Build TOGAF in the Cloud

Slides

New Trends in Enterprise Architecture

Enterprise Architecture Defined

The Open Group Architecture Framework (TOGAF®)

  Introduction
  Overview
  History

TOGAF topics

  Enterprise architecture domains
  Architecture Development Method
  Enterprise Continuum
  TOGAF Certified Tools

Alternative enterprise architecture frameworks

Semantic Enterprise Architectures

  Interoperability Interfaces (in process)
  Semantic Technologies and Linked Data for Enterprise Data Management
  Semantic Information Modeling for Federation (SIMF)

Ontology Driven Implementation of Semantic Services for the Enterprise Environment (ODISSEE) Workshop

Agenda

  Day One: April 12, 2011
  Day Two: April 13, 2011

Abstracts

  Barry Smith
  Christopher Kirkos
  Dave Kolas
  Dave McComb
  James Schoening
  Kajal Claypool
  Leo Obrst
Lowell Vizenor
Putting NextGen Ontologies to Work
UCore-SL: An Overview and Some Suggested Improvements
Lt Col Shawn O'Day
Mark Guiton
Ralph Hodgson
Willim Mandrick
Tweets
Emails
The Open Group Conference London Panel Using the Cloud
The Open Group Conference London UDEF Deployment and Demo
Technology, Engineering & Innovation in the U.S. Department of Defense
The IDEAS Group Ontology
SICoP 2011: Transforming Government through Innovation with Semantic Technologies
DoD EA Conference 2010: DoD Enterprise Architecture and Interoperability Approach
Semantic Interoperability for Enterprise Engineering - Bridging the Chasms
Tuesday 26 July 2011
Wednesday 27 July 2011
Thursday 28 July 2011
Potential Additional Activities
MindMap and Flow Diagram with Spotfire
Open Group
TOGAF
Standards Information Base (SIB)
Principle 14: Common Vocabulary and Data Definitions
SOA Work Group - Ontologies for SOA
FEA Reference Model Ontology
DoDAF
EA Principals
EA and the Cloud: Dramatic Business Value
Speakers for the March 23, 2011 Event
Speakers for the April 26, 2011 Event

New Trends in Enterprise Architecture
GSA Acquisition Commissioner Kempf: "Through the Federal Cloud Computing Initiative, we are changing the way government thinks about IT, shifting from a mindset of asset ownership to one of service provisioning." See recent Congressional Testimony, March 17, 2011.
DoDAF V2.0 focuses on architectural "data", rather than on developing individual "products" as described in previous versions. In general, data can be collected, organized, and stored by a wide range of architecture tools developed by commercial sources. It is anticipated that these tools will adopt the DM2 PES for the exchange of architectural data. Source: DoDAF V2.0 Introduction. Also see 2011 DoD EA Conference and Community Meeting (cancelled).

Since you now have an opportunity to start working with the Open Group towards "semantically enabling" the TOGAF architectural framework, it would seem that BeInformed might offer some very powerful tooling for next generation semantic architecture development (and execution!). Source: Mills Davis, March 14, 2011. Products Sheets: Overview and Government Solutions.

Why Nobody is Doing Enterprise Architecture, Excerpts, April 5, 2011, Jason Bloomberg, ZapThink

The problem is, neither Zachman nor TOGAF—or any other approach on the market, for that matter—is truly enterprise architecture. Why? Because nobody is doing enterprise architecture.

The truth of this bold statement is quite obvious when you think about it. Where does enterprise architecture take place today? In enterprises, of course. That is, existing enterprises. And you don’t architect things that already exist. Architecture comes before you build something!

OK, so if nobody is doing enterprise architecture, then who actually architects enterprises, and what are they actually doing?

The answer: nobody. Enterprises aren’t architected at all. They are grown.

Every entrepreneur gets this fundamental point. When entrepreneurs first sit down to hammer out the business plan for a new venture, they would never dare to have the hubris to architect an organization large enough to be considered an enterprise.

Does that mean there are no best practices for growing and nurturing a startup through all the twists and turns as it reaches the heights of enterprise-hood? Absolutely not. But most people don’t consider such best practices to fall into the category of architecture.

Growing a business, however, implies that there is no specific final state, the rest is left up to emergence.

Such emergence is the defining characteristic of complex systems: systems with emergent properties of the system as a whole that aren’t properties of any part of the system.

Perhaps it makes sense to call the establishment of best practices for emergence architecture. After all, if we can architect traditional systems, why can’t we architect complex ones? As a matter of fact, we do just that in our LZA course. If we have any hope of figuring out how to actually architect enterprises, after all, we’ll need to take a complex systems approach to enterprise architecture. It remains to be seen, however, if it’s possible to architect enterprises that way. Have an opinion on the matter? Let the arguments begin!

Enterprise Architecture Defined

An enterprise architecture (EA) is a rigorous description of the structure of an enterprise, which comprises enterprise components (business entities), the externally visible properties of those components, and the relationships (e.g. the behavior) between them. EA describes the terminology, the composition of enterprise components, and their relationships with the external environment, and the guiding principles for the requirement (analysis), design, and evolution of an enterprise. This description is comprehensive, including enterprise goals, business process, roles, organizational structures, organizational behaviors, business information, software applications and computer systems. Source: Wikipedia.
Practitioners of EA call themselves “enterprise architects.” An enterprise architect is a person responsible for developing the enterprise architecture and is often called upon to draw conclusions from it. By producing an enterprise architecture, architects are providing a tool for identifying opportunities to improve the enterprise, in a manner that more effectively and efficiently pursues its purpose. Source: Wikipedia

The Open Group Architecture Framework (TOGAF®)

Introduction

The Open Group Architecture Framework (TOGAF®) is a framework for enterprise architecture which provides a comprehensive approach to the design, planning, implementation, and governance of an enterprise information architecture.

TOGAF is a high level and holistic approach to design, which is typically modeled at four levels: Business, Application, Data, and Technology. It tries to give a well-tested overall starting model to information architects, which can then be built upon. It relies heavily on modularization, standardization and already existing, proven technologies and products.

Overview

An architecture framework is a set of tools which can be used for developing a broad range of different architectures. It should:

• describe a method for defining an information system in terms of a set of building blocks YES
• show how the building blocks fit together
• contain a set of tools YES
• provide a common vocabulary YES
• include a list of recommended standards YES
• include a list of compliant products that can be used to implement the building blocks

TOGAF is such an architecture framework.

The ANSI/IEEE Standard 1471-2000 specification of architecture (of software-intensive systems) may be stated as: "the fundamental organization of a system, embodied in its components, their relationships to each other and the environment, and the principles governing its design and evolution."

However TOGAF has its own view, which may be specified as either a "formal description of a system, or a detailed plan of the system at component level to guide its implementation", or as "the structure of components, their interrelationships, and the principles and guidelines governing their design and evolution over time."

History

TOGAF has been developed by the Architecture Forum of The Open Group and continuously evolved since the mid-1990s. In 1995 the first version of TOGAF Version was presented, which was "based on the Technical Architecture Framework for Information Management (TAFIM). The US Department of Defense gave The Open Group explicit permission and encouragement to create TOGAF by building on the TAFIM, which itself was the result of many years of development effort and many millions of dollars of US Government investment".
TOGAF 7 ("Technical Edition") was published in December 2001, TOGAF 8 ("Enterprise Edition") was first published in December 2002 and republished in updated form as TOGAF 8.1 in December 2003, which was updated in November 2006 as TOGAF 8.1.1. According to The Open Group as of February 2011 there are over 15,000 TOGAF Certified individuals.

The latest version is TOGAF 9, launched on 2 February 2009. An evolutionary development from TOGAF 8, TOGAF 9 includes many new features including

- Increased rigor including a formal Content Metamodel that links the artifacts of TOGAF together
- Elimination of unnecessary differences
- Many more examples and templates.

Additional guidelines and techniques include

- A formal business-driven approach to architecture scoping and segmentation
- Business capability-based planning
- Guidance on how to use TOGAF to develop Security Architectures and SOAs

The Open Group provides TOGAF free of charge to organizations for their own internal noncommercial purposes.

TOGAF topics

Enterprise architecture domains

TOGAF is based on four pillars, called architecture domains:

- Business architecture or business process architecture which defines the business strategy, governance, organization, and key business processes of the organization
- Applications architecture which provides a blueprint for the individual application systems to be deployed, the interactions between the application systems, and their relationships to the core business processes of the organization with the frameworks for services to be exposed as business functions for integration.
- Data architecture which describes the structure of an organization's logical and physical data assets and the associated data management resources
- Technical architecture or technology architecture which describes the hardware, software and network infrastructure needed to support the deployment of core, mission-critical applications

Architecture Development Method

The Architecture Development Method (ADM) is applied to develop an enterprise architecture which will meet the business and information technology needs of an organization. It may be tailored to the organization's needs and is then employed to manage the execution of architecture planning activities.

The process is iterative and cyclic. Each step checks with Requirements. Phase C involves some combination of both Data Architecture and Applications Architecture. Additional clarity can be added between steps B and C in order to provide a complete information architecture.
Performance engineering working practices are applied to the Requirements phase, and to the Business Architecture, Information System Architecture, and Technology architecture phases. Within Information System Architecture, it is applied to both the Data Architecture and Application Architecture.

**Enterprise Continuum**

The Enterprise Continuum may be viewed as a "virtual repository" (As of TOGAF 9 this not virtual any more) of all the architecture assets available to an organization. These include architectural models, architectural patterns, architecture descriptions, and other artifacts. These artifacts may exist within the enterprise and also in the IT industry at large.

The Enterprise Continuum consists of both the Architecture Continuum and the Solutions Continuum. The Architecture Continuum specifies the structuring of reusable architecture assets, and includes rules, representations and relationships of the information system(s) available to the enterprise. The Solutions Continuum describes the implementation of the Architecture Continuum by defining reusable solutions building blocks.

**TOGAF Certified Tools**

The Open Group has a certification program for TOGAF 8 Tools, and as of early 2011 plans to extend that to cover TOGAF 9 Tools. For the latest register of certified tools see The Open Group register [8].

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**Alternative enterprise architecture frameworks**

AGATE French Délégation Générale pour l'Armement Atelier de Gestion de l'ArchiTEcture des systèmes d'information et de communication.

DoDAF United States Department of Defense Architectural Framework. **YES**

The DoDAF defines a set of products that act as mechanisms for visualizing, understanding, and assimilating the broad scope and complexities of an architecture description through graphic, tabular, or textual means.

It is especially suited to large systems with complex integration and interoperability challenges, and is apparently unique in its use of "operational views" detailing the external customer's operating domain in which the developing system will operate.

Source: [Wikipedia](http://en.wikipedia.org/wiki/DoDAF)

DYA framework Sogeti Framework.

EIF European Interoperability Framework - Enterprise architecture at the level of EU Member States **SEMIC.EU-SEE BELOW**

The European Interoperability Framework (EIF) is a set of recommendations which specify how Administrations, Businesses and Citizens communicate with each other within the EU and across Member States borders.

