DoD Net-Centric Data Strategy and Community of Interest (COI) Training Glossary

Access Control: The protection of resources against unauthorized access; a process by which the use of resources is regulated by a security policy and is permitted by only authorized system entities according to that policy. (DoD Net-Centric Services Strategy)

Accessible: A data asset is accessible when a human, system, or application may retrieve the data within the asset. Data assets may be made accessible by using shared storage space or web services that expose the business or mission process that generates data in readily consumable forms. (DoD 8320.02)

Agility: The ability of an organization to respond quickly to demands or opportunities. (DoD Net-Centric Services Strategy)

Attribute: A distinct characteristic inherent in or ascribed to an entity; an entity's attributes are said to describe it. (DoD Net-Centric Services Strategy)

Authentication: To confirm a system entity's asserted principal identity with a specified or understood level of confidence. (DoD Net-Centric Services Strategy)

Authoritative Source: A source of data or information that is recognized by members of a COI to be valid or trusted because it is considered to be highly reliable or accurate or is from an official publication or reference (e.g., the United States (U.S.) Postal Service is the official source of U.S. mailing ZIP codes). (DoD 8320.02)

Business Function: Something an enterprise does, or needs to do, in order to achieve its objectives. (DoD Net-Centric Services Strategy)

Business Process: The complete response that a business makes to an event. A business process entails the execution of a sequence of one or more process steps. It has a clearly defined deliverable or outcome. A business process is defined by the business event that triggers the process, the inputs and outputs, all the operational steps required to produce the output, the sequential relationship between the process steps, the business decisions that are part of the event response, and the flow of material and/or information between process steps. (DoD Net-Centric Services Strategy)

Community of Interest (COI): A collaborative group of users that must exchange information in pursuit of its shared goals, interests, missions, or business processes and therefore must have shared vocabulary for the information it exchanges. (DoD 8320.02)

Consumer: An entity (human or machine) that makes use of a service to meet a particular need. (DoD Net-Centric Services Strategy)

Core Enterprise Services: That small set of services, whose use is mandated by the CIO, to provide awareness of, access to and delivery of information on the GIG. (DoD Net-Centric Services Strategy)

Credential: Data that is transferred to establish a claimed principal identity. (DoD Net-Centric Services Strategy)

Data Asset: Any entity that is comprised of data. For example, a database is a data asset that is comprised of data records. A data asset may be a system or application output file, database, document, or web page. A data asset also includes a service that may be provided to access data from an application. For example, a service that returns individual records from a database would be a data asset. Similarly, a web site that returns data in response to specific queries (e.g., www.weather.com) would be a data asset. A human, system, or application may create a data asset. (DoD 8320.02)

Data Producer: Refers to a program, organization, or even a person that controls, manufactures, and/or maintains data assets within the Department. (DoD 8320.02-G)

EIEMA: The Enterprise Information Environment Mission Area (EIEMA) is the DoD portfolio of programs, projects, and systems that deliver the EIE. The EIEMA portfolio enables the functions of the other mission areas, and encompasses all communications, computing, information assurance, and core enterprise service systems, equipment, or software that provide a common information capability or service for enterprise use. (DoD Net-Centric Services Strategy)

Enterprise: Refers to the Department of Defense, its organizations, and related Agencies. (DoD 8320.02)

Extensible Markup Language (XML): Is a tagging language used to describe and annotate data so it can be consumed by human and system interactions. XML is typically arranged hierarchically using XML elements and attributes. It also uses semantically rich labels to describe elements and attributes to enable meaningful comprehension. An example of XML data describing an element named "Person" appears as follows:
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<Person>
        <FirstName>John</FirstName>
        <MiddleInitial>H</MiddleInitial>
        <LastName>Doe</LastName>
</Person>
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(DoD Net-Centric Data Strategy)

Global Information Grid (GIG): The globally connected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information on demand to warfighters, policy makers, and support personnel. (DoD 8320.02)

Governance: The systems, processes, and procedures put in place to steer the direction, management, and accountability of an organization. In the context of the SOA

in the DoD, Governance means establishing and enforcing how DoD Components agree to provide, use, and operate services. (DoD Net-Centric Services Strategy)

Identity: The collective set of attributes that defines an entity (i.e., subject, resource, etc.) within a given context. (DoD Net-Centric Services Strategy)

Metadata: Information describing the characteristics of data; data or information about data; or descriptive information about an entity's data, data activities, systems, and holdings. For example, discovery metadata is a type of metadata that allows data assets to be found using enterprise search capabilities. (DoD 8320.02)

Metadata Registry: Repository of all metadata related to data structures, models, dictionaries, taxonomies, schema, and other engineering artifacts that are used to support interoperability and understanding through semantic and structural information about the data. A federated metadata registry is one in which multiple registries are joined electronically through a common interface and exchange structure, thereby effecting a common registry. (DoD 8320.02)

