



Chief Architects Forum

Leveraging Internet Tools for Collaboration

The Federal Enterprise Architecture Glossary Of Terms

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Chairman, CAF
September 20, 2005

Understanding Evolving EA Technology Strategies

Panelists

Ira Grossman (Moderator)

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General Services Administration

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Co-Chair, Emerging Technology Subcommittee, Architecture &
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 **What Are We Talking About?**



Constituencies within the EA Community

1. Executive Branch of the Federal Government
2. Legislative Branch including Congress and the GAO;
3. State and Local Governments
4. International Governments, Organizations and Companies
5. IT Research, Advisory Services, and Strategic Consulting Community
6. EA Vendors
7. EA Advisory and Professional Organizations
8. EA Support Consultants and Contractors
9. EA Conference Community
10. Universities
11. EA Continuing Education/Certification Community
12. News Media
13. Citizens/Public

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 **What Are We Talking About?**

- **Federal Enterprise Architecture (FEA)** is a business-based **framework** for government-wide improvement.
- **Technical Reference Model (TRM)** is a **foundation** to describe the standards, specifications, and technologies supporting the delivery, exchange, and construction of business (or Service) components and E-Gov solutions.



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Enterprise Architecture Glossary of Terms

3.2.9 Develop an Enterprise Architecture Glossary of Terms

- The FEAPMO, in collaboration with the CIO Council AIC and the IAC, will develop a **comprehensive glossary of EA terms and their respective meanings to facilitate communication throughout the FEA Practice.**
- Agencies will not only be able to use the glossary as a **basic reference for understanding EA-related documents**, but also to ensure consistency in communication and establish a common understanding with OMB and other agencies regarding EA information.
- Using a **shared set of common terminology** to describe the elements of their enterprise architectures, agencies will reap greater value from their EA efforts through a better understanding of the state of the FEA Practice and more effective communication across the government.

Ref: [Enabling Citizen-Centered Electronic Government 2005 - 2006 FEA PMO Action Plan, March 2005](#)




Internet Tools for Collaboration

• Collaborative Site

- **Wiki:** (<http://colab.cim3.net/cgi-bin/wiki.pl?WikiHomePage>): The Wiki is the COLAB Community Wiki, and is a community for collaborative documentation. CAF documents and announcements are posted to the Wiki.



• Registries and Repositories

- **Core.gov:** (<https://www.core.gov/>): Core.gov is a government site that hosts a section for the CAF. CAF information such as announcements and reports are posted here.
- **ET.gov:** Will be launched in April 2005 and potentially interface with [Core.gov](#)
- **Solutions Exchange:** The Solutions Exchange (TSE) was created by the CIO Council's Best Practices Committee as a clearing house for reusable IT investments from across government.



What Is a Wiki?

- **wiki**¹
- Wiki-wiki is the Hawaiian word for quick.
- Wiki Web sites are sites designed for users to be able to make additions or edit any page of the site. They often have a common vocabulary, and consider themselves a "Wiki" community.



Ref: ¹<http://www.answers.com/main/ntquery?s=wiki&method=2&gwp=13> © 1999-2005 by GuruNet. All rights reserved.

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Chief Architects Forum Wiki Page

<http://colab.cim3.net/cgi-bin/wiki.pl?ChiefArchitectsForum>

ColabWiki: Chief Architects Forum - Microsoft Internet Explorer

ChiefArchitectsForum

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Chief Architects Forum Home Page

Introduction:

What is the Chief Architects Forum?

- The Chief Architects Forum serves as a formal mechanism for the voice of the Chief Architect Community to be heard by the AIC Leadership, CIO Council, and OMB.
- The Forum is comprised of Chief Architects from federal government agencies.
- Provides an opportunity for Chief Architects to get together to share real world experiences and identify specific issues to promote EA successes.

What is the purpose of CAF?

- To assist Chief Architects in improving the practice and usefulness of architectures in their agencies and in the Federal Government at large.

What is the philosophy of CAF?

- The CAF represents the shared voice of the EA community through a cooperative forum and that federal – wide EA success rests squarely on the success of the individual and departments.

What is the Operational Model of the CAF?

