

# SPECIAL SESSION: EMERGING STANDARDS FOR SERVICE-ORIENTED ARCHITECTURES

**08:30 - 9:00** **OMG Welcome and Overview of the Session**

**09:00 - 10:00** **Semantics for Web Service Specification** (OWL-S, Service Definition Framework) Chris Bashioum - Mitre and David Martin -SRI <http://www.w3.org/Submission/OWL-S/>

**10:00 - 11:00** **Policies for Web Services** (WS -Policy Framework including Assertions, Attachments, and Applications) Toufic Boubez - Layer 7 Technologies  
"<http://www.w3.org/TR/2006/WD-ws-policy-20060927/>"

**11:00 - 12:00** **Security for Web Services** (WS-Security and WS-I Security Profile) Michael McIntosh - IBM [http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=wss](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=wss)  
<http://www.ws-i.org/Profiles/BasicSecurityProfile-1.0.html>

**12:00 - 13:30** **Lunch**

**13:30 – 14:30** **Orchestrating Services and Attaching Policies** (Service Component Architecture and Eclipse SOA Development Tools) Michael Rowley - BEA and Patrick Walsh - Iona  
<http://www.osoa.org/display/Main/Service+Component+Architecture+Home>  
<http://www.eclipse.org/stp/>

**14:30 – 15:30** **Data Interoperability for Services** (Service Data Objects and Apache Tuscany) Daniel Murphy - IBM  
[http://www.osoa.org/download/attachments/287/SDO\\_General\\_July\\_2006.ppt?version=1](http://www.osoa.org/download/attachments/287/SDO_General_July_2006.ppt?version=1)  
<http://incubator.apache.org/tuscany/>

**15:30 – 16:30** **Model-based Data Engineering for Services** (Using standard data models for service-based information sharing) Michael Hieb - George Mason University  
"<http://netlab.gmu.edu/pubs/TolkPullen-MediationServices.pdf> "

**16:30 – 17:30** **Collaboration across standards groups on emerging SOA standards** (OMG, The Open Group, OASIS, CBDI) James Odell -  
OMG

**All of the speakers for the session are leaders in the development of the standards to be discussed.**

## Background Information on Web Services Standards

**Emerging Web Services standards are making possible enhanced interoperability including discovery, composition, and security**

**WSDL and WSDL-S** -WSDL is the W3C standard for describing interfaces to services. WSDL provides the capability to add semantic extensions to WSDL

<http://www.w3.org/Submission/WSDL-S/>

**WS-Policy Framework** -WS-Policy is a future W3C standard that describes constraints on services and other entities. Policy assertions can be embedded in XML descriptors or attached external. Security policies are a key application.

<http://lstdis.cs.uga.edu/~kunal/publications/SemanticPolicy-SWDP-final.pdf>

**WS-Security and WS-I Basic Security Profile** -WS-Security is an XML-based OASIS standard for specifying security elements. The WS-I Basic Security Profile is a specific collection of interoperable components based on WS-Security.

[http://www.oasis-open.org/committees/tc\\_home.php?wg\\_abbrev=wss](http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=wss)

<http://www.wsi.org/deliverables/workinggroup.aspx?wg=basicsecurity>

**Web Ontology for Services (OWL-S)** - OWL-S is a semantic language for the specifying the properties of services that has been submitted to the W3C. It can be used as an extension to both WSDL-S and WS-Policy to supports service discovery and composition. The Service Definition Framework(SDF) is a format for describing the properties of services using OWL-S and WSDL-S. OWL-S

<http://www.daml.org/services/owl-s/1.0/owl-s.html> SDF [colab.cim3.net/file/work/SICoP/2006-08-15/ServiceDefinitionFrameworkSOAFWGV3.ppt](http://colab.cim3.net/file/work/SICoP/2006-08-15/ServiceDefinitionFrameworkSOAFWGV3.ppt)

## Open Service Oriented Architecture (OSOA) Standards

**The Open Service Oriented Architecture organization is a recently formed industry group whose members including the leading software vendors (e.g. IBM, Sun, BEA, Oracle, Red Hat, TIBCO, Sybase) <http://www.osoa.org>. OSOA is creating standards for SOA development and data representation.**

**Service Component Architecture (SCA)** - SCA is a framework for describing and composing services in multiple languages. It enables application developers to create components independently of the middleware infrastructure. SCA is expected to play a significant role in future SOA implementation. For example, there is a March 2006 Gartner Group report entitled "SCA Is a Winner in the Quest to Establish a Common Notation for SOA"

<http://osoa.org/display/Main/Service+Component+Architecture+Home>

**Service Data Objects (SDO)** - SDO is a data representation that is used for formatting, merging and transporting data from heterogeneous sources including XML and relational databases. Initial versions of SDO are already being used in products. Combined with Data Access Services, SDO will be a key component of future SOA Information Integration. In December 2005, the Gartner Group said "Assume that SDO will become prevalent by late 2007, and seek out products that support SDO abstractions for data." [http://osoa.org/download/attachments/287/SDO\\_General\\_July\\_2006.pdf?version=1](http://osoa.org/download/attachments/287/SDO_General_July_2006.pdf?version=1)

**Open Source Tools** -An Apache Tuscany Open Source Implementation of SCA and SDO is under development <http://incubator.apache.org/tuscany/> Eclipse Open Source SOA Tools Platform will support the development of SCA applications. <http://www.eclipse.org/stp/>

## Information Sharing for SOA

**Information Sharing is a key requirement for SOA interoperability. Service Data Objects and model-based data engineering will support composable services across multiple C2 systems**

**Model-based Data Engineering for Composable Web Services** - Service interoperability requires standardized shared data models at conceptual, attribute and content levels. Recent work in the defense domain has demonstrated this type of model-based interoperability across distributed data sources

[http://colab.cim3.net/file/work/Expedition\\_Workshop/2005\\_08\\_16\\_DesigningTheDRM\\_forDataAccessibility/Spot\\_IEEE\\_Internet\\_Computing\\_july\\_2005.pdf](http://colab.cim3.net/file/work/Expedition_Workshop/2005_08_16_DesigningTheDRM_forDataAccessibility/Spot_IEEE_Internet_Computing_july_2005.pdf)