The EIF 1.0 was issued under the Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens programme (IDABC). The EIF continues under the new ISA programme, which replaced the IDABC programme on 31 December 2009.

EIF in effect is an Enterprise architecture framework targeted at the largest possible scale, designed to promote integration spanning multiple sovereign Nation States, specifically EU Member States.

For further examples of Enterprise Architecture frameworks designed operate at different levels of scale, see also Alternative Enterprise Architecture Frameworks
IDABC Interoperable Delivery (of European egovernment services to public) Administrations, Business and Citizens SEMIC.EU-SEE BELOW

IDABC stands for Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens. IDABC is a European Union Program that promotes the correct use of Information and Communication Technologies (ICT) for cross-border services in Europe. It uses the opportunities offered by ICT to encourage and support the delivery of cross-border public sector services to citizens and enterprises in Europe, to improve efficiency and collaboration between European public administrations and to contribute to making Europe an attractive place to live, work and invest.

To achieve objectives like 'Interoperability', IDABC issues recommendations, develops solutions and provides services that enable national and European administrations to communicate electronically while offering modern public services to businesses and citizens in Europe. The programme also provides financing to projects addressing European policy requirements, thus improving cooperation between administrations across Europe. National public sector policy-makers are represented in the IDABC programme's management committee and in many expert groups. This makes of the programme a unique forum for the coordination of national eGovernment policies.

By using state-of-the-art information and communication technologies, developing common solutions and services and by finally, providing a platform for the exchange of good practice between public administrations, IDABC contributes to the i2010 initiative of modernising the European public sector. IDABC is a Community programme managed by the European Commission's Directorate-General for Informatics. In 2008, IDABC launched the Semantic Interoperability Centre Europe (SEMIC.EU). eGovernment and other pan-European collaborations can exchange their knowledge and their visions on SEMIC.EU.

IDABC follows the IDA-program[disambiguation needed]. The new ISA programme was adopted by the Council and the European Parliament in September 2009 and has replaced the IDABC programme, which came to an end on 31 December 2009.

The Semantic Interoperability Centre Europe (SEMIC.EU) is an eGovernment service initiated by the European Commission and managed by the Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens (IDABC) Unit. Being among the 'horizontal measures' of the IDABC, it is established as a permanent implementation of the principles stipulated in the 'European Interoperability Framework' (EIF). It is a service for the exchange of solutions to semantic interoperability, with a focus on demands of eGovernment in Europe. Through the establishment of a single point of sharing and collaboration the European Union wants to solve the problems of interoperability issues produced by closer European cooperation. The website and repository are based on open source software. Therefore the European Union's open source portal www.osor.eu provides SEMIC.EU technology for reuse.

Integrated Architecture Framework (IAF) created by Capgemini.

FEA United States Office of Management and Budget Federal Enterprise Architecture. YES

Federal Enterprise Architecture (FEA) is the Enterprise Architecture of a Federal Government. It provides a common methodology for information technology (IT) acquisition, use, and disposal in the Federal government. TAXONOMY FOR CATEGORIZING IT INVESTMENTS

Enterprise Architecture (EA) is a management practice for aligning resources to improve business performance and help agencies better execute their core missions. An EA describes the current and future state of the agency, and lays out a
plan for transitioning from the current state to the desired future state. Federal Enterprise Architecture is a work in progress to achieve these goals.

The U.S. Federal Enterprise Architecture (FEA) is an initiative of the U.S. Office of Management and Budget that aims to comply with the Clinger-Cohen Act and provide a common methodology for information technology (IT) acquisition in the United States federal government. It is designed to ease sharing of information and resources across federal agencies, reduce costs, and improve citizen services.


MIKE2.0 (Method for an Integrated Knowledge Environment) which includes an enterprise architecture framework called SAFE (Strategic Architecture for the Federated Enterprise)

MODAF United Kingdom Ministry of Defence Architectural Framework.

Model-driven architecture (MDA) Object Management Group's Model Driven Architecture. YES

Model-driven architecture (MDA) is a software design approach for the development of software systems. It provides a set of guidelines for the structuring of specifications, which are expressed as models. Model-driven architecture is a kind of domain engineering, and supports model-driven engineering of software systems. It was launched by the Object Management Group (OMG) in 2001. Source: Wikipedia

OBASHI (The OBASHI Business & IT methodology and framework.

PROMIS Framework The PROMIS Enterprise Architecture Framework integrated into the EA tool EVA Netmodeler

SABSA a comprehensive framework for Enterprise Security Architecture and Service Management.

SAP Enterprise Architecture Framework is extension of TOGAF to better support Commercial off-the-shelf and Service-Oriented Architecture

Zachman Framework IBM Framework from the 1980s. YES

The Zachman Framework is an Enterprise Architecture framework for enterprise architecture, which provides a formal and highly structured way of viewing and defining an enterprise. It consists of a two dimensional classification matrix based on the intersection of six communication questions (What, Where, When, Why, Who and How) with six rows according to reification transformations. SIX JOURNALISTIC QUESTIONS

The Zachman Framework is not a methodology in that it lacks specific methods and processes for collecting, managing, or using the information that it describes. The Framework is named after its creator John Zachman, who first developed the concept in the 1980s at IBM. It has been updated several times since.

The Zachman "Framework" is a taxonomy for organizing architectural artifacts (in other words, design documents, specifications, and models) that takes into account both whom the artifact targets (for example, business owner and builder) and what particular issue (for example, data and functionality) is being addressed.


For many years, I have argued that engineering an Enterprise is far different from building and running systems. Engineering an Enterprise requires single variable, “primitive” models, whereas building and running systems requires multiple variable, “composite” models. If you want the Enterprise to be “architected”, then the “composite” implementation (systems) models must be created from components of “primitive” engineering (architecture) models. If the “composite” implementation models are created before any “primitive” models exist, then the Enterprise will be implemented (running systems), but NOT “architected.” The problem is, for the last 60 or 70 years, those of us who come from the information community have been solely focused on building and running systems (implementations) not on engineering Enterprises (architecture). We build and use “composite” models. We don’t relate to “primitive” models because we don’t build or use “primitive” models. This presentation argues the utility and necessity of Primitive Models for Enterprise Architecture by way of introducing the Case Study Example Primitive Models.

John Zachman is the author of the “Framework for Information Systems Architecture”, which has received broad acceptance throughout the world as an integrative framework for managing change in Enterprises and in the systems that support them. He travels nationally and internationally, teaching and consulting, and has facilitated innumerable executive team planning sessions. As a conference speaker, John known for motivating messages on information issues. John Zachman is a member of the International Advisory Board of DAMA International.

CSC Catalyst

ArchiMate an open and independent modelling language for enterprise architecture USED IN TOGAF

ARCON - A Reference Architecture for Collaborative Networks - not focused on a single enterprise but rather on networks of enterprises INTERESTING!

Semantic Enterprise Architectures

Interoperability Interfaces (in process)

<table>
<thead>
<tr>
<th>General</th>
<th>Web Site</th>
<th>Best Content - Centralized</th>
<th>Best Content - Distributed</th>
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<tbody>
<tr>
<td>Government</td>
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<tr>
<td>TOGAF (5)</td>
<td>EA Principals, Inc. (7)</td>
<td>Training Materials (8)</td>
<td>Ecosystem of Frameworks (9)</td>
</tr>
<tr>
<td>SEMIC.EU (10)</td>
<td>Web Site (11)</td>
<td>EuroStats (12) and European Environment and Outlook (13)</td>
<td>Global Data Catalog and Data Services (14)</td>
</tr>
</tbody>
</table>

Key: See next slide.
Interoperability Interfaces

Key:
1. http://usgov
5. No longer operational -- see http://www.usgov.
8. http://semanticommunity.info/Build_TOGAF_in_the_Cloud
9. http://semanticommunity.info/Build_TOGAF_in_the_Cloud/Multiple_transaction_architecture-frameworks
10. Semantic Interoperability Centre Europe
11. http://www.semco.org

Semantic Technologies and Linked Data for Enterprise Data Management

Dean Allemang, Chief Scientist, TopQuadrant, and William Beauregard, Senior Principal Product Manager, Oracle USA

Monday, April 4, 2011, 08:30 AM - 04:45 PM, Level: Intermediate

PART 1: On a global scale, the Semantic Web promises a linked web of data. The same technology can be used on an enterprise scale to integrate data. But the realities of using Semantic Web standards for Enterprise Data Integration can be daunting, even to someone familiar with them. This tutorial explains how the simplicity of the RDF data model allows it to act as an interlingua between other linked data representations, providing a simple, unified paradigm for data integration. Information from any source format is translated into RDF in an information-preserving manner, without regard to specifics of its content. The resulting RDF is then merged with that of other data sources. Content-specific mappings are accomplished with SPARQL CONSTRUCT queries to identify patterns in the source data.

The tutorial will review the basics of RDF and SPARQL, emphasizing the features that make them particularly suitable for enterprise data integration. The bulk of the session will focus on data integration itself, including the following topics:

Semantic Enterprise Data Integration lifecycle
- RDF basics, and why RDF is a good representation for integrating data
- The role of the URI in sharing data
- How RDF relates to familiar data representations: spreadsheets, XML, databases, email, etc.
- RDF and unstructured data
- SPARQL as a means for linking information
- Querying the integrated data

PART 2: A Semantically-enabled Enterprise Database Management System marries the rich information discovery and data integration of semantic technologies with the mature, enterprise features of a commercial RDBMS. Applications in defense and intelligence, life sciences and clinical medicine, finance, publishing, and entertainment have RDF graphs running to tens of billions of triples, usually with associated relational, XML, text and/or spatial data. These applications require RDBMS-strength scalability, querying and security features with persistent beyond memory-scale inferencing. Learn how Oracle Database Semantic technologies has implemented scalable RDF storage, querying, and native inferencing that conforms with W3C standards and open source frameworks: RDF, RDFS, OWL 2, SPARQL, SKOS, Jena and Sesame, and SQL integration.
Dean Allemang, Chief Scientist at TopQuadrant Inc. is a frequent speaker at semantic technology conferences. He brings to this talk over 10 years experience working with customers on implementing solutions based on ontologies, with the last 5 years of his work focused on using the Semantic Web Standards. He developed the successful TopMIND Semantic Web training course, now in its fifth year with over 500 alumni. Along with his co-author Jim Hendler, Dean has just published Semantic Web for the Working Ontologist (Morgan-Kaufmann, 2008), a practitioner's guide to the Semantic Web.

Bill Beauregard is Senior Principal Product Manager for Oracle Database Semantic Technologies.

**Semantic Information Modeling for Federation (SIMF)**


Addressing the data sharing and federation problem with ontologies (Cory Casanave, Model Driven Solutions, April 12, 2011):

Our ability to share, manage, analyze, communicate and act upon information is at the foundation of the modern enterprise. Information sharing is essential for enterprise supply chains, fighting terrorism and integrating enterprise applications. Yet, this essential capability has remained difficult in information systems which are frequently isolated, stove piped and difficult to integrate. The inability of our systems to share information hampers the ability of our organizations to collaborate - for our processes, services and information resources to work together. Some estimate that more than 1/3 of our information technology budgets are consumed overcoming this "semantic friction" in our systems and that the costs to society from our failure to share and collaborate is many times the systems overhead.

