

APPENDIX A

DEFINITIONS

Note: Unless stated otherwise, these terms of reference are defined by the Open Systems Joint Task Force (OSJTF).

Architecture

The organizational structure of a system or component, their relationships, and the principles and guidelines governing their design and evolution over time. (*IEEE 610.12*)

Commercial Item

The CI definition can be found in *Federal Acquisition Regulation (FAR) Subchapter A General, Part 2, 2.101 Definitions* at <http://www.arnet.gov/far/>

Component

A product that is not subject to decomposition from the perspective of a specific application. (*ISO 10303-1*)

Closed Interfaces

Privately controlled system/subsystem boundary descriptions that are not disclosed to the public or are unique to a single supplier.

De facto standard

A standard that is widely accepted and used but that lacks formal approval by a recognized standards organization. (*FED-STD-1037C*)

Design Architecture

An arrangement of design elements that provides the design solution for a product or life cycle process intended to satisfy the functional architecture and the requirements baseline. (*IEEE 1220*)

Domain

A grouping of related items within a certain area of interest.

End Product

The portion of a system that performs the operational functions and is delivered to an acquirer. (*IEEE 1220*)

Evolutionary Acquisition

Evolutionary acquisition is the preferred DoD strategy for rapid acquisition of mature technology for the user. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. The objective is to balance needs and available capability with resources, and to put capability into the hands of the user quickly. (DoDI 5000.2 approved May 12, 2003)

Functional Architecture

An arrangement of functions and their sub-functions and interfaces (internal and external) that defines the execution sequencing, conditions for control or data flow, and the performance requirements to satisfy the requirements baseline. (*IEEE 1220*)

Interface

The functional and physical characteristics required to exist at a common boundary or connection between systems or items. (*DoD 4120.214-M*)

Interface Standard

A standard that specifies the physical, functional, and operational relationships between various elements (hardware and software), to permit interchangeability, interconnection, compatibility and/or communications.

Interoperability

The ability of systems, units, or forces to provide data, information, materiel, and services to and accept the same from other systems, units, or forces, and to use the data, information, materiel, and services so exchanged to enable them to operate effectively together. (*DoDD 5000.1*)

Intraoperability

The ability to (1) interchange and use information, services and/or physical items among components within a system (platform, program or domain) and (2) support the common use of components across various product lines.

Joint Integrated Architecture

An architecture that establishes the basis for rapidly acquiring affordable and evolving joint warfighting capabilities through collaborative planning, analysis, assessment, and decision making.

Key Interface

A common boundary shared between system modules that provides access to critical data, information, materiel, or services; and/or is of high interest due to rapid technological change, a high rate of failure, or costliness of connected modules.

Modular Design

A design where functionally is partitioned into discrete, cohesive, and self-contained units with well-defined interfaces that permit substitution of such units with similar components or products from alternate sources with minimum impact on existing units.

Modular Open Systems Approach

An integrated business and technical strategy that employs a modular design and, where appropriate, defines key interfaces using widely supported, consensus-based standards that are published and maintained by a recognized industry standards organization.

Module

An independently operable unit that is a part of the total structure. (Merriam-Webster)

Open Architecture

An architecture that employs open standards for key interfaces within a system.

Open Standards

Standards that are widely used, consensus based, published and maintained by recognized industry standards organizations.

Open System

A system that employs modular design, uses widely supported and consensus based standards for its key interfaces, and has been subjected to successful validation and verification tests to ensure the openness of its key interfaces.

Proprietary Standard

A standard that is exclusively owned by an individual or organization, the use of which generally would require a license and/or fee.

Reference Model

A structure which allows the modules and interfaces of a system to be described in a consistent manner.

Spiral Development

A process for implementing evolutionary acquisition within which the end-state requirements are not known at program initiation but are refined through continuous user feedback, demonstration, and risk management so that each increment provides the user the best possible capability.

Stakeholder

An enterprise, organization, or individual having an interest or a stake in the outcome of the engineering of a system. (*EIA-632, Annex A*)

Standard

A document that establishes engineering and technical requirements for products, processes, procedures, practices, and methods that have been decreed by authority or adopted by consensus. (*EIA-632, Annex A*)

Subsystem

A grouping of items that perform a set of functions within a particular end product. (*EIA-632, Annex A*)

System

A combination of two or more interrelated pieces of equipment (or sets) arranged in a functional package to perform an operational function or to satisfy a requirement. (*Defense Acquisition Glossary of Terms, Jan 2001*)

System Architecture

The composite of the design architectures for products and their life cycle processes. (*IEEE 1220-1998*)

Weapon System

An item or set of items that can be used directly by warfighters to carry out combat or combat support missions to include tactical communication systems. (*DoDI 5000.2*)