the authoritative DON EA Framework and a limited set of DON EA artifacts. These artifacts included a number of Laws, Regulations, Policies, and Guidance (LRPGs) “rules,” which were enforced as part of the DON EA compliance and review process. Updated versions of the DON EA, including DON EA v2.0.000, will continue to address two primary areas of focus:

1. Guide the Department’s IT/NSS investments towards achieving stated Departmental goals and objectives
2. Assist DON capability developers and Program Managers (PM) in the development of “solution architectures” – as mandated by the Joint Capabilities Integration and Development System (JCIDS) (reference (f)) and Defense Acquisition System (DAS) processes (reference (g))

Updates to DON EA compliance requirements shall be implemented on 01 October of each year, following formal releases of the DON EA each February and July.

Authoritative and current information about DON EA artifacts, policy, and procedures can be found at: <https://www.intelink.gov/wiki/DONEA>.

3.0 Feedback

DON CIO is continuously seeking to make improvements to DON EA content, processes, and procedures. DON EA stakeholders and users are encouraged to provide feedback and comments at: https://www.intelink.gov/wiki/Department_of_the_Navy_Enterprise_Architecture_Feedback.

4.0 DON EA Updates and Announcements

Official DON EA releases and updates will be promulgated through official naval correspondence. Informal announcements about DON EA updates and changes will be made via web 2.0 tools such as the Intelink eCHIRP micro-blogging tool. DON EA users may subscribe at: <https://www.intelink.gov/chirp/group/donea>.

5.0 DON EA Usage Overview

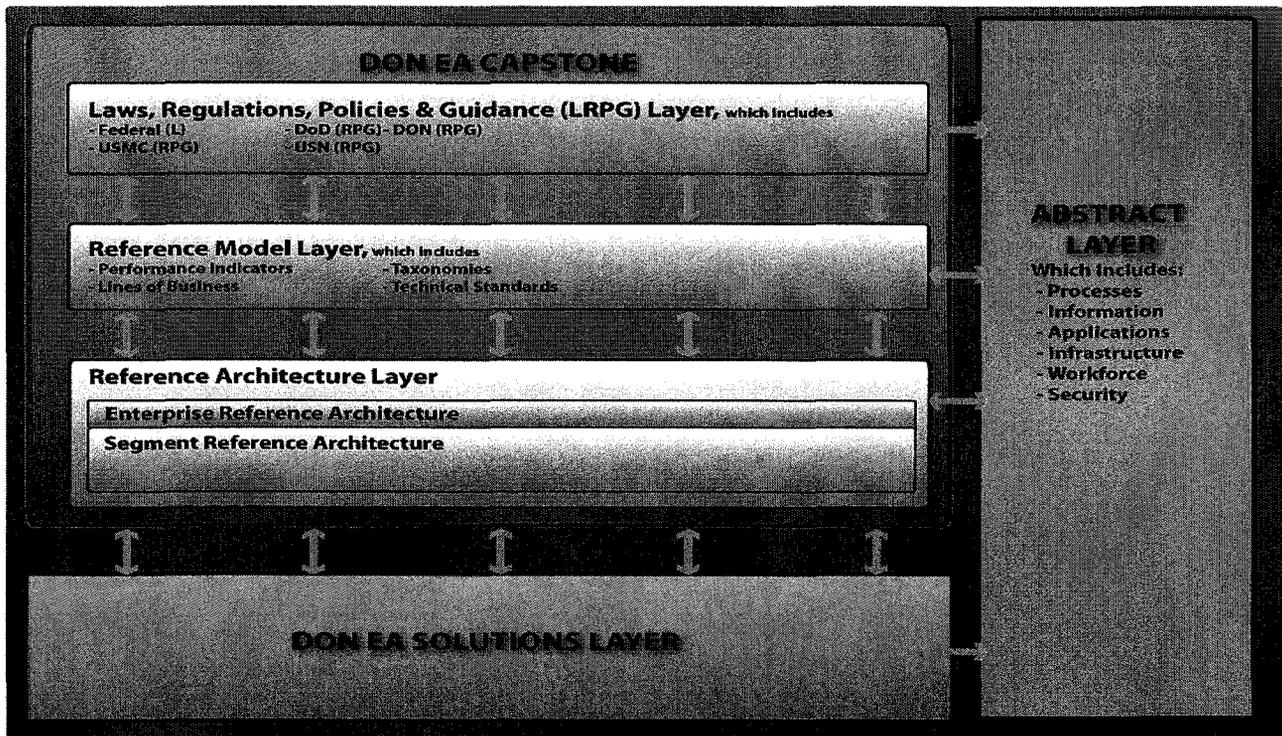
DON EA v2.0.000 contains artifacts comprised of L RPGs, reference model components, and several reusable DoDAF 1.5/2.0 architectural views. Current DON DoDAF guidance (reference (h)) states:

1. Information contained in all DON architectures shall be captured in a manner that is consistent with the DoDAF v2.0 Meta Model (DM2).
2. Development and submission of required JCIDs architecture representations for Post-milestone B programs may be done using either DoDAF v1.5 or DoDAF v2.0 representations, but the underlying data must be “captured in a manner that is consistent with the DoDAF v2.0.” However, Pre-milestone B programs that have not yet developed solution/program architecture, or programs undergoing a technology refresh, shall develop DoDAF v2.0 representations.
3. DoDAF v2.0 Fit-for-Purpose Views may be used within the DON under the following conditions:
 - a. DON organizations that see a need to develop DoDAF v2.0 Fit-for-Purpose Views may use these views for internal purposes only.
 - b. DON organizations that have developed DoDAF v2.0 Fit-for-Purpose Views, which they believe have potential value for use across the Department, may submit these views for formal review, approval, and incorporation into the DON EA.

5.1 DON EA Framework

The DON EA framework provides the organizing construct for all DON EA content, as is described in reference (a). The DON EA Framework is an overarching construct which also includes the DON Business Enterprise Architecture (DON EA) and is aligned to the Joint Staff Issued Joint Capability Areas (JCAs). The DON EA Framework is comprised of a DON EA Capstone, a DON EA Solution Layer, and an Abstract Layer. The Capstone Layer provides the reference architectures that describe the collection of authoritative reference information in the areas of strategy, policy, process, information, data, and technology that guide the development of specific DON solutions. The DON EA solutions layer contains specific proposed solutions originating from the requirements and acquisition processes. The relationship between the DON EA reference architectures and solutions architectures provides a strategic assessment capability to support DON decision-makers. The Abstract layer will provide decision makers the necessary information about how proposed investments align to the standards that guide all solutions across the DON. Figure 1 provides a graphical representation of the DON EA Framework.

