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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)**
- **Standards activities**
- **Tutorials, talks**
- **Use Cases**
- **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. Groszoff)
 - an advisory board (M. Greaves, EU PM, Rudi Studer, Jim Hendler)
 - an executive committee (D. Fensel, K. Sycara)
- **URL: <http://www.swsi.org/>**
- **Mail list: General announcements and discussions:
www-ws@w3.org
Mail archives: lists.w3.org/Archives/Public/www-ws/**
- **Additional mailing lists for the various committees**

Four Face to Face Meetings

- May 23-24, New York City, USA

Results to date

- **Semantic Web Services Language (SWSL)**
 - Requirements document
 - Use cases www.daml.org/services/use-cases/language
 - Proposals for extending OWL-S
 - Submission of Note to W3C (September 2004)
- **Semantic Web Services Architecture (SWSA)**
 - Use case repository www.daml.org/services/use-cases/architecture
 - Requirements document
 - Submission of Note to W3C (September 2004)

■ **Creation of a Semantic Web Services Interest Group (SWS-IG) within the Web Services Activity**

Created in October 2003

- **Discuss implementation and deployment of Web services and Web services technologies.**
- **Considerable traffic discussing mainly OWL-S issues**
- **Explore pre-standardization research issues for next-generation Web services, e.g. relationship with autonomous agent technology, distributed query protocols, etc.**
- **Membership: open to the public**
- **Lists: public-sws-ig@w3.org**

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

- **Web Services Architecture (W3C)**
 - Resulted in a W3C Note
 - Mapping of WSA to OWL
- **Web Services Description (W3C)**
 - Mapping of WSDL to RDF
- **Web Services Choreography (W3C)**
- **UDDI Technical Committee (OASIS)**
 - TC considers OWL for expressing product taxonomies

- **Owl- S Standardization Strategies**
 - **OWL-S as a standard (follow the OWL standardization) in W3C, continued discussions**
- **“Fragmented” infusion of semantics in different parts of web services standards (e.g. wsdl, choreography, possibly chartering a new group on discovery)**

- **OWL-S presence in Semantic Web Conference Series**
- **Tutorials on OWL-S and Semantic Web services in industrial and scientific conferences**
- **Workshops at various conferences (e.g. AAMAS, IJCAI, Spring Symposium)**
- **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)**

- **Financial Transaction**
- **Amazon browsing and buying**
- **Travel service scenario**
- **WS Discovery**

■ Authoring Tools

- SRI OWL-S Editor
- CMU WSDL2OWL-S
- CMU OWL-S Editor
- CMU IDE
- Mind-Swap Ontolink

■ Web Service Discovery

- CMU OWL-S/UDDI Matchmaker
- KSL Semantic Discovery Service
- CMU OWL-S for P2P

■ Web Service Discovery and Mediation

- CMU OWL-S Broker

- **Automatic WS Invocation**
 - **CMU OWL-S Virtual Machine**
- **Web Service Composition**
 - **Mind-Swap Composer**
 - **KSL Composition Tool**
 - **CMU Computer Buyer**
- **Libraries**
 - **OWL-S API**

- **OWL-S is layered on OWL**
 - All the tools & technologies for OWL are relevant
- **See also: <http://www.daml.org/services/>**
 - [Tools page](#)
 - www.semwebcentral.com

Some Applications Using OWL-S

- CoSAR-TS demo
- CMU demo(s)
 - Travel planning, Electronic parts buying, DAMLzon, Broker, Matchmaker...
- Golog composition demo
- MyGrid: (<http://mygrid.man.ac.uk>)
- AgentCities (www.agentcities.org)
- Task Computing (Fujitsu Labs with MINDSWAP)
- Composer demo (<http://www.mindswap.org/~evren/composer/>)
- MyCampus (<http://128.2.199.68/project>)
- Secure Mobile Services (UMBC/Finin)

■ DAML-S/OWL-S publications

- Many and varied, tying in with several research areas & communities
- See <http://www.daml.org/services/owl-s/> for a partial listing

■ DERI initiative

- WSMO