Mainstream tools for information and data modeling are effective at defining a particular data model for a particular application in a particular technology to solve a particular problem. But they suffer when applied to multiple applications for multiple purposes over multiple technologies to deal with unanticipated needs and opportunities. Most mainstream modeling techniques are challenged when faced with federating independently conceived models.

Semantic technologies can serve to define and connect the meaning of data, processes and services as ontologies. Contrast this ontology approach with just static data structures identified with tags names as are the foundation of classical data modeling and data schema. Ontologies offer the potential for making a substantial contribution to solving the "data problem" though better understanding of the meaning behind the symbols we use in our data and data schema. By better understanding we are able to achieve improved data sharing and federation. This is not just theory, there are multiple proof points where ontologies are providing real solutions today, yet there is still substantial opportunity to develop and leverage these technologies further.

The tone of this message is best directed to:

* (i) Policy Makers / Strategic Decision maker ... convincing them that this is the strategic direction to go
* (ii) Technology Decision Makers (CIOs, Architects, etc.) ... convincing them that this is the approach (at a higher level)

**Overview V0.1 - 04/09/2011** (Excerpts below by Brand Niemann, April 11, 2011)

The Architecture Ecosystem SIG of the Object Management Group (OMG) is in the process of drafting an RFP focused on addressing the information federation and integration problem faced by every enterprise. This is an overview of the SIMF RFP effort.

The inability of our systems to share information hampers the ability of our organizations to collaborate – for our processes, services and information resources to work together. Some estimate that more than 1/3 of our information technology budgets are consumed overcoming this “semantic friction” in our systems and that the costs to society from our failure to share and collaborate is many times the systems overhead.
There are several technologies and paradigms directed at information sharing and mapping, yet most of these are ad-hoc or proprietary. There are few standards. None of the mainstream and standard modeling languages directly target conceptual modeling and data federation effectively. The purpose of SIMF is to put those standards in place.

The issues with data sharing can be roughly subdivided into: infrastructure, format and semantics. All three are required to share information. Infrastructure is the technology used to move data from one place to another – we can do that quite effectively today. Format is the way data is structured and we are somewhat effective at handling multiple data formats, abet via manual and point-point integrations. Semantics is what the data means, and we are not very good at all at understanding how the semantics of data in independent data sources is related. Differences in terminology, viewpoint and purpose make our inflexible data structures hard to integrate.

The theory of SIMF is that we can better relate the semantics and format of data utilizing three basic tools:

- Conceptual domain models that define the terms and concepts of a subject area - the semantics of the domain. This could also be considered a well-defined business vocabulary.
- Logical information models that define the context and structure of data for specific viewpoints and purposes, related to conceptual domain models. A common vehicle for logical information models are E/R models – but even these suffer from an intrusion of the relational technologies they represent. UML models, which can be used for the same purpose, are similarly infected by their object oriented technology roots.
- Bridging relationships between different conceptual domain models, logical models and the physical data schema that actually power our information systems. Our assumption is that the physical data models exist in our technologies, i.e. SQL, XSD and OWL. What do not exist are the bridging relationships that can be used within and between models.

The purpose of SIMF is to request submissions for a standard in support of information modeling and federation that will help unify and integrate data across different authorities, vocabularies and formats. The standards will include a model of how information is modeled, or a “meta model” which has very well defined semantics – semantics grounded in formal logic, but formal logic will not be required of those using it. The standard will also include graphical and textual languages that are user-friendly, tuned to the way people think about their information. To exchange information the standard will include a technical exchange format.

Finally, the SIMF standard must its self be integrated – so bridging relations will be required between the SIMF model and UML, E/R, RDF/S and XSD data schema. You must be able to use SIMF with these mainstream technologies.

The intended user of SIMF based tools will be anyone who defines terms and concepts; business architects, data analysts, ontologists, systems architects and data fusion experts. Essentially, anyone who defines or uses structured vocabularies or information. The same resources are also applicable to the extraction of structured information from unstructured resources, such as documents, but unstructured information is out of scope for SIMF.
The diagram above illustrates the layers of semantic information modeling for federation:

• Conceptual domain models (CDM) capture the terms and concepts of a subject area – it is a model of the domain or business. The scope of the CDM includes “controlled vocabularies” and “domain ontologies”.
• Logical information models (LIM) define information that captures concepts in a particular way – it is a model of information.
• Physical data schema (PDS) define technology specific representations of data – there can be many representations of the same logical information element or domain concept.
• Model bridging relations (MBR) define the connections between models – the orange arrows in the above diagram.

Integration of data feeds between multiple financial systems
A large financial institution has a critical need to better integrate systems in support of mortgages.

The financial institution would like to employ both semantic technologies and model driven architecture in a scalable enterprise solution. They have multiple layers of existing middleware specifications, XML schema for use in web services, event brokers, etc. Most if not all of the existing systems and technologies still need to be supported. There are dozens of enterprise systems involved and hundreds of small applications and spreadsheets.

Providing a federated view of exiting data for analytics
{todo}

The object management group (OMG) has multiple standards related to process: BPMN, UML Activities, BPDM and SPEM. Each of these was created (within OMG) as independently rooted meta models. There is no direct and standard way to share information between them, there are no concepts shared between them. This causes problems for users who would like to use OMG standards together – a case in point being the “UML Profile for DoDAF and MoDAF” (UPDM) an architectural framework standard sponsored by the U.S. DoD. A stop-gap tactic has been to define a UML profile for BPMN, but it is clear this is not the right approach long term.

In this case most of the work to identify process concepts has already been done – what is required is to “lift” those concepts into a semantic model that is the basis for relating process information. Note that an attempt was made in BPDM to do this in UML but it proved difficult – we didn’t have the right tools for the job.

The following are the mandatory requirements for SIMF submissions.
Note that additional detail on these requirements may be found in this white paper: [http://www.omgwiki.org/architecture-rated_modeling](http://www.omgwiki.org/architecture-rated_modeling)
SIMF shall specify a “kernel” model that includes a set of kernel concepts. The set of kernel concepts shall be those that are sufficient to precisely and intuitively define the kernel model and all other models in SIMF (the CDM, LIM and MBR). The kernel model shall be defined in terms of one or more existing formal languages such as common logic, “Z” or OWL. All statements made in the SIMF model should have a precise and well defined mapping to the SIMF kernel without information loss.

SIMF shall use the SIMF kernel to specify a model for conceptual domain modeling (CDM). This model shall include the set of concepts necessary to define domain concepts in support of the logical model and federation. Proof of generality shall be provided in the form of at least 4 exemplar models taken from different domains.

SIMF shall use the SIMF kernel to specify a model for logical information modeling (LIM). The LIM language shall be capable of representing data context, data structures and viewpoints as may be found in existing representative data descriptions. The LIM language shall not be bound to any particular data representation language but should have sufficient detail and precision to support production and federation of data schema with additional parameterization and bridging relations.

SIMF shall use the SIMF kernel to specify a model for Model Bridging Relations (MBR).

The SIMF language shall be explicitly validated by a representative set of examples that demonstrate its applicability to the definition, extension, federation and integration of information models. There shall be a minimum of 4 examples drawn from different domains.

SIMF must itself be federated with common forms of defining information. SIMF will define MBR models that bridge the SIMF model with existing models for E/R, XSD, UML and RDF/S. These bridges are required to capture the common semantics between SIMF and these other standards, not to capture every possible detail of them. In keeping with the SIMF philosophy, it is a federation, not a translation.

The SIMF language shall provide for modeling concepts and model content to be web addressable resources, have a unique web identity and be de-referenceable based on that identity.

The SIMF CDM language shall support semantic grounding of concepts but shall not require that all concepts are formally grounded. Where there are informal but accepted common concepts the SIMF language shall allow utilization of those informal concepts and definitions. Domain models, languages and viewpoints may have their own “private” concepts that have no wording at all.

By grounding we mean that each set of statements in SIMF should correspond to one or more statements in the formal language.

The SIMF language shall define or utilize a concrete syntax for the exchange of models in its abstract syntax and formal semantics.

The concepts that are defined in the abstract syntax and semantics for the SIMF language shall be defined using reusable language specification modules.

Ontology Driven Implementation of Semantic Services for the Enterprise Environment (ODISSEE) Workshop

April 12-13, 2011 - 8:30 a.m. - 4:30 p.m.
Alion Science and Technology Conference Center
(Navy Yard Metro Station - Green line)
1100 New Jersey Avenue, SE
Washington, DC 20003
Alion Science and Technology and the National Center for Ontological Research (NCOR, University at Buffalo) will host a two-day "Ontology Driven Implementation of Semantic Services for the Enterprise Environment (ODISSEE)" Workshop. ODISSEE aims to foster awareness of and collaboration between disparate information-sharing efforts across the US Government. The workshop will feature individual presentations on information-sharing development, as well as panel sessions on ontology and data vocabulary. This workshop supports the Joint Planning and Development Office (JPDO) information sharing initiatives. Information sharing is at the heart of the transformation from the current state of the National Airspace System (NAS) to NextGen capabilities in 2025 in areas such as unmanned aircraft systems, integrated surveillance and weather.

WORKSHOP OBJECTIVES:
Identify and catalogue the various semantic technology efforts across the Federal government.

- Identify, evaluate, and catalogue standard information-exchange models, such as Universal Core (UCore) and National Information Exchange Model (NIEM) and semantic models of common domains, including time, geography, and events.
- Explore the use of ontologies to enable information exchanges within a service-oriented architecture (SOA), improve discoverability of services, and align disparate data standards and message models.
- Coordinate ontology development across diverse Communities of Interest (COIs) to ensure extensibility, interoperability, and reusability.