- The CAF meets quarterly and focuses on topics that are relevant to advancing the practice of EA.
- During the meetings, participants are facilitated in small group breakout sessions on various EA topics.
- A discussion summary of the meeting is prepared, which includes analysis, and is disseminated to the CAF list serve.
- The summary is also sent to the AIC Leadership.

Key Date(s) to Note:

- All Chief Architect Forums will be held on Thursday afternoons from 1:00 - 4:00 PM Eastern Time at the NOAA Science Center in Silver Spring, MD.
 - February 6, 2006
 - February 23, 2006
 - May 4, 2006
 - August 22, 2006
 - August 22, 2005 Special OMB #EAPHO/CAF Meeting at Department of Commerce
 - October 6, 2005 (change from original date)
 - January 26, 2006
 - April 6, 2006
 - July 20, 2006
 - October 12, 2006

What's New?

- Calendar Year 2006 CAF Meeting Dates Announced
- Enterprise Architecture Glossary of Terms - open, collaborative development underway
- See <http://ontologyportal.org> as a resource
- How to subscribe to the Chief Architects Forum
- Presentation to Architecture & Infrastructure Committee

Your Visited Pages

- ChiefArchitectsForum
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ColabWiki: Enterprise Architecture Glossary Of Terms - Microsoft Internet Explorer

http://colab.cim3.net/cgi-bin/wiki.pl?Enterprise_Architecture_Glossary_Of_Terms

Enterprise Architecture Glossary Of Terms

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Chief Architects Forum (2004)

HowToComment (2004)

Enterprise Architecture Glossary of Terms Version 1.0 (under development) (2005)


- Application (2004)
- Application Programming Interface (API) (2004)
- Architecture (2004)
- Architecture Framework (2004)
- Architecture, Application - (Application Architecture) (2004)
- Architecture, Component - (Component Architecture) (2004)
- Baseline Architecture - (As Is Architecture) (2004)
- Best Practice (2004)
- Business Process Reengineering (BPR) (2004)
- Business Alignment (2004)
- Business Context (2004)
- Business Functions (2004)
- Business Operating Unit (2004)
- Business Process (2004)
- Business Reference Model (BRM) (2004)
- Business Rule (2004)
- Capability (2004)
- Capability Maturity Model (2004)
- Capital assets (2004)
- Capital planning and investment control (CPIC) (2004)
- Capital programming (2004)
- Capital project (Investment) (2004)
- Change (2004)
- Collaboration (2004)
- Collection (2004)
- Community of Practice (2004)
- Component (2004)
- Component Based Architecture (CBA) (2004)
- Component, Business Business Component (2004)
- Component, COTS (2004)
- Component, Enterprise Enterprise Component (2004)
- Component, Infrastructure Infrastructure Component (2004)
- Component, Technical National Component (2004)
- Component, Technical Technical Component (2004)
- Consumable (2004)
- Context Descriptions (2004)
- Convergence (2004)
- Core Gov (Core.gov) (2004)
- Data Asset Description (2004)
- Data Dictionary (2004)
- Data Element (2004)
- Data Management Strategy (2004)
- Data Model (2004)
- Data Object (2004)
- Data Property (2004)
- Data Reference Model (DRM) (2004)

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Search

 **Federal Enterprise Architecture Glossary of Terms (Working First Draft)**

- Application
- Application Programming Interface (API)
- Architecture
- Architecture Framework
- Architecture, Application - (Application Architecture)
- Architecture, Component - (Component Architecture)
- Baseline Architecture - (As Is Architecture)
- Best Practice
- Business Process Reengineering (BPR)
- Business Alignment
- Business Context
- Business Functions
- Business Operating Unit
- Business Process
- Business Reference Model (BRM)
- Business Rule
- Capability
- Capability Maturity Model
- Capital assets
- Capital planning and investment control (CPIC)
- Capital programming
- Capital project (Investment)
- Change
- Collaboration
- Collection