Figure 1: DON EA Framework



EA_FRAME-U-1.1.000

5.2 Program Compliance

DON EA compliance is required for all Acquisition Category (ACAT) and Non-ACAT IT/NSS programs, systems, investments, and initiatives. Specific compliance requirements,

documentation to be provided and required actions associated with each DON EA artifact will differ depending on the individual program, system, investment, initiative size/type and point in the acquisition lifecycle.

5.2.1 Artifact Guidance Definitions

The following table provides definitions for the categories of DON EA guidance used throughout the remainder of this document.

DON EA Guidance Definitions	
Artifact Name	Authoritative name of the DON EA Artifact
Artifact CI Number	DON EA artifact configuration item number
Artifact Definition	DON EA artifact purpose
Artifact Introduction	When an artifact was introduced into the DON EA
Artifact Compliance Commences	Start date of when compliance with each DON EA artifact becomes required.
Artifact Type	<p>DON EA artifacts are divided into two types:</p> <ul style="list-style-type: none"> • <u>Mandatory</u>: Compliance with these DON EA artifacts is required. • <u>Informational</u>: These artifacts provide foundational elements upon which the DON EA is built.
Artifact Effect	<p>There are two categories of DON EA artifact effect:</p> <ul style="list-style-type: none"> • Solution Architectures - These artifacts require that ACAT programs document their solution architectures in a particular way and/or that elements of the solution architecture make use of DON EA artifacts as their starting point. • System Design/Functionality- These artifacts affect the actual solution/design and capabilities of the program, system, investment, or initiative.
DON EA Usage Description	Description of the specific DON EA Artifact to be used within the DON EA framework.
Compliance Criteria	Each DON EA artifact provides quantitative measures to assess compliance.
Required Actions Based on Lifecycle	DON EA artifact guidance is tailored to different phases of the JCIDS lifecycle (reference (f)).

Documentation Requirements	Verification of assertions of compliance with some DON EA artifacts requires that the program, system, investment, or initiative provide documentation to validate the assertion. The preferred mechanism for providing required documentation is to identify an accessible URL, where the documentation is located. The alternate mechanism is to upload the documentation to the “Doc” tab of the DON variant of the DoD Information Technology Portfolio Repository (DITPR-DON).
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6.0 DON EA v2.0.000 Usage Guidance

This section provides details for compliance with individual DON EA artifacts.

6.1 DON EA Laws, Regulations, Policies, and Guidance (LRPG) Requirements

LRPGs are mandatory DON “building codes,” which are a critical component of the DON EA and are based on existing statute, as well as DoD and DON policy and guidance.

6.1.01 Internet Protocol IPv6

Artifact Name: Internet Protocol IPv6
Artifact CI Number: RUL_IPV6-U-1.1.000
Artifact Definition: DON IT/NSS assets being developed, procured, or acquired shall be IPv6 capable (while retaining compatibility with IPv4).
Artifact Introduction: DON EA v1.0.000 (Minor update as part of DON EA v2.0.000)
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality
DON EA Usage Description:

The rule is intended to ensure compliance with Federal, DoD, and DON policy on implementation of IPv6.
<p>Compliance Criteria:</p> <ul style="list-style-type: none"> • Compliant – The DON IT/NSS asset being developed, procured, or acquired is IPv6 capable. • Non-Compliant - The DON IT/NSS asset being developed, procured, or acquired is not IPv6 capable.
<p>Required Actions Based on Lifecycle:</p> <p>Implementation of IPv6 capabilities is required at all phases of the lifecycle. If the IT/NSS asset is post deployment, then IPv6 capabilities can be incorporated via technology refresh, but a DON EA waiver will still be required until such time as this capability is incorporated into the design/system.</p>
<p>Documentation Requirements: None.</p>

6.1.02 Management of Records in a DON IM/IT System

<p>Artifact Name: Management of Records in a DON IM/IT System</p>
<p>Artifact CI Number: RUL_MREC-U-1.2.000</p>
<p>Artifact Definition: 36 Code Federal Regulations 1236 and OMB Circular A-130 require agencies to integrate records management functions into the design, development, enhancement, and implementation of electronic information systems (EIS). For DON electronic information systems that contain data and information that meet the definition of a Federal Record (See SECNAVINST 5210.8D), the system must incorporate DON records management requirements and functionality.</p>
<p>Artifact Introduction:</p> <p>DON EA v1.0.000</p> <p>(Minor update as part of DON EA v2.0.000)</p>
<p>Artifact Compliance Commences: 01 Oct 2009</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: System Design/Functionality</p>

<p>DON EA Usage Description:</p> <p>This rule exists because of 36 CFR 1236. This rule aligns DON investments for electronic information systems with required Federal, DoD, and DON policies for the retention of data and information meeting the definition of a Federal Record.</p>
<p>Compliance Criteria:</p> <p>Compliant if all RM requirements and functionality are incorporated into design, development, and implementation of the information system.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.03 Acquisition of a DON Records Management Application

<p>Artifact Name: Acquisition of a DON Records Management Application</p>
<p>Artifact CI Number: RUL_RMA-U-1.2.000</p>
<p>Artifact Definition: The DON command or organization intending to acquire a Records Management Application (RMA) or a system/application that is RMA-like shall ensure it is certified to be compliant with DoD 5015.02-STD, Electronic Records Management Software Applications Design Criteria Standard, April 25, 2007</p>
<p>Artifact Introduction:</p> <p>DON EA v1.0.000</p> <p>(Minor update as part of DON EA v2.0.000)</p>
<p>Artifact Compliance Commences: 01 Oct 2009</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: System Design/Functionality</p>
<p>DON EA Usage Description:</p> <p>This rule ensures DON compliance with DoD and Federal standards for Records</p>