KEYNOTE SPEAKERS:
Dr. Mark Maybury (Chief Scientist, US Air Force)
Dennis Wisnosky (Chief Architect & Chief Technical Officer, Business Mission Area, Office of the Deputy Chief Management Officer, US Department of Defense)

WHO SHOULD ATTEND?
Ontologists
Data Vocabulary Specialists
Information Architects
Service Developers
Other Information Technology Practitioners

REGISTER TODAY
Registration is free and open to the public.
To register, please write to: semantics@alionscience.com

Agenda
Current as of 4/1/2011 (PDF)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day One: April 12, 2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session/Activity</td>
<td>Presenter</td>
</tr>
<tr>
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<td>----------------------------</td>
</tr>
<tr>
<td>8:30 a.m. – 8:45 a.m.</td>
<td>Introductory Remarks</td>
<td>Patricia Craighill, Joint Planning and Development Office, Assistant Director - Defense</td>
</tr>
<tr>
<td>8:45 a.m. – 9:00 a.m.</td>
<td>ODISSEE Overview</td>
<td>Beth Huffer, Concept Solutions</td>
</tr>
<tr>
<td>9:00 a.m. – 10:00 a.m.</td>
<td>Keynote Presentation</td>
<td>Mr. Dennis Wisnosky, Chief Architect &amp; Chief Technical Officer, Business Mission Area, Office of the Deputy Chief Management Officer, US Department of Defense. <a href="#">Slides</a></td>
</tr>
<tr>
<td>10:00 a.m. – 10:15 a.m.</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:15 a.m. – 11:45 a.m.</td>
<td>SESSION I: Putting NextGen Ontologies to Work</td>
<td>Lowell Vizenor, Alion Science and Technology</td>
</tr>
<tr>
<td>10:15 a.m. – 11:45 a.m.</td>
<td>SESSION I: An Overview of the NextGen Network-Enabled Weather (NNEW) Ontology</td>
<td>Kajal Claypool, MIT Lincoln Labs</td>
</tr>
<tr>
<td>10:15 a.m. – 11:45 a.m.</td>
<td>SESSION I: The Emerging Ontology and Semantics Tool Landscape</td>
<td>Leo Obrst, Mitre</td>
</tr>
<tr>
<td>11:45 a.m. – 12:45 p.m.</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>12:45 p.m. – 2:15 p.m.</td>
<td>SESSION II: An Update on Data.gov and W3C Government Linked Data Working Group Efforts</td>
<td>George Thomas, US Department of Health and Human Services</td>
</tr>
<tr>
<td>12:45 p.m. – 2:15 p.m.</td>
<td>SESSION II: Large-Scale Data Analysis – “The Missing Gap”</td>
<td>Mark Guiton, Cray</td>
</tr>
<tr>
<td>12:45 p.m. – 2:15 p.m.</td>
<td>SESSION II: Two Birds with One Stone: A Model of Access Control and Provenance for Semantic Database Systems</td>
<td>Bill Andersen, Highfleet</td>
</tr>
<tr>
<td>2:15 p.m. – 2:30 p.m.</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>2:30 p.m. – 4:00 p.m.</td>
<td>SESSION III: GeoSPARQL: Using the SPARQL Query Language for Geospatial Information</td>
<td>Dave Kolas, BBN</td>
</tr>
<tr>
<td>2:30 p.m. – 4:00 p.m.</td>
<td>SESSION III: Update on Semantic Activities within the Open Geospatial Consortium</td>
<td>Nadine Alameh, Open Geospatial Consortium</td>
</tr>
<tr>
<td>2:30 p.m. – 4:00 p.m.</td>
<td>SESSION III: Valuing the Role of Semantic Web Technologies - A Ten Year Personal Reflection</td>
<td>Ralph Hodgson, TopQuadrant</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker/Details</td>
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<tr>
<td>8:00 a.m. – 8:30 a.m.</td>
<td>Introduction</td>
<td>TBD</td>
</tr>
<tr>
<td>8:30 a.m. – 8:45 a.m.</td>
<td>Coordinated Development of Ontologies Across Diverse Communities of Interest</td>
<td>Barry Smith, National Center for Ontological Research (University at Buffalo)</td>
</tr>
<tr>
<td>9:45 a.m. – 10:00 a.m.</td>
<td>Break</td>
<td>TBD</td>
</tr>
<tr>
<td>10:00 a.m. – Noon</td>
<td>SESSION IV</td>
<td>Strategies Toward a Standard Upper Ontology</td>
</tr>
<tr>
<td>10:00 a.m. – Noon</td>
<td>SESSION IV</td>
<td>UCore-SL: An Overview and Some Suggested Improvements</td>
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<td>10:00 a.m. – Noon</td>
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<td>UCore-SL in Navy Research and Development</td>
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<tr>
<td>10:00 a.m. – Noon</td>
<td>SESSION IV</td>
<td>A Repeatable Process for Ontology Creation. Slides</td>
</tr>
<tr>
<td>Noon – 1:00 p.m.</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1:00 p.m. – 2:00 p.m.</td>
<td>Keynote Presentation – Metadata Matters: Ontology and Autonomy</td>
<td>Mark Maybury, US Air Force Chief Scientist</td>
</tr>
<tr>
<td>2:00 p.m. – 2:15 p.m.</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>2:15 p.m. – 3:45 p.m.</td>
<td>SESSION V</td>
<td>A Case Study in Applying Ontologies to Service-Oriented Architecture</td>
</tr>
<tr>
<td>2:15 p.m. – 3:45 p.m.</td>
<td>SESSION V</td>
<td>An Overview of the NetEnabled Test Environment (NETE)</td>
</tr>
<tr>
<td>3:45 p.m. – 4:00 p.m.</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>4:00 p.m. – 4:30 p.m.</td>
<td>Concluding Remarks</td>
<td>TBD</td>
</tr>
</tbody>
</table>
Abstracts

Barry Smith

Coordinated Development of Ontologies Across Diverse Communities of Interest

Ontologies are created to serve multiple goals. We focus here on the use of ontologies to counteract the many tendencies which lead to the formation of data silos in large organizations. Data silos result where data is coded in ad hoc and non-interoperable ways. Ontologies have been successfully used to counteract data silo formation above all in biology and biomedicine. There, however, the very success of the ontology-based approach initially led to the creation of ever new ontologies, thereby resurrecting the very silo problems which ontologies were designed to counteract on the first place, but now in the form of "semantic silos". To avoid this outcome, a strategy has been developed to ensure the coordination of ontology development in a way that will prospectively constrain the ontologies that are being constructed and at the same time maximize their mutual consistency. We describe this strategy and outline its benefits above all in terms of cost effectiveness and generalizability. See: http://www.nature.com/nbt/journal/v25/n11/pdf/nbt1346.pdf.

The attitudes of Tim Berners-Lee, which are in favour of freedom and anarchy, and creativity, and all those nice things, mitigate against the coordination which is necessary to make good scientific ontology work - in a way good science works. See Where is the knowledge we have lost in data?

Christopher Kirkos

UCore-SL in Navy Research and Development

Dave Kolas

GeoSPARQL: Using the SPARQL Query Language for Geospatial Information

Dave McComb

A Case Study in Applying Ontologies to Service-Oriented Architecture

James Schoening

Strategies Toward a Standard Upper Ontology

Kajal Claypool

An Overview of the NextGen Network-Enabled Weather (NNEW) Ontology

Leo Obrst

The Emerging Ontology and Semantics Tool Landscape
Lowell Vizenor

Putting NextGen Ontologies to Work

The Net-Centric Operations division (NCOD) of the Joint Planning and Development Office (JPDO) is using Ontology (the explicit formal representations of the terms in a domain and the relations between them) and Semantic Web technology to enhance service discoverability, interoperability and understandability through the use of semanti, machine-interpretable service descriptions. The NextGen ontologies will be used to specify a precise and reusable terminology that facilitates information sharing across multiple agencies and communities through the precise description of the intended meaning of service. This presentation will discuss the overall approach to the development of NextGen Community of Interest (COI) ontologies, applications of these ontologies and, finally, strategies to coordinate and govern COI-driven, ontology development.

UCore-SL: An Overview and Some Suggested Improvements

The Universal Core (UCors) is a central element of the National Information Sharing Strategy that is supported by multiple U.S. Federal Government Departments, by the intelligence community, and by a number of other national and international institutions. The goal of the UCore initiative is to foster information sharing by means of XML schema providing consensus representations for four groups of universally understood terms under the headings who, what, when, and where. UCore Semantic Layer (UCore SL) is a project to create an ontology-based supporting layer for UCore, entitled 'Universal Core Semantic Layer' (UCore-SL), and describe how UCore-SL can be applied to further UCore’s information sharing goals. This presentation will provide an overview of UCore-SL and recommend a number of structural improvements to UCore-SL.

Lt Col Shawn O’Day

USAF Delivery of Information within the SDDP Model

Mark Guiton

Large-Scale Data Analysis – “The Missing Gap”

The exponential growth of large-scale data sets and the proliferation of data silos is presenting a growing data analysis challenge to organizations around the world. Recently, semantic technologies have made significant strides towards making large-scale data integration, integrated query solutions and other complex data analytics more tractable. However, this new capability is pushing the limits of current hardware technology to such an extent that many analytical problems cannot perform on today’s architectures at scale. For many large-scale semantic knowledgebase applications, particularly ones that involve complex queries and/or complex inferencing, the lack of performance becomes a critical issue. This presentation will describe an alternative hardware architecture designed for these classes of problems – the Cray XMT. The Cray XMT is a highly scalable large shared memory system with characteristics that also include: massive multithreading, fine grained word level synchronization and memory latency hiding mechanisms.
Ralph Hodgson

Valuing the Role of Semantic Web Technologies - A Ten Year Personal Reflection

Since 2001, in government projects, I have faced the questions:

"What does the use of semantic technology mean to the users of data?"

"Can semantic web technologies really 'connect the dots' and break down data silos?"

"What does it mean to link data?"

"How do Ontologies help data interoperability?"

"How can RDF and OWL co-exist with XML?"

"What has to happen in an organization for semantic web technologies to be put to work effectively?"

Using examples from government organizations, I will look back and reflect on how these questions were addressed. In 2003, at GSA, we created the FEA ontologies. My experiences have also been in situations where data has been mission critical, with challenges to data aggregation and interoperability. Since 2002, at NASA, we have worked on the use of semantic technology in data architecture, systems engineering, simulation and modeling, and telemetry and commanding for space systems interoperability in support of the Manned Space Missions. At the Netherlands Ministry of Justice, our work was to use semantic technology of a model-based approach to generating component XML Schemas compliant with UN/CEFACT Core Components Technical Specifications (CCTS). The oeGov.us project was a personal effort to ontologize the structure of the US Government. All these efforts provide lessons on "how to put ontologies to work". At this workshop I look forward to sharing predictions and plans for the next 10 years.

