BBN Technologies
DAML Integration Contract
GFY – 04 Overview

Presented at the DARPA DAML PI Conference
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By
Cola Atkinson
Overview Agenda

• Overview of the goals and deliverables of your 2004 project
• Current functionality and IP status with respect to your deliverables
• Will your software deliverables be on SemWebCentral? When?
• What are your plans to wrap up and finish (projected status at end of 2004)?
DARPA GFY-04 Objectives

• OWL Support
  – Support through to Full Recommendation

• Services
  – Develop approach
  – Tools, demonstrations & documentation
  – Support development of specification

• Rules
  – Derive Rules specification
  – Support W3C standardization efforts
  – Open Source authoring tools & documentation

• Tools
  – Professional quality Open Source web site
  – Easy to use straight forward collection of tools
  – Useful ontology registry
OWL Support

- Participated in W3C Web Ontology WG
- Co-editor of OWL Reference (Mike Dean)
- Our role essentially complete with W3C Recommendation milestone

W3C Recommendation 10 February 2004
Services

- Participate in DAML Services Coalition
  - OWL-S version 1.0 released
  - Version 1.1 due by 01 June
- Co-chair SWSI Architecture Committee (Dr. Mark Burstein)
  - Draft requirements document now available
  - SWSA Note by September 30

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• Chair Joint Committee (Mike Dean)
  – SWRL 0.5
  – SWRL 0.6
  – W3C Member Submission
• RuleML Steering Committee
• XML Schema for SWRL 0.6 XML Concrete Syntax
• SWRL -> CLIPS translator
  – Will be moved to SemWebCentral
• Use of SWRL for ontology translation (CODE Project)
• DAML Tools Assessment
  – Delivered Tools Assessment document
  – On-line/interactive OWL version available at SemWebCentral

• Open Source site for SW Developers
  – Designed, developed & built SemWebCentral
  – Launched on 30 January 2004
  – Currently hosting 23 projects

• Packaged several BBN developed tools as Open Source projects and moved SemWebCentral
  – Dumpont
  – Hyperdaml
  – owl-emacs
  – owl-vim
  – ObjectViewer
  – OWL Validator
  – Kazuki
• SWeDE
  – Custom perspective in Eclipse for managing and sharing Semantic Web resources between plug-ins
  – OWL Development toolkit to support
    • generation, editing & validation of ontologies & instance data
    • automatic generation of Java API classes
    • extension points for integration of tools for completing more Semantic Web workflows

• Other Semantic Web sites maintained
  – daml.org
  – infosphorics.org
Transition
(the 5th objective)

• JBI (Joint Battlespace Infosphere)
  – OWL-based subscription matching using JESS into the JBOSS-based JBI 1.0.1 Platform
  – Demonstrated result for the Air Force Scientific Advisory Board review

• Combine
  – IC Customer
  – WWW data retrieval, analysis & management
  – Combination of structured & unstructured
  – Co-reference resolution

• CODE (Common Ontological Data Environment)
  – IC Customer
  – Exploit SW technology for operational use across analysis domains
  – Proof of concept demonstrations last month (April 04)
    • Integrated into COTS GIS system
    • 5 data sources (including MIDB)
    • Dramatic reduction in data preparation time (data matching and deconfliction)
    • Initial implementations of rule-based analysis using SWRL
  – Transition program in planning

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Remainder of FY-04

- Services
  - SWSI Notes
  - SWSI Example
  - Wrap up by end of September
- Rules
  - Test Cases
  - SWRL Editor
  - SWRL to Jena 2 translator
  - SWRL Validator
- Tools
  - SemWebCentral.org
  - Expanded SWeDE functionality
- Transition
  - Transition IC efforts to new contract vehicles
  - Follow-up with potential new DoD transition opportunities
IP Status

- All Open Source
- All on SemWebCentral