<p>Management Applications (RMA). A Records Management Application is the software used by an organization to manage its records. An RMA's primary management functions are categorizing and locating records and identifying records that are in its repository.</p>
<p>Compliance Criteria:</p> <p>The RMA is certified in accordance with DoD 5015.02-STD, Electronic Records Management Software Applications Design Criteria Standard of April 25, 2007.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.04 DON Use of Electromagnetic Spectrum in DON IM/IT Investments

<p>Artifact Name: DON Use of Electromagnetic Spectrum in DON IM/IT Investments</p>
<p>Artifact CI Number: RUL_EMS-U-1.1.000</p>
<p>Artifact Definition: The DON command or organization intending to acquire a spectrum dependent system or equipment shall complete both a Spectrum Supportability Risk Assessment (SSRA) and a DD-1494 form in order to adequately ensure that spectrum supportability requirements have been addressed.</p>
<p>Artifact Introduction:</p> <p>DON EA v1.0.000</p> <p>(Minor update as part of DON EA v2.0.000)</p>
<p>Artifact Compliance Commences: 01 Oct 2009</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: System Design/Functionality</p>
<p>DON EA Usage Description: This rule aligns DON investments with the policy and management of electromagnetic spectrum with the Department of Defense (DoD). Enabling access to the electromagnetic spectrum (spectrum) for the U.S. Navy and U.S.</p>

Marine Corps is a complex, perpetual challenge requiring coordinated actions throughout the DON. The proliferation of wireless technologies continues to dramatically reduce the available spectrum to support Navy and Marine Corps forces globally. This trend is particularly acute for systems that operate in the radio frequency portion of the electromagnetic spectrum. The DON recognizes that the spectrum landscape has changed dramatically within the last few decades not only from the increased commercial use of spectrum, but also from the requirement to conduct coalition and domestic support operations. The Department recognizes that spectrum supportability and spectrum access are key enablers to successful Navy and Marine Corps net-centric operations.

Compliance Criteria:

1. **Spectrum Supportability Risk Assessment (SSRA):** The organization intending to acquire a spectrum dependent system or equipment shall conduct a Spectrum Supportability Risk Assessment (SSRA) that identifies spectrum-related risks regarding sufficient spectrum to support the operation of the equipment.
2. **Application for Equipment Frequency Allocation:** The organization intending to acquire a spectrum dependent system or equipment shall complete a DD-1494 form that documents the technical performance data of the system/equipment. DON definition of Spectrum-dependant (S-D) equipment and systems: S-D equipment and systems are defined as any conceptual, experimental, developmental or operational transmitter, receiver or device (unclassified or classified) that utilizes any portion or part of the electromagnetic spectrum. S-D equipment and systems include, but are not limited to, transmitters, receivers, C2 systems and platforms (including satellite communications (SATCOM)), ISR systems and platforms (either manned or unmanned), sensors, beacons, navigational aids (NAVAIDS), radar, lasers, munitions and weapons systems. There is no distinction as to the method of procurement to include program and non-program of record; Government developed or Government-off-the shelf (GOTS); commercial-off-the-shelf (COTS); commercial lease; or operational and maintenance (O&M) or unit funded.

Required Actions Based on Lifecycle:

Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.

Documentation Requirements: None

6.1.05 DON Utilization of DoD Mandated Enterprise Services

Artifact Name: DON Utilization of DoD Mandated Enterprise Services
Artifact CI Number: RUL_DODES-U-1.1.000
Artifact Definition: The DoD provided Enterprise Services of Collaboration, Content Discovery, and Content Delivery are mandated for use across DoD.
Artifact Introduction: DON EA v1.0.000 (Minor update as part of DON EA v2.0.000)
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality
DON EA Usage Description: The use of common information technology capabilities and services across the DoD can improve warfighting effectiveness, interoperability, and reduce cost.
Compliance Criteria: Compliance is achieved by NOT duplicating, or planning to duplicate, capabilities comparable to those provided by the designated DoD Enterprise Services.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.
Documentation Requirements: None

6.1.06 DON Implementation of Public Key Infrastructure (PKI) and Public Key Enabling (PKE)

Artifact Name: DON Implementation of Public Key Infrastructure (PKI) and Public Key Enabling (PKE)
Artifact CI Number: RUL_PKIE-U-1.1.000

<p>Artifact Definition: Systems, including networks, e-mail, and Web servers, must be designed to use PKI certificates issued by DoD and DoD-Approved external PKI authorities, as appropriate, to support authentication, authorization, confidentiality, data integrity, and non-repudiation.</p>
<p>Artifact Introduction:</p> <p>DON EA v1.0.000</p> <p>(Minor update as part of DON EA v1.1.000)</p>
<p>Artifact Compliance Commences: 01 Oct 2009</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: System Design/Functionality.</p>
<p>DON EA Usage Description: This rule ensures compliance with the applicable DoD and DON PKI and Public Key Enabling policies identified in the references section of the DON EA artifact. Compliance with these policies helps to provide appropriate levels of confidentiality, integrity, authentication, non-repudiation, and availability; defend the perimeters of enclaves; provide appropriate degrees of protection to all enclaves and computing environments; and make appropriate use of supporting Information Assurance (IA) infrastructures, to include robust key management and incident detection and response.</p>
<p>Compliance Criteria:</p> <p>DON unclassified Information System, including networks, e-mail, and web servers are Public Key Enabled (PKE).</p> <p>For SIPRNET: DoD is currently in the process of implementing the SIPRNET PKI, to include hardware tokens for user authentication to networks and web sites. DON systems must make provisions to be ready to comply with SIPRNET PKI requirements once the foundational infrastructure has been put in place.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements:</p> <ul style="list-style-type: none"> • Flag/SES signed PKE Waiver Request Memo • POA&M for becoming compliant with PKE requirements

6.1.07 DON Mission Assurance Category (MAC) Selection

Artifact Name: DON Mission Assurance Category (MAC) Selection
Artifact CI Number: RUL_MAC-U-1.0.00
Artifact Definition: All DON IM/IT systems must identify the appropriate Mission Assurance Category (MAC).
Artifact Introduction: DON EA v1.0.000
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality
DON EA Usage Description: The MAC determines the IA control to be exercised annually in accordance with DoDI 8500.2 (IA Implementation), reflective of the importance of the system to the warfighter, and the stringency of protective measures required.
Compliance Criteria: The DON IM/IT system has been correctly assigned a MAC in DITPR-DON.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.
Documentation Requirements: None

6.1.08 DON IM/IT Investments Selection of Mission Criticality

Artifact Name: DON IM/IT Investments Selection of Mission Criticality
Artifact CI Number: RUL_MC-U-1.0.001
Artifact Definition: All DON IM/IT systems must identify the appropriate Mission Criticality Type.