William Mandrick

A Repeatable Process for Ontology Creation

Tweets

Search results for #ODISSEE

Brand Niemann

bniemanns Brand Niemann

#ODISSEE
8 hours ago
Ralph Hodgson

ralphq Ralph Hodgson

Other things of the non-semantic kind discovered at #ODISSEE - Frame Fractals Art - http://www.fractalsinmotion.com/ 13 hours ago

Simon Spero

sesunceu Simon Spero

13 Apr

AJ Vizedom

ajvizedom AJ Vizedom

@stephanet They aren't up yet, but have been promised. I'll tweet the link if I get it and Lowell hasn't done so himself. #ODISSEE
13 Apr

stephanef

stephanef stephanef

Where can we have access to the slides of #ODISSEE ?
13 Apr

AJ Vizedom

ajvizedom AJ Vizedom

Now: wrap-up discussion for #ODISSEE. I think most folks have hit overload, but there are many loose threads hanging... to be cont'd?
13 Apr
Now up: Germaine Forbes, Beth Huffer on the JPDO Net-Enabled Test Environment. Another talk about actual ongoing work. Hurrah! #ODISSEE
13 Apr

During the talk most based on a real-world, ongoing, mature effort, the eager advocate for One Ontology left, rather than listened. #ODISSEE
13 Apr

Serious sprint by Alan Belasco to get through it all! Upside: shows how relatively far ahead USAF Enterprise #Ontology work is. #ODISSEE
13 Apr

So much packed into this presentation. I wonder whether the substance is clear to folks not familiar with USAF #ontology efforts? #ODISSEE
13 Apr

Now up: Lt Col Shawn O'Day and Dr. Alan Belasco, talking about USAF information delivery process in which #ontology is a key part. #ODISSEE
13 Apr
Dr. Maybury's talk has lots of good ideas, insights. But some distance between this vision and ground view of AF #ontology efforts! #ODISSEE 13 Apr

Maybury: challenges of AF data interop/integration - need automation (scale, etc.), real-time, cross-org... #ontology required. #ODISSEE 13 Apr

RT to #ODISSEE Post-lunch restart with Keynote by Dr. Mark Maybury, Chief Scientist, USAF. Topic: "Metadata Matters: #Ontology and Autonomy" 13 Apr

Dr. Maybury giving a quick reprise of DoD Net-Centric Data Strategy and role of Metadata in it (not quite to #ontology yet...) #ODISSEE 13 Apr

LTC Mandrick has too many good points, examples to tweet! Hoping that his presentation is provided for later reference. #ODISSEE #ontology 13 Apr
LTC Mandrick on scoping #ontology: depends on customer needs. Yes, & we can respect that * & * support extending & integrating later #ODISSEE
13 Apr

LTC Mandrick: seeing OO of the OODA loop, terrain models, as #ontology creation. Ah, the memories (of ontologizing IPB, etc.)! #ODISSEE
13 Apr

Next up: LTC Bill Mandrick talks about "A Repeatable Process for #Ontology Creation" Interested to see what he's got! #ODISSEE
13 Apr

Good: UCore-SL extensions that Navy R&D needed & made. Add how needs arose, get real contribution toward #ontology best practices. #ODISSEE
13 Apr

Where to get UCore-SL without a CAC: https://ucore.gov (provided by current speaker, Christopher Kirkos) #ODISSEE #ontology
13 Apr
Next up: an ongoing efforts session: UCore-SL in Navy R&D #ODISSEE #ontology
13 Apr

Comment I meant to get to but didn't: shared #ontology != shared vocabulary. Many DoD frustrations come from focus on latter. #ODISSEE
13 Apr

Now on to Lowell Vizenor, talking about UCore SL. #ODISSEE #ontology
13 Apr

Beth Huffer: the value of shared #ontology in a complex integration project is in mediation/integration, not imposition on data. +1 #ODISSEE
13 Apr

I wish more of #ODISSEE were actual discussion of actual, ongoing projects. So far, the other talks have not been very useful in context.
13 Apr
Next up: Jim Schoening, talking about Standard Upper #Ontology#ODISSEE 13 Apr

A last critique: An #ontology, like a scientific model, often must be realist *and* take a particular view in order to be usable. #ODISSEE 13 Apr

This shows in #domain naivete, and in slippage from examples of badly done mapping to conclusions about all mapping. #ODISSEE#ontology 13 Apr

There's a tendency among those who have worked in a few domains & use cases to view the rest of the world as only equally complex. #ODISSEE 13 Apr

For example, Barry says that we need only one weather #ontology. But why insist that weather is a sufficiently unified domain? #ODISSEE 13 Apr
Garry Merrill pays attention to the man behind the curtain [http://bit.ly/gHjnp1](http://bit.ly/gHjnp1) #ontology #ODISSEE

AJ Vizedom

Barry Smith said earlier, "One #Ontology per Domain." Later he noted that the question arises: "But what is a Domain?" No answer... #ODISSEE

AJ Vizedom

... But between Barry Smith's critical observations & his prescribed single-#ontology solution are many unsupported leaps. #ODISSEE

AJ Vizedom

Barry Smith is correct that there much bad #ontology, atrocious mapping, and untrained ontology developers creating OWL silos... #ODISSEE

AJ Vizedom

#ODISSEE Day 2. Barry Smith arguing his One #Ontology paradigm: semantic interoperability requires 1 upper ontology & 1 ontology per domain. #ODISSEE

http://semanticommunity.info/Build_TOGAF_in_the_Cloud

Updated: Sat, 19 Sep 2015 03:49:20 GMT

Powered by mindtouch
Simon Spero

sesuncedu Simon Spero

#ODISSEE Barry Smith jumping back and forth between controlled vocabularies and ontologies without signalling
13 Apr

AJ Vizedom

ajvizedom AJ Vizedom

Current spkr: history, last 10 yrs of sem tech, in which he seems to claim first for many things actually done <= 10 yrs earlier! #ODISSEE
12 Apr

Daniel Yacob

ethiopic Daniel Yacob

"Some things have to be believed to be seen" @ralphtq at#ODISSEE
12 Apr

AJ Vizedom

ajvizedom AJ Vizedom

GEOSS use case: cross-community & cross-domain semantic mediation of earth observation data - my kind of fun & hard! #ODISSEE #ontology
12 Apr

AJ Vizedom

ajvizedom AJ Vizedom

SPARQL used to get at implicit knowledge, given OWL limitations. Clever, but loading KR into query lang still a worry. #ODISSEE #ontology
12 Apr
GeoSPARQL defined in RDF/OWL/SPARQL -- another case of partial content KR in SPARQL, though more self-aware than avg. 

... and wouldn't ya know, HIGHFLEET talk halted by computer failure. Skipped ahead to BBN GeoSPARQL talk.

Now up: Bill Anderson of HIGHFLEET, talking about access control, provenance. Started out great re: what metadata is and isn't.

Still, so many critical efforts lacking staff familiar with lesson learned. Some good stuff, too, but some "headdesk".

These were interesting. Definite progress from old decontextualized KR, or alignment as top-first mapping, views.
First presentations this morning related to JPDO and DoD DCMO projects, challenges, current approaches in Enterprise Semantic Svcs. #ODISSEE
12 Apr

We need these events. Cyclic pain, but more connections between semantic newcomers and old hands, lessons learned! #ODISSEE#linkeddata
12 Apr

Happy that #ODISSEE and similar events are happening - bringing together folks working Big Semantic Environments & Implementations...
12 Apr

For the puzzled: #ODISSEE = http://bit.ly/fVPV5n
12 Apr

At #ODISSEE. A needed workshop, but also a reminder: road to anywhere littered with reinvented square wheels.
12 Apr
At #ODISSEE
12 Apr

Older Tweet results for are unavailable.

**Emails**

Peter and All, I think your Summit would benefit from hearing a report from this meeting that represents an activity that has obviously "made the case for ontology" - see [http://ncor.buffalo.edu/ODISSEE/](http://ncor.buffalo.edu/ODISSEE/)

Yes, indeed! BarrySmith (who championed ODISSEE) was the original proponent of this year's OntologySummit2011 theme. Several of those who were there at ODISSEE will be at the ontologySummit 2011 Symposium next week -- LeoObrst co-chairs the Symposium (with RamSriram of NIST), and both DennisWisnosky, GeorgeThomas and BillAndersen (who were speakers at ODISSEE, LeoObrst too, actually) are among the invited panelists for the Tue 2011.04.19 symposium (day-2) program. I am really looking forward to it. See you then. Thanks & regards. =ppy

Peter, Thank you. Interestingly I saw only one of the people you mentioned in attendance (George Thomas) to hear Barry Smith's excellent talk based on [http://www.nature.com/nbt/journal/v25/n11/pdf/nbt1346.pdf](http://www.nature.com/nbt/journal/v25/n11/pdf/nbt1346.pdf). I thought Barry made some critical points that are not reflected in your communiqué that I putting in my slides on this for my upcoming SEMIC.EU keynote next month. Brand

It's nowhere near a report, as Brand put it, but live-tweets from the workshop, by me and a few others, can be found under the #ODISSEE hashtag twitter stream. Lowell Vizenor and Beth Huffer have promised to make sure the presentations are made available. Amanda

I saved the Tweets before they disappear so you can get some of the essence of ODISSEE. Brand SEE ABOVE

**The Open Group Conference London Panel Using the Cloud**

Track Speaker, Wednesday, 11 May 2011, 4.45 - 5.30 pm

Build TOGAF, UDEF, and Other Standards in the Cloud The Open Group has begun to explore how to address next generation semantic interoperability needs across different existing information exchange standards, vocabularies, and web resources (e.g. TOGAF, SOA and Cloud Computing, UCore 2.0, DISA Metadata Registry, Air Force Vocab OneSource). This presentation will show progress in achieving Semantic Interoperability across these different existing information exchange standards, vocabularies, and web resources and how Cloud Computing tools can be very useful in doing that work.

How I can help DoD EA by integrating DoDOF, TOGAF, and the FEA training and real-world applications in the cloud and with the cloud. This is what I can do with Spotfire and the Wiki! I have been working with Walt Okon and others on the new Emerging Technology SIG activities to more closely align the DoDAF and FEA.

http://semanticommunity.info/Build_TOGAF_in_the_Cloud

Updated: Sat, 19 Sep 2015 03:49:20 GMT

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The Open Group Conference London UDEF Deployment and Demo

UDEF project will plan to meet on the Monday afternoon (9 May) and the Tuesday afternoon (10 May) in London. In addition, the UDEF project is invited to join the QLM team during the QLM meeting on Wednesday (11 May).

We are aiming to create a demonstration of how the UDEF can be deployed for business benefit. We will be holding a workshop during The Open Group conference, which will be held in London in the week of May 9, to develop this demonstration. This is an invitation to all UDEF Interested Parties to participate.

The demonstration will show how the UDEF can enable comparative analysis of and conversion between data in different formats. We will create it by the following five steps.

1. Examine a set of data formats that convey similar information using different terminology.

2. Produce a draft update to the UDEF plus a draft Satellite Data Element Framework (SDEF) for the data element concepts used in the data formats.

3. Produce versions of the data format definitions tagged with UDEF IDs.

4. Produce comparative analyses, expressed in Dutch, English, and French, of the data format definitions.

5. Demonstrate automatic conversion between messages in the different data formats.

We are currently considering two possible sets of data formats for use in the demonstration:

(a) Quantum Lifecycle Management (QLM) messages based on two different standards,

   XML schema for one and ISO 10303 (STEP) for the other.

(b) Subsets of two standard vocabularies (NIEM and U-Core2.0) that currently support different organizations of the US government.

We are looking to use technology as part of the demonstration. If your company has products that can use the UDEF to perform all or part of the steps above, this is an opportunity to demonstrate their use and value.

We will be starting on the steps described above within the next few weeks, with the aim of having as much agreed as possible before the London meeting. If you wish to be involved in the demonstration, you will need to participate in these discussions. Please let me know in reply to this e-mail if you are interested in participating, or if you have any questions about the demonstration, or suggestions for improving it.


