

Triple Space Communication

FP6 – 027324

WP1: Storage
Vassil Momtchev



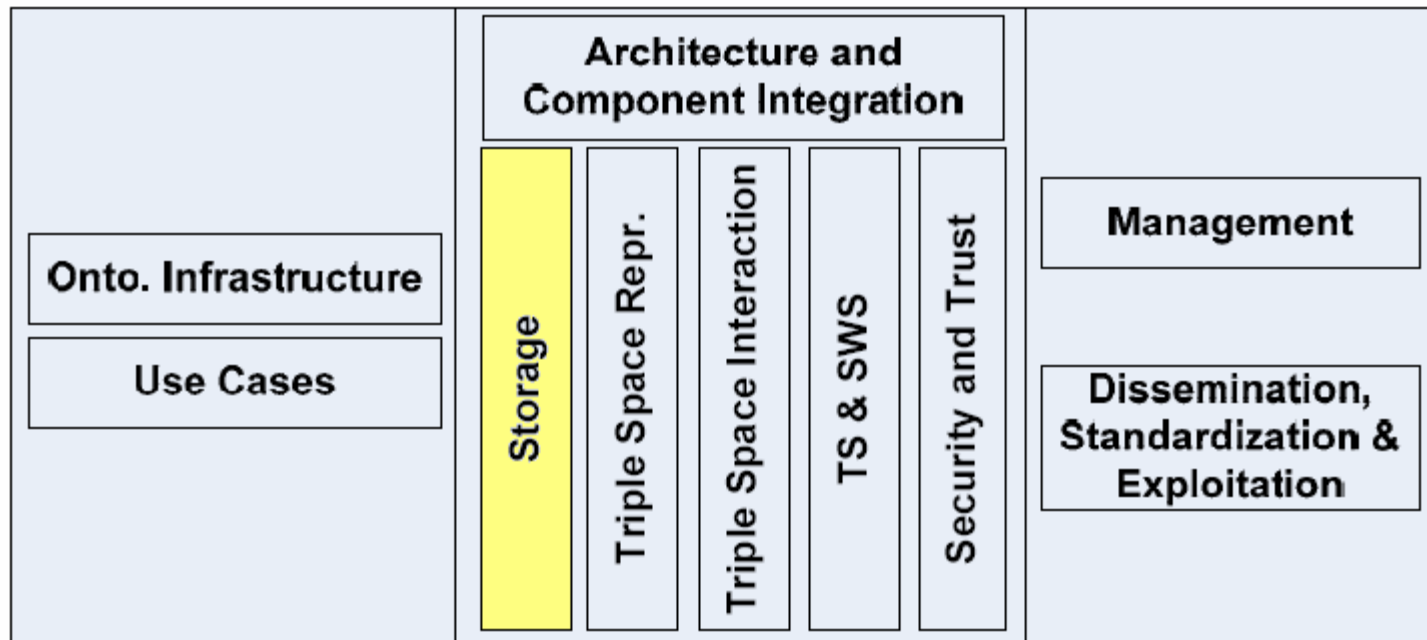
Important contacts

- WP leader
vassil.momtchev@ontotext.com
- WP management
 - Sven Groppe (LFUI)
 - Brahmananda Sapkota (NUIG)
 - Janne Saarela (Profium)
- WP1 maillist
 - <http://lists.deri.org/mailman/listinfo/tripcom-wp1>

Participants

- **Ontotext Lab, Sirma Group (30)**
- Leopold Franzens University Innsbruck (12)
- National University of Ireland, Galway (9)
- Profium OY (4)

Work Package Overview



Work Package Objectives

- Define architecture and interfaces of RDF-like triple storage extended with metadata
- Integrate external commercial storage components (RDBMS, file systems)
- Support virtual super-store for distributed storage management and querying
- Develop high performance scaleable store implementations based on Sesame, YARS

Challenges

- Provide support for virtual super-store, as a view to a cluster of stores.
 - Efficient querying distributed multigraph and “customized views”
 - Working with different schemas
- Allow efficient integration of external data-sources, and in particular relational databases.

Background

- Ontotext
 - ORDI, WSMO4J, OWLIM, TRREE, ...
- LFUI
 - WSMX, WSMO4J, TSC, ...
- NUIG
 - YARS, WSMX, TSC, ...
- Profium
 - SIR, ...

Tasks Outline

- T1.1 State-of-the-art and initial requirements analysis (D1.1; M3)
- T1.2 Specification of storage model and architecture based on RDF stores (D1.2; M6)
- T1.3 First implementation: basic infrastructure based on RDF stores (D1.3a; M12)
- T1.4 Determination of efficient and scalable solutions to access RDF triples (D1.3a; M12)
- T1.5 Specification of storage model and architecture abstracting arbitrary data stores (D1.3a; M12)
- T1.6 Second implementation: abstraction for bindings of non-triple based data stores (D1.3b; M18)
- T1.7 Third implementation: linking of Triple Spaces (D1.3c; M24)
- T1.8 Evaluation of initial prototype (D1.4; M30)
- T1.9 Refinement of prototype

Three phase implementation

- Basic infrastructure based on RDF stores (M0-6)
- Abstraction for bindings of non-triple based data stores – RDBMS (M6-18)
- Linking of Triple Spaces – (M18-24)

Milestones

- Flaw in the Gantt chart of TripCom annex version 1 final EC approved
 - Section 7.2 page 35
 - Wrong deliverables and milestones

Milestones

- M3 (June 2006)
 - *D1.1 State-of-the-art and Requirements Analysis (final)*
- M6 (September 2006)
 - *D1.2 Specification of the Store. Architecture and Interfaces*
- M12 (April 2006)
 - *D1.3a High-Performance Storage Implementation (draft)*
 - *Basic infrastructure based on RDF stores*
- M18 (September 2007)
 - *D1.3b High-Performance Storage Implementation (draft)*
 - *Abstraction for binding of non-triple based data stores*
- M24 (April 2008)
 - *D1.3c High-Performance Storage Implementation (final)*
 - *Linking of Triple Space*
- M30 (September 2008)
 - *D1.4 Storage Performance Evaluation (final)*

Relation to the other WPs

