






Data Management Components for Business



BEinGRID
BUSINESS EXPERIMENTS IN GRID



European Commission



Information Society
Technologies

Introduction

- **BEinGRID**
 - Business Experiments in Grid
 - FP6 Project
- **Objectives**
 - Support a number of Business Experiments as they try to apply Grid technology to real business cases
 - Analyse these experiments to find common problems
 - Produce extensions to existing Grid middleware
 - Data Management section focused on OGSA-DAI
 - Identify best-practices and try to learn lessons from the Business Experiment experiences
 - Set up Gridipedia, a repository of Grid software and literature for business
- **More information**
 - <http://www.gridipedia.eu>
 - <http://www.beingrid.eu>

2 **OGSA-DAI** *Business Experiments in GRID*

- **Components**
- **Current Progress**
- **OGSA-DAI Trigger**
- **Data Source Publisher**
- **Conclusion**

Four potential Data Management Components identified

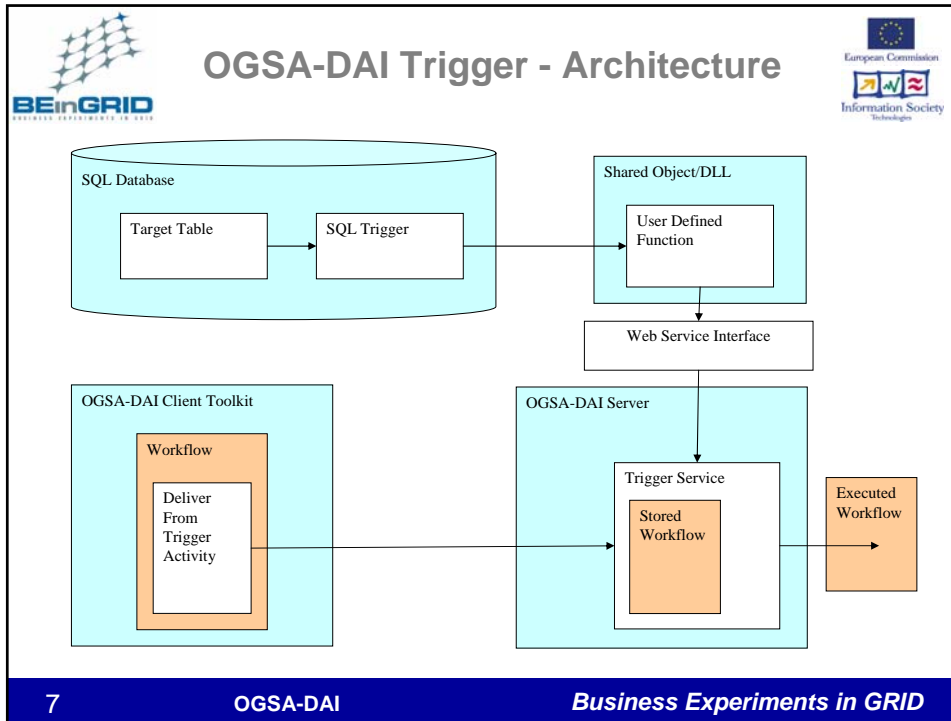
- **OGSA-DAI Trigger**
 - Execute an OGSA-DAI workflow in response to changes in a database
- **Data Source Publisher**
 - A GUI interface to publish data via OGSA-DAI
- **Query Translator**
 - A mechanism to transform queries so that it can be sent to multiple data sources with different data formats
- **JDBC Driver for OGSA-DAI**
 - A JDBC interface for OGSA-DAI

Current Progress

- **Versions of two components have been developed**
 - OGSA-DAI Trigger
 - Data Source Publisher
- **The other two components have been developed in other ways**
 - The OGSA-DAI team has developed SQL Views
 - Expose tables in a relational database with a different schema
 - Produce an SQL View over a read only table
 - <http://www.ogsadai.org.uk/downloads/>
 - Mathias Brito, University of São Paulo, has developed a JDBC interface for OGSA-DAI
 - <http://ogsadai-jdbc.sourceforge.net/>

OGSA-DAI Trigger

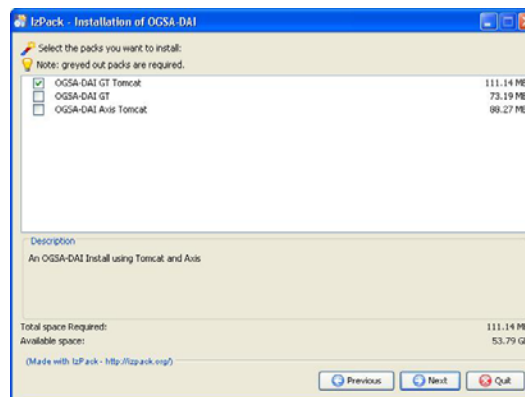
- **Provides a mechanism to execute an OGSA-DAI workflow in response to DB changes**
- **The workflow is executed when a row in the database is created/updated/deleted**
- **Support for MySQL**
 - Component is being extended for Informix, DB2 and MS SQLServer



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- The slide lists the features of the OGSA-DAI Trigger:
- **Web service interface to submit workflows**
 - Uses the same client toolkit as OGSA-DAI to build workflows
 - **Configure the Trigger to only send information of interest**
 - **Adds a mechanism to respond to changes in a database automatically**
 - **Client toolkit activity to provide trigger information in the workflow**
- Logos for BEinGRID, European Commission, and Information Society Technologies are present in the top corners.
- 8** **OGSA-DAI** **Business Experiments in GRID**

- **Finalise upcoming release to add support for more databases**
 - DB2
 - Informix
 - SQL Server
- **Future Work:**
 - Save/load workflows across invocations of the container
 - Better support for management of currently deployed workflows

- **Allows publication of data via OGSA-DAI**
- **Provides a simple GUI interface for deployment of OGSA-DAI and Data Resources**



Data Source Publisher - features

- **Uses IzPack – a Java based Installation tool**
- **Installs OGSA-DAI and its pre-requisites:**
 - Tomcat, Globus WS-Core, Axis, etc
- **Current version deploys OGSA-DAI 3.0**
 - Axis and globus versions
 - Tomcat 5.0.28
 - Axis 1.4
 - Globus WS-Core 4.0.5
- **Uses existing ant targets to install components**
- **Also deploys SQL/XML/file based data resources**
 - Contains drivers for several major databases
- **Download from:**
 - <http://www.gridipedia.eu/ogsa-daidatapublisher.html>

Data Source Publisher - Next steps

- **Update the Data Source Publisher**
 - Add support for OGSA-DAI 3.1
- **Add support for deploying data resources on existing OGSA-DAI installations**

Conclusion

- **The BEinGRID project has produced a number of components to extend the OGSA-DAI middleware**
 - OGSA-DAI Trigger
 - Data Source Publisher
- **OGSA-DAI Trigger allows a workflow to be stored and executed in response to changes in a database**
- **Data Source Publisher is a GUI application that deploys OGSA-DAI and its pre-requisites**

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