This white paper is to be the foundation for further development of distributed UDEF which (among others) is a requirement for the following parallel activities of The Open Group:

- QLM workgroup needs distributed UDEF for semantic interoperability
- Jericho forum needs extended UDEF for federated identity management interoperability
TOGAF next version will need distributed UDEF for Enterprise Interoperability


Technology, Engineering & Innovation in the U.S. Department of Defense

Dennis Wisnosky, Chief Technical Officer and Chief Architect, Business Mission Area, U.S. Department of Defense

Tuesday, June 7, 2011, 08:30 AM - 10:00 AM, Level: Business / Non-Technical, Case Study

The U.S. Department of Defense is the largest and most complex organization in the world. It’s reach is truly galactic, and with 4 million active employees and tens of millions of retirees and dependents in all parts of the world, no organization is more of a management challenge. Decades of piecemeal implementation of IT systems and services has resulted in an unsustainable cost structure and notable failures to deliver needed business capabilities. It is clear that business as usual is not a sensible way ahead. Could semantic technologies, notably data constructed with RDF OWL, and capabilities delivered as services within a SOA be a new paradigm for business intelligence and business applications? This talk will explore these issues, and the Department’s Proof of Delivery (PoD) projects.

Mr. Dennis Wisnosky is the DoD Business Mission Area Chief Technical Officer and Chief Architect. He is responsible for the BMA Federation Strategy and Roadmap. In 2007 and 2008, the vision for the Department's Business Operating Environment (BOE) was articulated in the BMA Federation Strategy and Roadmap. This vision was for business operations to be service enabled through the use of SOA, standards, federated and understandable architectures and common vocabularies. The BOE vision would later influence our present day DCMO and DoD CIO policies and Services strategies. Through policy, governance and partnership with the CIO, DISA and the Military Departments, this vision is taking shape. Next we must bring it all together by joining the vision for the BOE with the future promise of the Federal and DoD Cloud enabled by the strengths of semantic technology to support data integration. DoD BMA Semantic Technology efforts include: Data Integration, Semantic Mediation, Data Virtualization, Common Vocabulary, Enterprise Standards, and Cloud Computing.

Source: SemTech 2011 Abstract

The IDEAS Group Ontology

Ian Bailey, Managing Director, Model Futures

Wednesday, June 8, 2011, 11:50 AM - 12:15 PM, Level: Business / Non-Technical

In 2005, it was recognized that the defense departments of various nations had each developed their own architecture frameworks. These frameworks specified standard ways to describe an enterprise - e.g. process models, org charts, system structures, network diagrams, state models, etc.

All the national frameworks served similar purposes but used different terminology and and metamodels. This was presenting a barrier to the nations sharing their architectures. The increase in the number of coalition operations (including various peacekeeping operations) combined with the increase in the complexity of the systems used by each of the nations meant that there was a real need to share enterprise and system information between coalition partners. The IDEAS Group was set up to tackle this problem and develop a common upper ontology that all the nations could adapt and specialize for their own purpose. The long term goal being that once all nations were using the same foundation it would be easier to eventually migrate to just one international framework.

The IDEAS Foundation (high level upper ontology) was published in 2008 and has since been adopted as the basis of the DOD's Architecture Framework Meta Model. The Swedish Armed Forces have also begun work to migrate the UK MOD's metamodel to the IDEAS Foundation.
This presentation outlines:

* The need for coalition interoperability of architectures - e.g. each nation understanding each others org structures, processes, communications laydowns, etc.
* Current status of IDEAS, and the projects that have used it
* A brief overview of the methodology used to re-engineer the national frameworks into an ontology
* Use of modelling tools in a community which had little prior experience of ontology development
* Lessons learned in collaborative, international ontology development
* The benefits already realized and the future for IDEAS and the national frameworks

Ian Bailey is an expert in Enterprise Architecture. He has worked a number of large-scale enterprise systems projects over an 18yr career in systems integration. He has been technical lead for a number of integration standards including ISO10303 (parts 14 and 233) and the UK MOD Architecture Framework He lives in London and has a first degree in Engineering and Management and a PhD in systems integration and data mapping.

Source: SemTech 2011 Abstract

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**SICoP 2011: Transforming Government through Innovation with Semantic Technologies**

Mills Davis, Founder and Managing Director, Project10X, [http://www.project10x.com](http://www.project10x.com)

Tuesday, June 7, 2011, 07:30 AM - 08:20 AM, Level: Case Study DRAFT [Slides](#)

We are restarting the Semantic Interoperability Community of Practice (by popular demand) and are working on a series of meetings/workshops in 2011 in collaboration with a numbers of groups and individuals based on three things: (1) Mapping Vivek Kundra's 25 point plan to CoPs and individuals; (2) The new OASIS Technical Committee on Transformational Government; and (3) Our very successful SICoP meeting in 2009. See [From E-Government to Transformational Government Wiki page and slides](#).

To seed this activity we have prepared a series of Data Science Products for Social Business Intelligence with Open Government Data Using Semantics that will be demonstrated along with highlights from the meetings we have conducted so far.

The ideas we would like to explore with you include how best we might: (1) Harvest and package content from the sorts of meetings & demonstrations we have done and are planning for dissemination through media channels -- publications, digital, events, etc.; and (2) Collaborate together to develop and conduct a series of educational events that would reach the right audiences as well as benefit all parties involved.


[http://semanticommunity.info/Build_TOGAF_in_the_Cloud](http://semanticommunity.info/Build_TOGAF_in_the_Cloud)

Updated: Sat, 19 Sep 2015 03:49:20 GMT
Powered by [mindtouch](http://mindtouch.us)
Mills Davis is the founder and managing director of Project10X, specializing in industry research and strategic programs. Mills consults with technology manufacturers, global 2000 corporations, and government agencies on next-wave semantic technologies and solutions. Mills served as lead for the Federal CIO council’s Semantic Interoperability Community of Practice (SICoP) research into the business value of semantic technologies. Also, he is a founding member of the AIIM Interoperable enterprise content management (iECM) working group, and a founding member of the National Center for Ontology Research (NCOR).

Source: SemTech 2011 Abstract

DoD EA Conference 2010: DoD Enterprise Architecture and Interoperability Approach

Jayson Durham; SPAWARSYSCEN-PACIFIC (PDF).

Also see Air Force One Source in the Cloud.

Semantic Interoperability for Enterprise Engineering - Bridging the Chasms

Last Edit 110310-1100

An SDIEEE Workshop on Semantic Interoperability, July 26-28, 2011

Historic NTC Promenade Facilities (Liberty Station)

Purpose: Provide a forum to discuss the higher levels of interoperability within and across domains.

Objective: Through inter-disciplinary dialog, address how to "bridge the chasms" and enable interoperability (e.g. service-level agreements) within and across globally-diverse enterprises and associated disciplines.

Motivation: The legacies and cultures of separate domains and disciplines (aka "stovepipes") hinder achieving the level of interoperability required for multi-enterprise operations. An initial step towards addressing these challenges requires methods and enterprise services for actively managing the mitigation of otherwise separate concepts, nomenclature, terminology, and jargon. In other words, we consider semantic interoperability to be a key technology enabler for multi-disciplinary integrated product team effectiveness.

Focus: New Enterprise Engineering (E2) processes and methodologies are emerging that leverage advances in Model-Based-Systems-Engineering (MBSE), System-Of-Systems-Engineering (SOSE), Service Oriented Architectures (SOA), and other practices to help integrate and federate the broad spectrum of interdependent workflows (i.e. business processes, activities, and services) necessary for enterprises to better compete within the globally interconnected ecosystem of such entities. This year's workshop focuses on leveraging organizational leadership and technical experts from among fourteen E2 disciplines that we consider critical for implementing and sustaining a more mature globally-interdependent ecosystem of Enterprise Architecture (EA) frameworks.

Format: Key technology disciplines have been identified for facilitating end-to-end E2 lifecycle support activities. Keynote speakers and other experts have been invited to participate in panel sessions and "breakout mini-workshops." Panel participants each provide a 15-30 minute informational brief to provide background and context for their respective area-of-concern. Throughout the panel session, the session topic is addressed from their respective context, domain, and focus of concern. The last 30-45 minutes of the panel session are dedicated to questions, answers, and dialog between panelists and workshop participants/attendees.

http://semanticommunity.info/Build_TOGAF_in_the_Cloud
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The afternoon breakout sessions are “mini-workshops” that provide an opportunity for similar multi-disciplinary dialog across interdependent technical disciplines within the context of an overarching organizational construct (e.g. University, FFRDC, Government, or Industry).

For all the breakouts, the following topical domains are of particular interest due to their critical role in facilitating a semantically-enabled E2 capability: (1) Semantic Services and Knowledge Management (KM); (2) Policy Management and Governance; (3) Data Architecture, Strategy, Management, and Models; (4) Business Process Management (BPM); (5) Service Oriented Architecture (SOA); (6) Enterprise Architecture (EA); (7) Model-Based Systems Engineering (MBSE); (8) System of Systems Engineering (SOSE); (9) Distributed Modeling & Simulation (M&S); (10) Virtual/Augmented Reality M&S Environments; (11) Robotics & Automation; (12) Human-Systems Integration; (13) Experimentation & Training; (14) Certification & Validation

Expected Outcome: For enabling semantic interoperability, the goal of each panel and breakout session is to identify candidate requirements (i.e., needs, use-cases, scenarios), potential enablers (e.g., process threads, SOPs, recommended capabilities), and barriers to success (e.g., regulatory/statutory impediments, technological limitations, lack of validated experimentation repositories). The resulting feedback and recommendations will be incorporated in a workshop outbrief and summary report with prioritized recommendations for the way ahead.