Artifact Introduction: DON EA v1.0.000
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality
<p>DON EA Usage Description:</p> <p>Mission criticality reflects the effect of the system upon warfighter operations, or the importance of the system to continued operations.</p>
<p>Compliance Criteria:</p> <p>Usage Metrics:</p> <p>The DON IM/IT system has correctly identified the appropriate Mission Criticality in DITPR-DON.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
Documentation Requirements: None

6.1.09 DON Certification and Accreditation (C&A) of Systems and Networks

Artifact Name: DON Certification and Accreditation (C&A) of Systems and Networks
Artifact CI Number: RUL_CA-U-1.0.000
Artifact Definition: C&A is required for all DON information systems and networks that connect to the Global Information Grid (GIG).
Artifact Introduction: DON EA v1.0.000
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality

<p>DON EA Usage Description:</p> <p>Certification and Accreditation (C&A) is a process used to assess the risks of system operation upon DoD networks.</p>
<p>Compliance Criteria:</p> <p>The DON information system or network has an ATO/IATO, current date of C&A, and valid C&A expiration date.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.10 DON Encryption of Data at Rest (DAR)

<p>Artifact Name: DON Encryption of Data at Rest (DAR)</p>
<p>Artifact CI Number: RUL_DAR-U-1.0.000</p>
<p>Artifact Definition: All unclassified data at rest (DAR) that has not been approved for public release and is stored on mobile computer devices shall be treated as sensitive data and encrypted using commercially available encryption technology.</p>
<p>Artifact Introduction: DON EA v1.0.000</p>
<p>Artifact Compliance Commences: 01 Oct 2009</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: System Design/Functionality</p>
<p>DON EA Usage Description:</p> <p>Protection of sensitive data that should not become available in the public domain, such as Personally Identifiable Information (PII), information for official use only (FOUO), or any of the other categories of sensitive information, soon to be marked as Critical Unclassified Information (CUI).</p>
<p>Compliance Criteria:</p> <p>DAR stored in mobile computing devices has been treated as sensitive data and encrypted</p>

using commercially available encryption technology.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.
Documentation Requirements: None

6.1.11 COTS Software Fielding within DON

Artifact Name: COTS Software Fielding within DON
Artifact CI Number: RUL_COTS-U1.0.000
Artifact Definition: In accordance with SECNAVINST 5230.15, all COTS Software in use across the DON shall be supported throughout its fielded lifecycle.
Artifact Introduction: DON EA v1.0.000
Artifact Compliance Commences: 01 Oct 2009
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: System Design/Functionality
DON EA Usage Description: Unsupported COTS software poses unacceptable operational and security vulnerability risks to the IT/NSS assets of the DON.
Compliance Criteria: COTS Software is supported throughout its fielded lifecycle.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.
Documentation Requirements: System Master Record (MR) ID#. Please note, the MR must be fully populated with applicable COTS software versions.

6.1.12 Navy Conditioned Based Maintenance

Artifact Name: Navy Conditioned Based Maintenance
Artifact CI Number: RUL_NCBM-U-1.0.000
Artifact Definition: DoD and DON policy dictate that CBM+ shall be used in maintenance programs and in Integrated Logistics Support (ILS) program elements for systems and equipment under acquisition. DON EA policy requires that CBM+ usage shall be planned to exploit common network and computing infrastructures where possible and use open architecture and consensual standards based methods.
Artifact Introduction: DON EA v2.0.000
Artifact Compliance Commences: 01 Oct 2010
Artifact Type: Mandatory for all NSS ACAT Programs
Artifact Effect: System Design/Functionality
DON EA Usage Description: CBM+ shall be used to determine maintenance decisions and reduce scheduled maintenance and manpower requirements, while reducing O&S costs and ensuring that appropriate maintenance is performed. CBM+ shall be designed to exploit shared network infrastructure and open consensual standards to avoid cost of unique infrastructure and proprietary systems.
Compliance Criteria: 1. Weapon systems enabled with CBM? (Yes or No, and document): Pre-Milestone A, documentation of CBD strategies in the following JCIDS documents: ICD and ISP Pre-Milestone B, documentation of CBD strategies in the following JCIDS documents: CDD and ISP Pre-Milestone C, documentation of CBD strategies in the following JCIDS documents: CPD and ISP 2. CBM+ enabling network infrastructure support verified (Yes or No, and document): For ACAT programs associated with naval ships documentation showing

transport on CANES, ISNS, DoD GIG

For ACAT programs associated with submarines documentation showing transport on CANES, ISNS, DoD GIG

For ACAT programs associated with aircraft systems documentation showing transport on CANES, ISNS, DoD GIG

For ACAT programs associated with equipment and infrastructure documentation showing transport on NMCI/NGEN

3. CBM+ content incorporated as part of the Navy Training System Plan. (Yes or No, and document)

Documentation Requirements: None.

6.1.13 Open Architecture - Naval Open Architecture Rule Requiring National Security Systems Employ a Modular Architecture

Artifact Name: Open Architecture - Naval Open Architecture Rule Requiring National Security Systems Employ a Modular Architecture

Artifact CI Number: RUL_OAMOD-U-1.0.000

Artifact Definition: Use modular designs for system architectures

Artifact Introduction: DON EA v2.0.000

Artifact Compliance Commences: 01 Oct 2010

Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS

Artifact Effect: Affects Solution Architecture and System Design/Functionality

DON EA Usage Description:

This rule is based on requirements contained in the DoD and DON 5000 series of directives, which require use of an open architecture approach to acquisition and design. Acquiring modular systems will facilitate innovation, competition, reuse, and alternative business models and is one of the five core principles of Naval Open Architecture.