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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Community of Practice
- Component
- Component Based Architecture (CBA)
- Component, Business Business Component
- Component COTS
- Component, Enterprise - Enterprise Component
- Component, Infrastructure - Infrastructure Component
- Component, Notional Notional Component
- Component, Technical Technical Component
- Constituent
- Consumable
- Context Descriptions
- Convergence
- Core Gov (Core.gov)
- Data Asset Description
- Data Dictionary
- Data Element
- Data Management Strategy
- Data Model
- Data Object
- Data Property
- Data Reference Model (DRM)
- Data Representation
- Domain
- DRM Model Constructs


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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Earned value management (EVM)
- Encapsulation
- Energy savings performance contract
- Enterprise
- Enterprise Architecture
- Enterprise Service Bus (ESB)
- Extensibility
- Extensible Markup Language (XML)
- Factoring
- FEA Business Integration Patterns
- Federal Enterprise Architecture (FEA)
- Federated Architecture
- Federation
- Financial management systems
- Financial systems
- FISMA
- Formal Taxonomy
- Foundation
- Framework
- Full acquisition
- Full funding
- Funding source
- Gap Analysis
- GapFit Analysis
- Goals


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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Granularity
- High Risk investments
- Information Access Endpoint
- Information Exchange Package
- Information Flow
- Information Protection
- Information Resource Management Strategic Plan
- Information system
- Information Technology (IT)
- Information Value Chain Model
- Infrastructure
- Initiative
- Integrated Project Team (IPT)
- Integration
- Intellectual Property
- Interagency Acquisition
- Interface
- Interoperability Standards
- IT Migration investment
- IT Principle
- IT Product
- IT Strategic Objective
- Laws and Regulations
- Legacy System
- Lifecycle costs


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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Line of Sight
- Linkage
- Location
- Major IT acquisition/investment
- Message Oriented Middleware
- Metadata
- Metadata Registry
- Metamodel Constructs
- Methodology
- Migration Plan
- Mission
- Mixed lifecycle investment
- Mixed system
- Model
- Model Driven Architecture (MDA)
- Network
- New IT Investment
- Node Diagram
- Nonfinancial system
- Nonmajor IT Investment
- Objectives
- Ongoing IT investment
- OnGoing IT Investment
- Ontology
- Operational (steady-state)


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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Partner agency funding contribution
- Patterns
- Performance Measure
- Performance Reference Model (PRM)
- Performance based acquisition management
- Planning
- Platform
- Privacy impact assessment (Privacy Impact Assessment)
- Program
- Program Manager
- Project
- Reference Model
- Registry
- Relational Table
- Repository
- Reuse
- Risk adjusted lifecycle costs
- Risk Management Plan
- Schema
- Semantic Ontology
- Sequencing Plan
- Service
- Service Component Reference Model (SCRM)
- Service Level Agreement
- Service Oriented Architecture (SOA)

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Federal Enterprise Architecture Glossary of Terms (Working First Draft)

- Shared Services
- Share In Savings contract
- Sharing Descriptions
- Solution Assembly
- Stakeholder
- Strategic Objective
- Strategies
- Subclass
- SubFunction
- Subject Areas
- Subject Taxonomy
- Target Architecture
- Technical Reference Model (TRM)
- Test Harness
- Transition Strategy
- Transition Plan
- UDDI Directory
- Use Case
- Useful segment/module
- Utility energy efficiency service contract (UREESC)
- Vision
- Web Services
- Wrapping
- WSDL
- XML Schema

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Sources for EA Glossary of Terms, Version 1.0

- OMB Circular No. A-11, Section 53, Information Technology and E-Government (2005)
- OMB Circular No. A-11 Section 300 -Planning, Budgeting, Acquisition (2005)
- Five FEA Reference Models
- OMB Assessment Framework Version 1.5
- OMB Federal Enterprise Architecture Program Management Office
- Federal CIO Council Architecture and Infrastructure Committee



Definition Construct

- **OMB Definition**
 - Verbatim text from OMB Circular No. A-11, Section 53, Information Technology and E-Government and Section 300 -Planning, Budgeting, Acquisition (2005)
- **Business Definition**
 - Non-technical definition ("Dummies" Definition)
 - Intended for the business community
 - Most general definition
- **Technical Definition**
 - Intended for the IT community
 - Provides technical specificity
 - In conformance with Business Definition
- **Context Definitions**
 - Intended for specific Department or organization
 - Provides greater detail or clarity than Technical Definition
 - In conformance with Business and Technical Definition
 - Cannot conflict with Business and Technical Definition
 - Can have multiple Context Definitions