**Tuesday 26 July 2011**

0630-0730 Registration and Pastry Breakfast (Sponsored by …)
0730-0745 Conference Opens with Mar Vista NJROTC Color Guard
0745-0830 Plenary Presentation: Mr. Dennis Wisnosky, DOD BMA CTO
0830-1200 Panel Session: “Semantic Services for Enterprise Engineering (E2)”
   Note: Morning Exhibitor Break from 1000-1030
   Chair: Mr. Steve Roa (SSC Pacific, E2C Project Lead)
   Panel: “In Progress”
   1200-1300 Box Lunch
   1230-1300 Lunchtime Speaker: Mr. Gary Wang (SPAWAR CIO)
1300-1730 Breakout Sessions: “Semantic Interoperability: High-Priority Needs and Recommended Capabilities”
   Note: Afternoon Exhibitor Break from 1430-1515

Academia Breakout Session: NPS (Chair: Prof. Don Brutzman)
Location: Command Center (Rm 1)
Speakers/Topics: “In Progress”

FFRDC Breakout Session: MITRE (Chair: Dr. Deborah Goldsmith - TBD)
Location: Command Center (Rm 2)
Speakers/Topics: “In Progress”

Government Breakout Session: SSC/SPAWAR (Chair: Jayson Durham)
Location: Event Center (Main Room)
Speakers/Topics: “In Progress”

Society Breakout Session: SDIEEE (Chair: TBD)
Chapter Hosts: Engineering Management Society Chapter
Communications Society Chapter
Reliability Society Chapter
Location: Command Center (Rm 3)
Speakers/Topics: “In Progress”

1730-2030 No Host Social/Dinner
Wednesday 27 July 2011

0700-0730 Bagel Breakfast (Sponsored by …)
0730-0815 Update from Breakout Sessions: Breakout Session Chairs
0815-0900 Plenary Presentation: Dr. Douglas Schmidt, CMU SEI CTO
0900-1200 Panel Session: “Semantically Interoperable SOA-Based E2 Implementations”
Note: Morning Exhibitor Break from 1000-1030
Chair: TBD
Panel: “In Progress”

1200-1300 Box Lunch
1230-1300 Lunchtime Speaker: TBD
1300-1730 Breakout Sessions: “Semantic Interoperability: High-Priority Needs and Recommended Capabilities”
Note: Afternoon Exhibitor Break from 1430-1515

FFRDC Breakout Session: CMU-SEI (Chair: Mr. William Anderson)
Session Focus: Mobile Computing, Data to the Tactical Edge
Location: Command Center (Rm 1)
Speakers/Topics: “In Progress”

Industry Breakout Session (Chair: Mr. Ron Schuldt, UDEF-IT, LLC)
Location: Command Center (Rm 2)
Speakers/Topics: “In Progress”

Government Interagency Session (Chair: Mr. Jerome Conrad, DHS)
Location: Event Center (Main Room)
Speakers/Topics: “In Progress”

Society Breakout Session: SDIEEE (Chair: TBD)
Chapter Hosts: Computational Intelligence Society Chapter
Robotics and Automation Society Chapter
Computer Society Chapter
Location: Command Center (Rm 3)
Speakers/Topics: “In Progress”

Thursday 28 July 2011

0700-0745 Bagel Breakfast (Sponsored by …)
0730-0815 Update from Breakout Sessions: Breakout Session Chairs
0815-0900 Plenary Presentation: TBD
0900-1145 Panel Session: “The DOTMLPF Solution”
Note: DOTMLPF – Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities
Note: Morning Exhibitor Break from 1000-1030
Chair: TBD
Panel: “In Progress”

1145-1230 Box Lunch
1230-1300 Lunchtime Speaker: TBD
1300-1630 Breakout Sessions: “Semantic Interoperability: High-Priority Needs and Recommended Capabilities”
Note: Afternoon Exhibitor Break from 1430-1515
University ONR/ASEE Session: (Chair: Prof. Liford McLauchlan, Texas A&M)
Location: Event Center (Main Room)
Speakers/Topics: “In Progress”
Topical Breakout Session: Part I (Chair: Mr. James Smith, CMU SEI)
Location: Command Center (Rm 1)
Speakers/Topics: “In Progress”

Topical Breakout Session: Part II (Chair: TBD)
Location: Command Center (Rm 2)
Speakers/Topics: “In Progress”

Society Breakout Session: SDIEEE (Chair: Dr. Kathleen Kramer - TBD)
Chapter Hosts: Oceanic Engineering Society Chapter
Aerospace and Electronic Systems Society Chapter
Engineering in Medicine and Biology Society Chapter
Location: Command Center (Rm 3)
Speakers/Topics: “In Progress”

1630-1730 Workshop Outbrief: Mr. Jayson Durham and Mr. Jeffrey Wallace, Workshop Co-Chairs

Potential Additional Activities
Pre-Workshop Site Tours on Monday:
(1) SSC Pacific, PAO (1300-1500)
Requires Approved Visit Request

Open Poster Sessions
(1) 60 Posters (3 ft wide by 4 ft high) per day for approx. 180 total
(2) Topical posters with poster presentations during breaks
(3) Percentage allocated for students with sponsored flights
(4) Special ONR/ASEE visiting faculty and interns poster session featured on Thursday of workshop

Fees:
(1) $100 Non-IEEE Members
(2) $75 Government and Non-Profit
(3) $50 IEEE Members
(4) Students Free
(5) Exhibitors $1000 basic rate ($700 Bronze, $1500 Gold, $3000 Platinum)

MindMap and Flow Diagram with Spotfire

For Internet Explorer Users and Those Wanting Full Screen Display Use: Web Player Get Spotfire for iPad AppSlides

Note: The TOGAF 9 Book has 140 figures which can be a bit overwhelming so we start with the three key diagrams and their inter-relationship to put all the others in context.
Question: What is the interface to all of this? What are the relationship between the four key diagrams used in the training? How does one take a specific example all the way through this?

Answers: See "My TOGAF" where I use the Wiki and Spotfire to show the structure, flow, and data. This in effect becomes an Architecture Repository for TOGAF itself build with "cloud tools"! This constitutes TOGAF Level 5 Capability to re-architect the architecture itself and implement it in the cloud! A preview of this was given at the Open Group San Diego Conference and more will be presented at the Open Group London Conference.

See Questions and Answers continued below.

| High-level Overview: The ADM Process generates artifacts that go into the Architecture Repository that are standardized themselves by use of the Reference Models. Now this whole matrix moves along in time in a continuum (see figure below). |  | The ADM is more cyclic and iterative than this diagram might convey. For example: Preliminary-to-A, Architecture Vision-to-Requirements Management-to-Documentation in the Architecture Repository and similarly repeat for B, C, and D. And iterated several times going from general to more specific each time. See Figure 19-1 below. E.- H. are changed dramatically by new cloud solutions like Infrastructure-as-a-Service (IaaS) and Software-as-a-Service (SaaS) since these are already architected and managed by the provider. |
References Models are compilations of policies and standards and taxonomies for defining terms and classifying investments in the EA portfolio. A Cloud Computing Reference Model by Patrick Stingley is shown to the far right from "The Role of Enterprise Architecture in Federal Cloud Computing (2011)."

Note: This interface can link to other resources outside the TOGAF Training Library.

Questions and Answers (continued):

Q: What are your Training Highlights:

A: Architecture: solutions for information management
Frameworks: multiple (TOGAF, DoDAF, FEA, SOA, Semantic)
Certifications: multiple, but outdated due to new trends in EA
Focus: data and its integration for both EA and solutions
Three examples: Web Site Re-Design, Enterprise Data Harmonization, and Global Data and Data Catalog Semantic Interoperability
Best Practice Examples: Federal IT Spending Dashboard

Q: Are saying you can create any views for which data is sufficient, just as one can with a commercial EA tool? Assuming you can, what is the metamodel and what are the "buckets"? Could anyone take over your wiki and understand the design and organizing logic?
Can one see baseline and target views to do gap analyses? How are the gaps converted to requirements and where are the requirements stored?

A: Great questions: My theme for my EPA EA work was “Create a Data Architecture and Database for Enterprise Architecture!” and for my EPA DA work was “Build EPA’s Data Architecture in the Cloud in Support of An Enterprise Data and Metadata Model”. This is what these DoD Emerging Technology SIG meetings led by Walt Okon are about.

Spotfire can create multiple views (visualizations like scatter plots, heat maps, cross-tables, etc.) from spreadsheet data – more than any commercial EA tool I have seen. I showed this at EPA for Troux versus Spotfire – see the wiki and Spotfire work. Yes, anyone can author, comment on, or read the wiki with its multiple-level permission system.

I developed both baseline and target views in the wiki and we converted gaps to requirements through stakeholder interviews or just my going ahead to re-architect many of their data apps – see http://semanticommunity.info/#EPA_Activities and http://semanticommunity.info/EPA.

Let's start collecting the TOGAF, DoDAF, etc. EA data so we can demonstrate more of this! I have done this for the Federal IT Spending Dashboard. Federal CIO Vivek Kundra talked about the IT Dashboard & the Value of Transparency recently in a video.

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**Open Group**

http://opengroup.org/

The Open Group is a vendor-neutral and technology-neutral consortium, whose vision of Boundaryless Information Flow™ will enable access to integrated information, within and among enterprises, based on open standards and global interoperability.

**TOGAF**

TOGAF® (The Open Group Architecture Framework): A comprehensive architecture framework and methodology which enables the design, evaluation and implementation of the right architecture for an enterprise. Course Directory and Complete Book (Password required).

See TOGAF 9 Enterprise Edition. The Open Group publishes TOGAF on its public web server, and allows and encourages its reproduction and use free-of-charge by any organization wishing to use it internally to develop an enterprise architecture (non-commercial use).

**Standards Information Base (SIB)**

http://opengroup.org/sib/
A database that can dynamically generate lists, structured according to the TOGAF® taxonomy of services, of all the standards for use in open systems architecture. A highly effective procurement tool. (Under revision)

... the link between Architecture and Procurement ...

Principle 14: Common Vocabulary and Data Definitions

http://www.opengroup.org/architectur...ch/chap23.html

Statement: Data is defined consistently throughout the enterprise, and the definitions are understandable and available to all users.

Rationale: The data that will be used in the development of applications must have a common definition throughout the Headquarters to enable sharing of data. A common vocabulary will facilitate communications and enable dialog to be effective. In addition, it is required to interface systems and exchange data.

Implications: We are lulled into thinking that this issue is adequately addressed because there are people with "data administration" job titles and forums with charters implying responsibility. Significant additional energy and resources must be committed to this task. It is key to the success of efforts to improve the information environment. This is separate from but related to the issue of data element definition, which is addressed by a broad community - this is more like a common vocabulary and definition. The enterprise must establish the initial common vocabulary for the business.

The definitions will be used uniformly throughout the enterprise. Whenever a new data definition is required, the definition effort will be co-ordinated and reconciled with the corporate "glossary" of data descriptions. The enterprise data administrator will provide this co-ordination.

Ambiguities resulting from multiple parochial definitions of data must give way to accepted enterprise-wide definitions and understanding.

Multiple data standardization initiatives need to be co-ordinated. Functional data administration responsibilities must be assigned.

SOA Work Group - Ontologies for SOA


FEA Reference Model Ontology

TO DO: Extract Vocabulary from NFO/OWL

See Report, Project Plan, and Slides. Also Emails on Enterprise Vocabulary Net.

Download Version 3.4 (free 30-day trial)

Challenges

- Vocabularies from different systems are available in contrasting and often idiosyncratic forms.
• Different groups don’t communicate while developing taxonomies, resulting in overlapping coverage and differences in representation.

• Terms from one vocabulary often need to link to another. How does my notion of “Customer” relate to yours?

• External vocabulary resources are valuable, but typically are not designed in a way that is compatible with enterprise needs.

• Spreadsheets are a common tool but have a number of technical limitations including size, structure, and linkage.

• Taxonomy tools are often built into other apps (CRM, BPM, SOA, etc.), with limited and disconnected functionality.

• Vocabulary Management is treated as an isolated activity, though it has impact throughout the enterprise.

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**DoDAF**


DoDAF V2.0 focuses on architectural "data", rather than on developing individual "products" as described in previous versions. In general, data can be collected, organized, and stored by a wide range of architecture tools developed by commercial sources. It is anticipated that these tools will adopt the DM2 PES for the exchange of architectural data.