Compliance Criteria:

<p>Does the system have a modular architecture?</p> <p>Evidence of system modularity may include the systems engineering plan, DoD Architecture Framework products, or a description of how all modules identified by the system's architecture exhibit the modular design characteristics including encapsulated, cohesive, self-contained, and loosely-coupled.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.14 Open Architecture - Use open standards for key interfaces

<p>Artifact Name: Open Architecture - Use open standards for key interfaces</p>
<p>Artifact CI Number: RUL_OASTD-U-1.0.000</p>
<p>Artifact Definition: Acquisition programs shall employ a modular, open systems approach (MOSA), where feasible. The use of open standards for key interfaces is part of this approach.</p>
<p>Artifact Introduction: DON EA v2.0.000</p>
<p>Artifact Compliance Commences: 01 Oct 2010</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: Solution Architecture and System Design/Functionality</p>
<p>DON EA Usage Description: The use of open, industry standards improves the ability of DON programs to conduct competitions among vendors for additional components or to upgrade the original system and/or components since they will be widely available and potential vendors should have experience in implementing those standards.</p>
<p>Compliance Criteria:</p> <p>The systems use open standards for key interfaces:</p> <p>The program has selected open standards for key interfaces based on established selection criteria. Evidence of this may include: DoD Architecture Framework documents,</p>

interface control documentation, and standards profiles.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.
Documentation Requirements: None

6.1.15 Open Architecture - Competitive Sourcing

Artifact Name: Open Architecture - Competitive Sourcing
Artifact CI Number: RUL_OACS-U-1.0.000
Artifact Definition: Navy and Marine Corps program acquisition plans should call for re-competition of the system and/or components every 3 - 7 years.
Artifact Introduction: DON EA v2.0.000
Artifact Compliance Commences: 01 Oct 2010
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: Solution Architecture and Systems Functions.
DON EA Usage Description: To assess the degree to which open standards enable interchangeability of similar products from different vendors to increase competition and help prevent vendor lock-in.
Compliance Criteria: Can the systems components be substituted with similar components from competitive sources? Do open standards enable interchangeability of similar products from different vendors? For example, All components and commercial products used in the system can be interchanged with similar products from multiple vendors, acceptable evidence includes: acquisition strategy documents, verification and test results.
Required Actions Based on Lifecycle: Compliance with this DON EA artifact is required at all phases of the acquisition

lifecycle.
Documentation Requirements: None

6.1.16 Open Architecture - Asset Reuse Strategy

Artifact Name: Open Architecture - Asset Reuse Strategy
Artifact CI Number: RUL_OARUSE-U-1.0.000
Artifact Definition: Navy and Marine Corps programs must develop an asset reuse strategy in accordance with naval policy.
Artifact Introduction: DON EA v2.0.000
Artifact Compliance Commences: 01 Oct 2010
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS
Artifact Effect: Solution Architecture and System Design/Functionality
DON EA Usage Description: Effective asset reuse must be done strategically rather than on an ad-hoc basis in order to obtain the maximum return on investment from software reuse.
<p>Compliance Criteria:</p> <p>Does the Program have a software reuse strategy?</p> <p>The unit of assessment is constructed from a number of elements, some of which may be reusable and others not. A reuse strategy will guide the engineers in how these elements are reused, re-engineered, adapted and assembled into the unit of assessment; always taking cost and schedule into account. Some of this strategy is process, some organizational, some pragmatic, and some is architectural. All of these elements must be put in place to develop a good reuse strategy.</p> <p>In order for reuse to be effective, the assemblies that are candidates for reuse must be readily available, certified for reliability and performance, and easily obtained for reuse. Sufficient information must be available to enable users to include the assemblies with a minimal effort and maximum confidence. A process and supporting infrastructure to support reuse must be in place and widely used to gain maximum exposure for the reusable assemblies. Open standards on specification of reusable assets exist, especially to support tool-facilitated reuse and the development of reuse repositories. The reusable</p>

<p>assets should include UML models, documentation, training material, test procedures etc.</p> <p>In your rationale, indicate the main provision of the processes and policies that enable identifying and evaluating reusable assemblies. Please also cite any open standards utilized to support and facilitate reuse.</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.17 Open Architecture - Capability Improvement

<p>Artifact Name: Open Architecture - Capability Improvement</p>
<p>Artifact CI Number: RUL_OACAP-U-1.0.001</p>
<p>Artifact Definition: All naval programs should use competition and collaboration to assess and select among available capability improvement options.</p>
<p>Artifact Introduction: DON EA v2.0.000</p>
<p>Artifact Compliance Commences: 01 Oct 2010</p>
<p>Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS</p>
<p>Artifact Effect: Solution Architecture and System Design/Functionality</p>
<p>DON EA Usage Description:</p> <p>Well-constructed peer group reviews of candidate technologies and applications provide for independent and unbiased decision recommendations that provide the best options to the Program Manager to meet the urgent needs of the Fleet.</p> <p>This rule is designed to bring "best of breed" capability improvements from non-traditional DoD sources into the DON in an effort to increase competition and capabilities as well as reduce costs.</p>
<p>Compliance Criteria:</p> <p>Have program hardware and software upgrades been chosen using open competitive processes that include broad market research and use peer review groups or alternative</p>

forums in few if any occasions?
<p>Explanation:</p> <p>Open, competitive processes using peer review groups not only open the aperture to more potential sources of software; their use can increase the rate of innovation and operational capability injection to the Fleet.</p> <p>Example of Compliant Rationale:</p> <p>Peer review processes have been used to great effect in several innovative Navy programs and are an accepted feature in several ongoing efforts (e.g. ARCI, IPS).</p>
<p>Required Actions Based on Lifecycle:</p> <p>Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.</p>
<p>Documentation Requirements: None</p>

6.1.18 Emerging Country Code Standard

<p>Artifact Name: Emerging Country Code Standard</p>
<p>Artifact CI Number: RUL_CCODE_U-1.1.000</p>
<p>Artifact Definition: All IT/NSS systems, which store or make use of "country code" shall identify the mandated ISO 3166 standard, titled "Codes for representation of names of countries and their subdivisions," in their program architecture Technical Views.</p>
<p>Artifact Introduction: DON EA v2.0.000</p>
<p>Artifact Compliance Commences: 01 Oct 2010</p>
<p>Artifact Type: Mandatory for all IT/NSS</p>
<p>Artifact Effect: System Design/Functionality</p>
<p>DON EA Usage Description:</p> <p>The current country code standard mandated in the DoD Information Technology Standards Registry (DISR) is the International Organization for Standardization (ISO) 3166, titled "Codes for the representation of names of countries and their subdivision." Programs must appropriately document their recognition of the transition from the legacy</p>

FIPS 10-4 country code standard to the new ISO 3166 country code standard in their program architectures.

