OWL-S Open Issues Discussion

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http://www.daml.org/services/

Outstanding Issues
(as of Rel. 1.0)

- For the Profile Ontology (and discovery processes)
- For the Process Ontology (and dynamic invocation, composition, execution monitoring)
- For the Grounding Ontology (and mappings to transport protocols)
- To facilitate adoption by industry

Outstanding Issues

Profiles and Discovery

- Relationship with ontologies for classifying services and products
- N-ary relationships between profiles and processes
- Protocols and use models for query refinement, service selection based on details of process models

Outstanding Issues

Process Ontology and Intended Uses

- For the Process Ontology (and dynamic invocation, composition, execution monitoring)
  - Multi-party processes (whose (sub)process is it?)
  - Explicit relationship between processes and messages
  - Handling of data flow (and variable binding in conditions)
  - Conditional bundling of inputs (polysemy) and correlated outputs and effects
  - Transactional and asynchronous control flow
  - Exception handling

Outstanding Issues

Grounding Ontology and Data Transformation

- For the Grounding Ontology (and mappings to transport protocols)
  - Relationship with ontologies for classifying services and products
  - N-ary relationships between profiles and processes
  - Protocols and use models for query refinement, service selection based on details of process models

Adoption-related Issues
(as of Rel. 1.0)

- Where possible, prefer compatibility with emerging industry standards
- Developing mappings to enable joint use with other standards
- Provide incremental paths to adoption (promote as semantic extension of WSDL, a semantic layer for workflow/choreography languages like BPEL4WS)
- Develop tools that demonstrate the value added of OWL-S in conjunction with these standards

- Process Ontology (and dynamic invocation model)
  - Multi-party processes (whose (sub)process is it?)
  - Explicit relationship between processes and messages
  - Handling of data flow (and variable binding in conditions)
  - Conditional bundling of inputs (polysemy) and correlated outputs and effects
  - Transactional and asynchronous control flow
  - Exception handling
- Grounding Ontology
  - Mapping of OWL descriptions to/from transport representations

Mapping Language for Grounding Complex Data into WSDL Messages