DoDAF V2.0 provides a Data Capture Method for each data group of the DM2 to guide architects in collecting and organizing the necessary architectural data.

This is what I can do with Spotfire (and the Wiki)!

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**EA Principals**


Our Mission: To help you attain your transformational goals, large or small, through strategic and practical training, assessments, advising and mentoring that results in demonstrable business value. To that end, we leverage the best EA talent in the market.

We teach and apply proven and innovative enterprise architecture methodologies and best practices that suit a broad range of problems. The result is architectural efficiency, performance, scaleability, agility, IT alignment, and stakeholder access to critical knowledge and information. As a Service-Disabled Veteran-Owned Small Business (SDVOSB), we are also positioned to make our network of consulting and training talent rapidly available to prospective federal government clients.

The upcoming DC TOGAF 9 courses are:
March 21-24, TOGAF 9 Combined 1 & 2
May 9-12, TOGAF 9 Combined 1 & 2

[http://semanticommunity.info/Build_TOGAF_in_the_Cloud](http://semanticommunity.info/Build_TOGAF_in_the_Cloud)
Updated: Sat, 19 Sep 2015 03:49:20 GMT
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May 25-26, TOGAF 9 Foundation Boot Camp
June 2-5 TOGAF 9 Combined 1& 2

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**EA and the Cloud: Dramatic Business Value**

March 23, 2011, 5:45 - 8:45 PM
Location/Venue: Synectics for Management Decisions Suite 900
1901 Moore St., Arlington, VA 22009 (Near the Rosslyn Metro Stop)

Proudly Announces the Next Plenary Event of its 2011 Seminar Series ([PDF](#))

AOGEA Washington Metropolitan Area is focused on bringing value to its members throughout the year. The seminar series “EA and the Cloud: Design for Dramatic Business Value” is focused on how EA can directly benefit the value chain of government/businesses through Cloud Computing. EA, in addition to enabling better IT governance, is invaluable in uncovering enterprise complexity and for planning more comprehensively and confidently for transformation.

The seminar series is intended for practicing Enterprise Architects to recharge their skill bases with emerging advances in EA. Seminars are presented through the eyes of leading edge seasoned practitioners and presenters. The two topics for this event represent tectonic shifts that will transform Federal Enterprise Architecture:

Thinking Clearly about Enterprise and Solution Architecture for the Cloud – A Federal Government Imperative by Jim Tyson, Assistant General Manager at Synectics for Management Decisions

Build TOGAF, UDEF, and Other Standards in the Cloud by Dr. Brand Niemann, Director and Senior Data Scientist of the Semantic Community and former Senior Enterprise Architect and Data Scientist at the U.S. EPA

AOGEA-WMA welcomes members and non-members and invites both membership and active participation in the Chapter’s activities in furthering Enterprise Architecture in the National Capital Region.

A nominal fee of $30.00 is required (or $20.00 — if pre-paid by 21 March via PayPal@AOGEA-WMA.org)
Refreshments will be served starting at 5:30. Join the Networking!
Presentations start at 6:15. The raffle will be at 8:45.

Special Offers:
For AOGEA-WMA Members:
1. Half Price TOGAF 9 Exam Voucher for all taking EA Principals’ TOGAF 9 Certification Training in Spring 2011 (Value $160)
2. 10% discount off retail for all of EA Principals’ TOGAF training programs in Spring 2011 (Does not apply to Early Bird Discount) (Approximately $200 value )

For all Event Attendees: Eligibility for Raffle for
1. One month access to GartnerOnDemand for its October 2010 ITxpo (Retail Value $995)
2. For 50% off of EA Principals’ next Washington DC Area TOGAF 9 Certification Training Class: (Retail Value over $1000)

For RSVP (Space Limited) and Questions: Write to [events@aogea-wma.org](mailto:events@aogea-wma.org) or call 703-582-3068
Speakers for the March 23, 2011 Event

Jim Tyson Assistant General Manager and Project Director at Synectics for Management Decisions and host for the next two Chapter meetings

**Presentation Title**: Cloud Solutions Architecture 101

**Abstract**: Cloud Infrastructure-as-a-Service (IaaS) provides tremendous new opportunities to realize business value through capital and operating cost savings. At the same time, Cloud IaaS characteristics mean that traditional approaches to systems and solutions architecture are in many ways outmoded. Modern Cloud solution architectures take advantage of the unique characteristics of Cloud services to provider greater efficiencies. This presentation provices an approach to cloud solutions architecture, illustrated by some common cloud use cases and examples.

**Background**: With more than 30 years of experience in computer and information systems, Jim provides technical and management leadership on information technology (IT) projects such as governance, business intelligence, computing trends, and engineering and software solutions. Mr. Tyson received an MBA from the Edinburgh Business School, and a Juris Doctor degree at Concord Law School. He is also TOGAF Certified; and a founding Board member, Lecturer and Practicum Mentor for the new Enterprise & Solution Architecture Institute (ESAI).

Brand Niemann, Ph.D.
Director and Senior Data Scientist of the Semantic Community and former Senior Enterprise Architect and Data Scientist at the U.S. Environmental Protection Agency

**Presentation Title**: Build TOGAF, UDEF, and Other Standards in the Cloud

**Abstract**: The Open Group has begun to explore how to address next generation semantic interoperability needs across different existing information exchange standards, vocabularies, and web resources (e.g. TOGAF, SOA and Cloud Computing, UCore 2.0, DISA Metadata Registry, Air Force Vocab OneSource). This presentation will show progress in achieving Semantic Interoperability across these different existing information exchange standards, vocabularies, and web resources and how Cloud Computing tools can be very useful in doing that work.

**Background**: See http://semanticommunity.info/ for much more expansive information about Dr. Niemann. Along with being faculty for EA Principals, Inc., he is also a founding Board member, Lecturer and Practicum Mentor for the new Enterprise & Solution Architecture Institute (ESAI). Brand has also written an online book "A New Enterprise Information Architecture and Data Management Strategy for the U.S. EPA and the Federal Government" and implemented A Gov 2.0 Platform for Open Government in a Data Science Library.

http://semanticommunity.info/Build_TOGAF_in_the_Cloud

Updated: Sat, 19 Sep 2015 03:49:20 GMT

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Speakers for the April 26, 2011 Event

Because of the high demand for more practical information and networking among enterprise architects regarding Cloud Computing, the AOGEA-WMA is taking on a more active role to make this possible. Besides the March event, we have already lined up speakers for an April meeting as well. The overall theme for the April meeting will be

"Analyses of Alternatives and Cloud Computing — The Path to Robust Transformation Decision Making for Sustained Enterprise Value."

Dr. David Ullman, President of Robust Decisions, Inc. will speak specifically on the documented imperative for better analyses of alternatives in government programs and how to do better ones. Then Dr. Steve Else., Co-Chair of the AOGEA-WMA Chapter, and Chair of the Enterprise & Solution Architecture Institute, will moderate a panel of Cloud Computing experts on this topic, including Dr. Brand Niemann, who will return in April to participate. Stay tuned!

Please note: Dr. Ullman will also be holding a full day workshop on April 27th in Arlington, VA on mastering AoAs.

AOGEA Washington Metropolitan Area: https://chapters.aogea.org/dc/

EA and the Cloud: Design for Dramatic Business Value
http://eaprincipals.com/events.htm

EA, in addition to enabling better IT governance, is invaluable in uncovering enterprise complexity and for planning more comprehensively and confidently for transformation.

The topic for this event represents the tectonic shifts that will transform Federal Enterprise Architecture:

Analyses of Alternatives and Cloud Computing — The Path to Robust Transformation Decision Making for Sustained Enterprise Value

AOGEA-WMA welcomes members and non-members and invites both membership and active participation in the Chapter’s activities in furthering Enterprise Architecture in the National Capital Region.

A nominal fee of $30.00 is required for non-members (or $20.00 — if pre-paid by April 22nd via PayPal@AOGEA-WMA.org) Everyone attending must RSVP by noon on April 22

Refreshments will be served starting at 5:45. Join the Networking! Presentations start at 6:15, after which access to the meeting room will not be possible. The raffle will be at 8:45.

Location/Venue: April 26, 2011, 5:45 - 8:45 PM
Synectics for Management Decisions Suite 900
For RSVP (Space Limited) and Questions: 1901 Moore St., Arlington, VA 22009
(Near the Rosslyn Metro Stop) Write to events@aogea-wma.org or call 703-582-3068

Special Offers:
• For AOGEA-WMA Members:
  1. Half Price TOGAF 9 Exam Voucher for all taking EA Principals’ TOGAF 9 Certification Training in Spring or Summer 2011 (Value $160)
  2. 10% discount off retail for all of EA Principals’ TOGAF training programs in Spring and Summer 2011 (Does not apply to Early Bird Discount) (Approximately $200 value)

• For all Event Attendees: Eligibility for Raffle for

http://semanticommunity.info/Build_TOGAF_in_the_Cloud
Updated: Sat, 19 Sep 2015 03:49:20 GMT
Powered by mindtouch 46
Keynote: David Ullman, Ph.D., P.E. President, Robust Decisions, Inc.

Presentation Title: Analysis of Alternatives (AoA)— Key to Successful Programs

Abstract: In 2009, the GAO studied 32 Department of Defense (DoD) acquisition projects and found that 69% of the projects with weak AoA studies had major cost and schedule overruns, while only 22% of those with strong AoA efforts missed their targets. AoA success goes beyond the acquisition of weapon systems and shows similar results for any new project, program, process, policy, or other organizational change. AoA is a process that begins with the development of multiple competing alternatives. The goal is to not only find which alternative is strongest; but what areas need improvement and which risks need mitigation to ensure project budget and schedule success.

Background: Dr. David Ullman is the President of Robust Decisions. In the 1990s, while teaching engineering design at Oregon State University, he became aware of the importance of using structured methods to analyze alternatives. By 2002 he had developed tools specifically designed to support the analysis of alternatives when information is uncertain, incomplete, conflicting and evolving (see http://www.robustdecisions.com and http://www.accordmanager.com).

Panel Chair: Brand Niemann, Ph.D.
See http://semanticommunity.info/ for much more expansive information about Dr. Niemann. Also see Course Outline

Name of Panel: Developing Analyses of Alternatives for Cloud Computing

Panel Members: Jim Tyson and David Ullman

Abstract: Even before Cloud Computing became such a hot topic, maturity in the area of Analysis of Alternatives was very low in the Federal Government, usually restricting alternatives to buy vs. build or a variation of this. With Cloud Computing, though, how do even these traditional alternatives play out? That is what will be discussed in the panel. Focusing on Cloud Computing will also make Dr. Ullman’s talk all the more meaningful, as there will be additional structure for the discussion.

Background: Along with being faculty for EA Principals, Inc., he is also a founding Board member, Lecturer and Practicum Mentor for the new Enterprise & Solution Architecture Institute (ESAI) in the areas of Service-Oriented Architecture and Cloud Computing.