Compliance Criteria:

Has the IT/NSS system correctly documented the transition from FIPS 10-4 to ISO 3166 in their Program Architecture Technical Views?

Verification – The TV-1 will contain ISO 3166 as the mandated standard.

Required Actions Based on Lifecycle:

Compliance with this DON EA artifact is required at all phases of the acquisition lifecycle.

Documentation Requirements:

For ACAT programs; access to their solution architecture TV-1 & TV-2.

6.2 DON EA Reference Model (RM) Guidance

The DON EA Capstone contains a RM Layer, which is modeled after the Federal Enterprise Architecture (FEA) RMs and provides the standards to which architectures are to be developed. The RM Layer provides common lexicons and architectural artifacts that span the entire enterprise. Establishing authoritative reference information before development occurs is intended to ensure interoperability and integration internal to the DON EA and between individual solution architectures.

6.2.1 DON EA Common Lists

Artifact Name: Common Elements Lists (located in the DON Business RM and Service RM). (Note – In DITPR-DON, the common element lists will be referred to as “CEL”.)

Artifact CI Number:

RM_COAL-U-1.0.000 Common Operational Activity List

RM_CONL-U-1.0.000 Common Operational Nodal List

RM-UNTL-U-1.0.000 Universal Navy Task List

RM-UJTL-U-1.0.000 Universal Joint Task List

RM_CSFL-U-1.0.000 Joint Common Systems Function Lists

RM-CSL-U-1.0.000 Common System List
RM-CSNL-U-1.0.000 Common System Node List

Artifact Definition: The Common Elements Lists are the initial authoritative reference dataset for the DON EA. These elements lists are instances of entities or objects that are designated as an authoritative term and mandated for use.

Note - Alignment to DoDAF 2.0 terminology: the CONL should be considered a list of a performer of activities and the CSNL should be considered a list of locations for systems. The DON Architecture Product Guide (APG) and DON EA v2.1.000 will be updated to reflect the change to the Common Performer List (CPL) and the Common System Location List (CSLL).

Component Introduction: DON EA v2.0.000

Compliance Commences: 01 Oct 2010

Artifact Type: Mandatory for all ACAT Programs. Informational for Non-ACAT IT/NSS

Artifact Effect: Solution architectures

DON EA Usage Description: The DON EA is an integrated and segmented architecture. In order to ensure segments of the architecture are easily integrated, common terms must be used. Current lists include the following:

- Common Operational Activities List (COAL)
- Common Operational Node List (CONL)
- Joint Common Systems Function List (JCSFL)
- Common Systems List (CSL)
- Common Systems Node List (CSNL)
- Universal Naval Task List (UNTL)
- Universal Joint Task List (UJTL)

Compliance Criteria:

- **Compliant:** Common list terms, definitions, and descriptions **have** been used as the basis for solution architecture artifacts and exceptions only include “delta” terms and not “conflict” terms. “Delta” terms are defined as those that

are not substantially similar to terms, acronyms, definitions, or descriptions already contained in the Common Elements Lists.

- **Non-compliant:** Common list terms, definitions, and descriptions **have not** been used as the basis for solution architecture artifacts, or exceptions include one or more “conflict” terms, definitions, or descriptions. “Conflict” terms are defined as those that **are** substantially similar to terms, definitions, or descriptions already contained in the Common Elements Lists.

Required Actions Based on Lifecycle:

Program Guidance for Prior to Critical Design Review (CDR):

ACAT program solution architectures shall make use of the terms listed in the Common Elements Lists.

If the program needs to include new terms or descriptions in their solution architecture that are not currently listed in the applicable elements list, the program shall develop and provide an exceptions list. Until such time as a program’s proposed terms are deemed incorrect or in conflict, the program may use the terms that have been submitted.

Program Guidance Post CDR:

If the ACAT program is post CDR, their architecture terms will not require updating or modification. However, for completeness and re-use by other programs, the program shall provide an exceptions list for review and potential inclusion in future versions of the DON EA Common Lists.

Documentation Requirements:

ACAT programs shall develop and provide an exceptions list. This list should clearly identify which terms are “deltas” and which are “conflicts,” if any. This list shall also include definitions and identification of authoritative sources for each term. At a minimum, the exception list shall contain

1. Term and/or Acronym
2. Designation of the term as either “delta” or “conflict”
3. Definition
4. Description
5. Authoritative Source

6.3 DON EA Reference Architecture Layer Content

As is shown in Figure (1), the DON EA Reference Architecture Layer is comprised of the DON Enterprise Reference Architecture (ERA) and Segment Reference Architecture (SRA) sub-layers. Artifacts contained in the DON ERA span the entire enterprise and lay the foundation for the first tier of the SRAs. The primary purpose of the DON ERA and SRAs is to minimize the need for ACAT programs to document information in their solution architectures that is not specific to the particular program. This will facilitate and enable reuse and consistency across the numerous solution architectures of the DON.

6.3.1 DON Enterprise Reference Architecture (ERA) Content

6.3.1.1 Overview and Summary Information (AV-1)

Artifact Name: Overview and Summary Information (AV-1)
Artifact CI Number: ERA_AV1-U-2.0.000
<p>Artifact Definition:</p> <p>The DON EA AV-1 Overview and Summary Information view provides executive-level information in a consistent form to describe the architecture project and identify its purpose, viewpoint, context, and scope.</p>
<p>Component Introduction:</p> <p>DON EA v1.0.000</p> <p>(Updated as part of DON EA v2.0.000)</p>
Usage Commences: 01 Oct 2010
Artifact Type: Informational
Artifact Effect: None
<p>DON EA Usage Description:</p> <p>The DON EA AV-1 provides a description, scope and purpose of the current version of the DON EA. This view shall be posted in the DoD Architecture Registry System (DARS) to ensure the DON EA project is adequately described and discoverable by other DoD components.</p>
Compliance Criteria: None
Required Actions Based on Lifecycle: None

The AV-1 is informational only. No Action Required.

