





## **Carnegie Mellon University**

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- **Goal:** Create the Semantic Web Services revolution.
- In support of this goal, the OWL-S coalition has engaged in the following outreach and standardization activities:
- Semantic Web Services Initiative (SWSI)
- W3C activities
- Tutorials, talks, tools



- It is a US EU initiative, comprised of EU and US researchers and industry members whose mission is threefold:
  - 1. to create infrastructure that combines Semantic Web and Web Services technologies to enable maximal automation and dynamism in all aspects of Web service provision and use, including (but not limited to) discovery, selection, composition, negotiation, invocation, monitoring and recovery.
  - 2. to coordinate ongoing research initiatives in the Semantic Web Services area
  - 3. to promote the results of SWSI work to academia and industry
- SWSI deliverables include proposals to standards bodies, reviews of industry white papers, technical notes



#### **SWSI** has a number of committees:

- architecture (SWSA) (M. Burstein and C. Bussler)
- language (SWSL) (D. Martin and M. Kifer)
- an industrial board (M. Ushold, J. Davies and B. Grosoff)
- an advisory board (M. Greaves, M. Cerconi)
- an executive committee (D. Fensel, K. Sycara)
- URL: <u>http://www.swsi.org/</u>

Mail list: General announcements and discussions: www-ws@w3.org Mail archives: <u>lists.w3.org/Archives/Public/www-</u> ws/

Additional mailing lists for the various committees





#### **Face to Face Meetings**

- December 17-18 2002: Innsbruck, Austria.
- April 10-12 2003: Miami, Florida, USA.
- October 19, 2003: Sanibel Island, Florida, USA

#### **Results to date**

- Semantic Web Services Language (SWSL)
  - Requirements document
  - Use cases www.daml.org/services/use-cases/language

#### Semantic Web Services Architecture (SWSA)

• Use case repository www.daml.org/services/use-cases/architecture





- Creation of a Semantic Web Services Interest Group (SWS-IG) within the Web Services Activity
- Review deliverables of W3C and non-W3C working groups related to Web services.
- Discuss implementation and deployment of Web services and Web services technologies.
- Explore pre-standardization research issues for nextgeneration Web services, e.g. relationship with autonomous agent technology, distributed query protocols, etc.





### SWS-IG mission (cnt)

- Share experiences with creation and deployment of Web services created using SOAP, WSDL, REST, RDF and other Semantic Web technologies (e.g. DAML-S), and others.
- Discuss appropriate use of Semantic Web technologies in the discovery, composition, relocatability and other aspects of Web services needs.
- Provide guidance and advice, when requested, to the Web services Working Groups on charter requirements for mapping to RDF languages.
- Membership: open to the public
- Lists: public-sws-ig@w3.org





# Participation of OWL-S coalition members in various W3C working Groups

#### Web Services Architecture

- The need for semantics recognized in the architecture document
- Mapping of WSA to OWL
- Web Services Description

Mapping of WSDL to RDF

- Web Services Choreography
- SWSI as a member of W3C





#### Owl- S Standardization Strategies

- OWL-S as a standard (follow the OWL standardization) in W3C
- "Fragmented" infusion of semantics in different parts of web services standards (e.g. wsdl, choreography, possibly chartering a new group on discovery)
- Interactions with various standards organizations
- Interactions with industry





- Participation and tutorials on OWL-S at the Web Services Military Users Group
- Semantic Web Conference
- Tutorials on OWL-S and Semantic Web services in industrial and scientific conferences
- Workshops at various conferences (e.g. AAMAS, IJCAI, Spring Symposium)
- Start building the business case for semantics in Web Services
  - "Complete, do not compete" (e.g. OWL-S grounding layered on top of WSDL, OWL-S/UDDI matchmaker)
  - "A little semantics goes a long way" (e.g. WS Security, WS Management)