Extensible Markup Language

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IraGrossman ([preferences](#) | [logout](#))



Extensible Markup Language (XML) (2PXX)

Business Definition (2PXY)

XML is a way for representing the structure and meaning of electronic information, whether it be data, text, or sound. (2PXZ)

Technical Definitions (2PY0)

W3C 'recommendation' (i.e., standard) for building new markup languages for Web delivery (2PSA)
A simplified form of SGML, allowing inexpensive, fast, Web browsers; XML is a subset of SGML (Ref: Intelligence Community Metadata Working Group / <http://www.xml.saic/icm/terminology.asp>) (2PSB)

The Extensible Markup Language (XML) is a W3C-recommended general-purpose markup language for creating special-purpose markup languages. It is a simplified subset of SGML, capable of describing many different kinds of data. Its primary purpose is to facilitate the sharing of structured text and information across the Internet. Languages based on XML (for example, RDF, RSS, MathML, XSL and SVG) are themselves described in a formal way, allowing programs to modify and validate documents in these languages without prior knowledge of their form. (Wikipedia / Ref. <http://en.wikipedia.org/wiki/XML>) (2PKX)

Representations/ Renderings (2PS8)

Simple Knowledge Organization System (SKOS) (2PS9)

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Last edited April 27, 2005 6:56 ([diff](#))

Writers' First Review Draft Federal Enterprise Architecture (FEA)

Origin/Source for Inclusion of the Term (2VSG)

(1) OMB Circular No. A-11 (2005) Section 53—Information Technology and E-Government (2) OMB Circular No. A-11 (2004) Section 300—Planning, Budgeting, Acquisition, And Management of Capital Assets (2VSH)

OMB Context Definition (2VSI)

The FEA is a business-based framework for government-wide improvement. It describes the relationship between business functions and the technologies and information that support them. The FEA is being constructed through a collection of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across federal agencies. For FY 2007, major IT investments should be aligned with each reference model within the FEA framework, except for the Data Reference Model. (2VSJ)

Reference/URL OMB Context Definition (2VSK)

OMB Circular No. A-11 (2005) Section 53—Information Technology And E-Government (2VSL)

Business Definition (2VSM)

The Federal Enterprise Architecture is the totality of all the Executive Branch Departments' and Agencies' Enterprise Architectures. (2VSN)

Reference/URL for Business Definition (2VSO)

Ira M. Grossman, NOAA Chief Enterprise IT Architect, June 24, 2005 (2VSP)

Technical Definition (2VSQ)

The FEA depicts the baseline (as-is) and target logical (to-be) architectures for the business, data, services, information and infrastructure views of the Federal Government's Executive Branch and includes the gap analysis, sequencing plan and reference models to implement and to attain the expected outcome. (2VSR)

Writers' First Review Draft Federated Architecture

Business Definition (2VTB)

Large, complex organizations with independent lines of business (LOBs) that distribute the administrative and IT functions among several local authorities. (2VTC)

Reference/URL for Business Definition (2VTD)

The Meta Group, META Delta 46, "Federated Architectures: Integrating Autonomous LOBs", March 1, 1999 Decentralized, Dictionary.com, "The American Heritage® Dictionary of the English Language, Fourth Edition" Copyright © 2000 by Houghton Mifflin Company. <http://dictionary.reference.com/search?q=decentralized>, accessed June 29, 2005 (2VTE)

Technical Definition (2VTF)

Defines common or shared IT architecture standards and principles across Lines of Business (LOBs). It enables LOBs to maintain diversity and uniqueness, while providing interoperability. LOBs have full autonomy to develop standards for applications and infrastructure and to define enterprise architectures. The goal of the LOB is to optimize performance at LOB level.