Documentation Requirements: None

6.3.1.2 Integrated Dictionary (AV-2)

Artifact Name: Integrated Dictionary (AV-2)

Artifact CI Number: ERA_AV2-U-1.0.000

Artifact Definition:

The AV-2 presents all metadata used in the DON EA, provides a text definition for each element, and references the source of the element.

Component Introduction: DON EA v2.0.000

Usage Commences: 01 Oct 2010

Artifact Type: Informational

Artifact Effect: None

DON EA Usage Description:

To facilitate a highly integrated architecture, programs must use common terms and lexicons when describing their architecture. Currently, the DON EA Common Lists act as the authoritative set of terms for ACAT programs to use in their solution architectures. The DON EA AV-2 is the formal documentation of all terms, definitions and descriptions contained in the DON EA. The DON EA AV-2 contains terms, descriptions and definitions from the DON Common Lists that have been used as part of the DON EA and its associated solution architectures. As the DON EA matures and contains more authoritative reference architectures, the DON EA AV-2 will become mandatory.

Compliance Criteria: None

Required Actions Based on Lifecycle:

The AV-2 is informational only. No Action Required.

Documentation Requirements: None

6.3.1.3 Capabilities Taxonomy (CV-2)

Artifact Name: Capabilities Taxonomy (CV-2)
Artifact CI Number: ERA_CV2-U-1.0.000
Artifact Definition: The CV-2 captures capability taxonomies. The model presents a hierarchy of capabilities. These capabilities may be presented in context of a timeline – i.e., it can show the required capabilities for current and future capabilities. The CV-2 can be used as a source document for the development of high-level use cases and user requirements.
Component Introduction: DON EA v1.1.000
Usage Commences: 01 Oct 2010
Artifact Type: Informational
Artifact Effect: None
DON EA Usage Description: The CV-2 provides the alignment of the DON EA to the Joint Capability Areas (JCA). It is used within the DON EA to demonstrate alignment of operational activities (OV-5s) to either the JCAs or the DoD Business Enterprise Architecture (BEA).
Compliance Criteria: None
Required actions Based on Lifecycle: None The CV-2 is informational only. No Action Required.
Documentation Requirements: None

6.3.1.4 Authoritative Organizational Relationship Charts (OV-4)

Artifact Name: Organizational Relationship Charts (OV-4) <ul style="list-style-type: none">• Administrative OV-4• High-level Operational OV-4
Artifact CI Numbers: ERA_OV4AM-1.0.000; ERA-OV4HL-1.0.000;

Artifact Definition:

The OV-4 illustrates the command structure or relationships (as opposed to relationships with respect to a business process flow) among human roles, organizations, or organization types that are the key players in architecture. The OV-4 provides the Operational Nodes for depiction in the OV-2.

Component Introduction: DON EA v2.0.000

Compliance Commences: 01 Oct 2010

Artifact Type: Mandatory for all ACAT Programs. Informational for Non-ACAT IT/NSS.

Artifact Effect: Solution architectures

DON EA Usage Description:

The DON intends to use the OV-4s as a method for ensuring that the organizational relationships within any given solution architecture align with known relationships, thereby eliminating the need for each ACAT program to create their own representation of the higher-level DON organizational structure.

Compliance Criteria:

- **Compliant:** Organizational name, acronym, and description/definition from DON EA OV-4s **have** been used as the basis for solution architecture artifacts and exceptions only include “delta” items and not “conflict” items. “Delta” items are defined as those that **are not** substantially similar to organizational names, acronyms, descriptions/definitions already contained in the DON EA OV-4s.
- **Non-compliant:** Organizational name, acronym, and description/definition from DON EA OV-4s **have not** been used as the basis for solution architecture artifacts or exceptions include one or more “conflict” items. “Conflict” items are defined as those that **are** substantially similar to organizational names, acronyms, descriptions/definitions already contained in the DON EA OV-4s.

Required actions Based on Lifecycle:

Program Guidance for Prior to Critical Design Review (CDR):

ACAT Program solution architectures shall do the following:

- Align to and re-use a subset of the DON EA OV-4s as the basis for the solution architecture OV-4, thereby eliminating the need for programs to

create organizational information/structure for higher-level DON organizations.

- If additional detail is required in the solution architecture, it must be mapped to the DON EA OV-4s.
- In addition, the solution architecture must use the nodes listed in its OV-4 (now aligned to the DON EA OV-4s) as the basis for the solution architecture's Operational Resource Flow Description (OV-2).

Program Guidance Post CDR:

If the ACAT program is post CDR, its solution architecture OV-4 will not require updating or modification.

Documentation Requirements:

ACAT programs shall provide access to their solution architecture OV-4.

6.3.1.5 “Notional” Organizational Relationship Charts (OV-4)

Artifact Name: Organizational Relationship Charts (OV-4)

- “Notional Operational Control(OPCON)
- “Notional” Tactical Control (TACON

Artifact CI Numbers: ERA-OV4OP-1.0.000; ERA-OV4TA-1.0.000

Artifact Definition:

These “Notional” OV-4s are designed only for use in architecture development, not for requiring specific command relationships. The “notional” OV-4 illustrates the command structure or relationships (as opposed to relationships with respect to a business process flow) among human roles, organizations, or organization types that are the key players in architecture. The OV-4 provides the Operational Nodes for depiction in the OV-2.

Component Introduction: DON EA v2.0.000

Compliance Commences: 01 Oct 2010

Artifact Type: Informational for all ACAT Programs. Informational for Non-ACAT

IT/NSS.
Artifact Effect: Solution architectures
<p>DON EA Usage Description:</p> <p>The DON intends to use the OV-4s as a method for ensuring that the organizational relationships within any given solution architecture align with known relationships, thereby eliminating the need for each ACAT program to create their own representation of the higher-level DON organizational structure.</p>
Compliance Criteria: None
Required actions Based on Lifecycle: None
Documentation Requirements: None

6.3.1.6 Technical Standards Description (TV-1)

Artifact Name: Technical Standards Description (TV-1)
Artifact CI Number: ERA_TV1 -U-1.0.000
<p>Artifact Definition:</p> <p>The DON EA TV-1 provides the set of current technical standards which are permitted for use by DON ACAT programs.</p>
Component Introduction: DON EA v1.1.000
Compliance Commences: 01 Oct 2010
Artifact Type: Mandatory for all ACAT Programs and Non-ACAT IT/NSS.
Artifact Effect: Affects ACAT program solution architectures and system design/functionality.
<p>DON EA Usage Description:</p> <p>The DON EA TV-1 is intended to facilitate system-to-system interoperability across the DON, by ensuring that DON ACAT programs make use of a consistent set of technical standards.</p>
Compliance Criteria

- **Compliant:** Only standards contained in the DON EA TV-1 are used in the solution architecture TV-1.
- **Non-Compliant:** Solution Architecture TV-1 includes standards not contained in the DON EA TV-1.