Mission Area: A defined area of responsibility with functions and processes that contribute to mission accomplishment. In the context of managing the DoD's portfolios of GIG investments, the DoD has four major categories of mission areas - the Warfighter Mission Area, the Business Mission Area, the Defense Intelligence Mission Area, and the Enterprise Information Environment Mission Area (EIEMA). (DoD Net-Centric Services Strategy)

Net-Centric Information Sharing: Relating to or representing the attributes of net-centricity. Net- centricity is a robust, globally interconnected network environment (including infrastructure, systems, processes, and people) in which data is shared timely and seamlessly among users, applications, and platforms. Net-centricity enables substantially improved military situational awareness and significantly shortened decision making cycles. Net-Centric capabilities enable network-centric operations and NCW. (DoD 8320.02)

Net-Centric Environment (NCE): The Net-Centric Environment is 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 with confidence; and protects information from those who should not have it. (Net-Centric Environment Joint Functional Concept, Version 1.0, April 7, 2005)

Network-Centric Warfare (NCW): An information superiority-enabled concept of operations that generates increased combat power by networking sensors, decision makers, and shooters to achieve shared awareness, increased speed of command, higher tempo of operations, greater lethality, increased survivability, and a degree of self-synchronization. In essence, NCW translates information superiority into combat power by effectively linking knowledgeable entities in the battlespace. (DoD 8320.02)

Ontology: An explicit specification of how to represent the objects and concepts that exist in some area of interest and of the relationships that pertain among them. (DoD 8320.02-G)

Schema: A diagrammatic representation, an outline, or a model. In relation to data management, a schema can represent any generic model or structure that deals with the organization, format, structure, or relationship of data. Some examples of schemas are (1) a database table and relational structure, (2) a document type definition (DTD), (3) a data structure used to pass information between systems, and (4) an XML schema document (XSD) that represents a data structure and related information encoded as XML. Schemas typically do not contain information specific to a particular instance of data. (DoD 8320.02-G)

Semantic Metadata: Information about a data asset that describes or identifies characteristics about that asset that convey meaning or context (e.g., descriptions, vocabularies, taxonomies). (DoD 8320.02)

Service: A mechanism to enable access to one or more capabilities, where the access is provided using a prescribed interface and is exercised consistent with constraints and policies as specified by the service description. (DoD Net-Centric Services Strategy)

Service Oriented Architecture: A paradigm for defining, organizing, and utilizing distributed capabilities in the form of loosely coupled software services that may be under the control of different ownership domains. It provides a uniform means to offer, discover, interact with, and use capabilities to produce desired effects that are consistent with measurable preconditions and expectations. (DoD Net-Centric Services Strategy)

Service Provider: An entity (i.e., person or organization) that offers the use of capabilities by means of a service. (DoD Net-Centric Services Strategy)

Structural Metadata: Information provided about a data asset that describes the internal structure or representation of a data asset (e.g., database field names, schemas, web service tags). (DoD 8320.02)

Taxonomy: Provides categorizations of related terms. In doing so, they make use of "class/subclass" relationships (i.e., they are hierarchical in conveying the relationships between categories). Taxonomies are important to ensuring that searches of discovery metadata and content are targeted. An example taxonomy of the various types of ISR data in several dimensions might be as follows:
    INT Type: HUMINT, SIGINT, ELINT, MASINT...
    Source Type: Human, Airborne, Space-based, ...
    Source Level: National source, tactical source, open source...
    Trust Level: Unevaluated, validated,…..
    Collection Purpose: Force protection, tactical, strategic, …. (DoD 8320.02-G)

Understandable: Capable of being comprehended in terms of subject, specific content, relationships, sources, methods, quality, spatial and temporal dimensions, and other factors. (DoD 8320.02)

Visible: Able to be seen, detected, or distinguished and to some extent characterized by humans and/or IT systems, applications, or other processes. (DoD 8320.02)

Vocabulary: Represents agreements on the terms and definitions common to the COI, including data dictionaries. For example, one COI might define the term "tank" to mean a pressurized vessel, whereas another might define "tank" to mean a tracked vehicle. Both definitions are acceptable, but the user must understand these definitions, and their context, to properly use the data. (DoD 8320.02-G)

Web Services: A standardized way of integrating web-based applications using open standards over an Internet Protocol backbone. Web services allow applications developed in various programming languages and running on various platforms to exchange data without intimate knowledge of each application's underlying IT systems. (DoD 8320.02)

Website: A collection of web pages, that is, HTML/XHTML documents accessible via Hypertext Transfer Protocol (HTTP) on the Internet, an intranet, or another network. The pages of a website can be accessed from a common root uniform resource locator (URL) using common web browsers. The URLs of the pages organize them into a hierarchy, although the hyperlinks between them control how the reader perceives the overall structure and how traffic flows between the different parts of the site. (DoD 8320.02-G)