Writers' First Review Draft Federated Architecture

Proposed Change Submitted by Edward Newman (Matt) (2Y8K)

Federated Enterprise Architecture: A collective set of organizational architectures (as defined by the enterprise scope), operating collaboratively within the concept of federalism, in which governance is divided between a central authority and constituent units balancing organizational autonomy with enterprise needs. The central authority's architecture focuses on the dynamics of economies of scale, standards, and the well being of the enterprise, while constituent units' architecture has the flexibility to pursue autonomous strategies and independent processes. (2Y8L)

Rationale: (2Y8M)

To the point why was the verb "federated" added to enterprise architecture? To address a complex or multi-mission enterprise that has multiple enterprise architectures functioning as a collective. A Federated Enterprise Architecture embraces the concept of Federalism – "A system of government in which power is divided between a central authority and constituent political units" Webster (2Y8N)

The principles of Federalism can be gleaned from the Federalist Papers or, for a more contemporary view, from an excellent discussion of Federalist concepts in business, Charles Handy's "Balancing Corporate Power: A New Federalist Paper", Harvard Business Review, Nov-Dec 1992. He proposes guiding principles that embody Federalism. With great liberty, these principles have been interpreted in the context of Enterprise Architecture as – (2Y8O)

Heightened emphasis on Governance – Shared Power Integration and acceptance of multiple Enterprise Architectures Focus on cross-functional processes and standards by the "Parent" organization Focus on unique or less frequently occurring functions by supporting organizations (2Y8P) The key characteristic is the balancing of control (i.e., power) between "Headquarters" and the quasi autonomous organizational units with the implied goal of a flexible and adaptive pluralistic enterprise that is sustainable. This requires an alliance based on trust and common goals (Handy, 1992).

(2Y8Q)

In the author's opinion there are two Federated Enterprise Architectures that faithfully embrace the concept of Federalism these are: (2Y8R)

Canada's Federated Enterprise Architecture (http://www.tbs-sct.gc.ca/fap-paf/index_e.asp) New Jersey's Federated Enterprise Architecture (<http://www.state.nj.us/it/spf.pdf>) (2Y8S) In addition there is an interesting discussion of Federated Architecture in support of supply chains – * <http://www.sockeyesolutions.com/pdfs/fedent.pdf> (2Y8U)

While the definition originally proposed in the CAF does embrace some of the key characteristics of Federalism, the focus on LOBs is misguided. While a LOB can have an architecture, it is not an Enterprise Architecture. The term "Enterprise" is more expansive and is organizationally based (see definition for Enterprise in the glossary forum). The whole concept of Federalism is a collection of organizational units operating collaboratively not a line of business. Further there is insufficient emphasis on Governance. In a separate topic, an alternative definition is proposed for consideration. (2Y8V)

Edward Newman (Matt) Information Resources Management College National Defense University (202) 685-2693



How to Comment

Use discussion forum method to anchor your comments to the relevant paragraph: (2J0T)

Right click on the "purple number" following the section identified for comment, like the "2J0U" at the end of this line (2J0U)

Select copy shortcut (2J0V)

Paste into your email message with subject line - Comments (2J0W)

Subscribe to the appropriate discussion forum for your comments: (2PYF)

Subscribe to the Chief Architects Discussion Forum (2PYE)

For Chief Architects Forum EA glossary of terms: caf-forum@colab.cim3.net (2PY8)

Example comment provided below; "purple number" shortcut is pasted in after ref: (for reference) (2J0X)

Send your message to the appropriate public site: (2PY7)



Example: Comment

- ref: http://colab.cim3.net/cgi-bin/wiki.pl?Extensible_Markup_Language#nid2PXX (2PY9)
- suggest changing business definition of Extensible Markup Language to read: XML is a notation system for representing the underlying structure and meaning of electronic information, whether it be data, text, or sound. (2J11)
 - (--SusanTurnbull / 2005.05.27 12:30pm EST) (2J13)
- Comments received for the Data Reference Model (DRM) Public Forum will be added to the bottom of the relevant page with the corresponding "purple number" link. (2J1A)
- Comments received on the Enterprise Architecture Glossary of Terms will be reconciled by the Chief Architects' Forum. (2PYB)

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Questions and *Hopefully* Answers