Required Actions Based on Lifecycle:

Program Guidance for Prior to Critical Design Review (CDR):

Prior to CDR, DON ACAT programs are only permitted to implement standards that are contained in the DON EA TV-1 and must document these standards in the program's solution architecture TV-1. Waivers must be requested, via the DON EA Waiver Process, for all standards implemented or planned to be implemented, which are not contained in the DON EA TV-1

Program Guidance for Post CDR:

Following CDR, DON ACAT programs may continue to procure and deploy in accordance with the program's solution architecture TV-1, as was approved at CDR. Waivers must be requested via the DON EA Waiver Process for all standards implemented or planned to be implemented, which are not contained in the DON EA TV-1.

Documentation Requirements:

ACAT programs shall provide access to their solution architecture TV-1.

6.3.1.7 Technical Standards Forecast (TV-2)

Artifact Name: Technical Standards Forecast (TV-2)
Artifact CI: ERA_TV2 -U-1.0.000
Artifact Definition: The TV-2 contains expected changes in technology-related standards and conventions.
Component Introduction: DON EA v1.1.000
Usage Commences: 01 Oct 2010
Artifact Type: Informational
Artifact Effect: Although the DON EA TV-2 is informational in nature, it may be used

as the starting point for an ACAT program's solution architecture TV-2
<p>DON EA Usage Description:</p> <p>The purpose of the TV-2 is to identify critical emerging technology standards and the impact of these standards on the future development and maintainability of DON systems.</p>
<p>Compliance Criteria: None</p>
<p>Required Actions Based on Lifecycle: None</p>
<p>Documentation Requirements:</p> <p>ACAT programs shall provide access to their solution architecture TV-2.</p>

6.3.2 DON Segment Reference Architecture (SRA) Content

6.3.2.1 Operational Activity Hierarchy (OV-5a)

<p>Artifact Name: Operational Activity Hierarchy (OV-5a)</p>
<p>Artifact CI Numbers: NC_OV5-U-1.0.000; BA_OV5-U-1.0.000; CC_OV5-U-1.0.000</p>
<p>Artifact Definition: The Operational Activity Node Tree (within DoDAF 2.0 the title of this view has been changed to Operational Activity Decomposition Tree) describes the operations that are normally conducted in the course of achieving a mission or a business capability. It describes capabilities and operational activities (or tasks) in a hierarchical taxonomy linked to specific leaf activities within the DON EA Segment Reference Architectures.</p> <p>The three OV-5a diagrams included in DON EA v2.0.000 are contained in the following DON EA SRAs:</p> <p>Battlespace Awareness (BA) – The ability to understand dispositions and intentions as well as the characteristics and conditions of the operational environment that bear on national and military decision-making.</p> <p>Command and Control (C2) – The ability to exercise authority and direction by a properly designated commander or decision maker over assigned and attached forces and resources in the accomplishment of the mission.</p> <p>Net-Centric (NC) – The ability to provide a framework for full human and technical connectivity and interoperability that allows all DoD users and mission partners to share the information they need, when they need it, in a form they can understand and act on</p>

with confidence, and protects information from those who should not have it.

Component Introduction: DON EA v1.1.000

Compliance Commences: 01 Oct 2010

Artifact Type:

- Mandatory for all ACAT Programs, which **are** aligned to one or more of the following DON EA SRAs/JCAs: BA, C2, NC.
- Informational for ACAT Programs, which **are not** aligned to at least one of the following DON EA SRAs/JCAs: BA, C2, NC.
- Informational for Non-ACAT IT/NSS

Artifact Effect: Solution Architecture

DON EA Usage Description: The BA, C2, and NC Operational Activity Hierarchies (OV-5a) are a key element of the DON EA SRA Layer, since they provide authoritative operational activities. They are used as the starting point for a program's solution architecture OV-5a, thereby eliminating the need for programs to develop higher-level nodes of their operational activity hierarchy, which are not specific to the particular program.

Compliance Criteria:

- **Compliant:** Applicable DON EA SRA OV-5s (i.e. BA, CC and NC) **have** been used as the basis for the ACAT program's solution architecture OV-5. Lower-level activities contained in the solution architecture OV-5 **are** mapped to the DON EA SRA OV-5s and exceptions only include "delta" activities and not "conflict" activities. "Delta" activities are defined as those that **are not** substantially similar to the names or descriptions/definitions already contained in the DON EA SRA OV-5s.
- **Non-compliant:** Applicable DON EA SRA OV-5s (i.e. BA, CC and NC) **have not** been used as the basis for the ACAT program's solution architecture OV-5. Lower-level activities contained in the solution architecture OV-5 **are not** mapped to the DON EA SRA OV-5s and exceptions include one or more "conflict" activities. "Conflict" activities are defined as those that **are** substantially similar to the names or descriptions/definitions already contained in the DON EA SRA OV-5s.

Required actions Based on Lifecycle:

Program Guidance for Prior to Critical Design Review (CDR):

ACAT program solution architectures shall do the following:

- Align to and re-use the applicable subset of the three DON EA SRA OV-5s (BA, CC, and NC) as the basis for the solution architecture OV-5, thereby eliminating the need for programs to recreate activity hierarchy information and structure that is already contained in the DON EA SRA OV-5s.
- If lower-tier activities and structure are required in the solution architecture OV-5, it must be mapped to the applicable activities in the DON EA SRA OV-5s.

Program Guidance for Post CDR:

If the ACAT program is post-CDR, its solution architecture OV-5 will not require updating or modification.

Documentation Requirements:

ACAT programs shall provide access to their solution architecture OV-5.