

Workflow Services and Workflow Grid Scheduling Strategies

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IAB Meeting

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Overview

- **Motivation**
- **Navigation through the Workflow Zoo**
- **Research Groups**
- **Technology Provided by Project Partners**
- **Discussion**

Motivation

- **Grid Workflows**
= automation of distributed IT processes
- **Grid Workflows**
= abstraction from technical details
- **Grid Workflows**
= connection of business processes with Grid infrastructure

Navigation through the Workflow Zoo

- **Grid Workflow Forum:**
<http://www.gridworkflow.org/>
- **Springer Book: Workflows for e-Science**
- **... and other 24 publications on Grid Workflow**



The Grid Workflow Forum [start | index | logged in as [bassheide](#) | [logout](#) | [post blog](#) | [setup](#)]

WELCOME TO THE GRID WORKFLOW FORUM

[\[edit\]](#)

The Grid Workflow Forum is an open forum for information exchange and discussions about scientific and commercial approaches in the domain of [Grid Workflows](#). Everybody working at the intersection between workflow management and [Grid Computing](#) is invited to contribute to this forum. Please send an E-Mail to andreas.hoheise@first.fraunhofer.de (alias [bassheide](#)) if you want to be registered as an editor of this site.

This Site is maintained by [Fraunhofer FIRST](#) in the context of the EU projects [K-Wf Grid](#) and [CoreGRID](#).

Shortlinks

Events	Glossary	Grid Middleware	Hot Topics	Links
Projects	Research Fields	Researchers	Workflow Composition Tools	Workflow Description Languages
Workflow Engines				

NEWS

Tuesday, 17. April 2007

WORKFLOW WORKSHOP ON THE GERMAN E-SCIENCE CONFERENCE 2007 



During the [German e-Science Conference 2007](#) the [Instant-Grid Project](#) organizes a Grid-Workflow workshop with

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[start](#) > Workflow Description Languages

Workflow Description Languages

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A workflow language formalism is a formalism expressing the causal/temporal dependencies among a number of tasks to execute. A workflow language is a particular XML notation representing the inter-task dependencies. A formalism can underpin different languages.

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WORKFLOW LANGUAGES (SCIENTIFIC AND INDUSTRIAL)

- [AGWL](#)
- [BPEL4WS](#)
- [BPML](#)
- [DGL](#)
- [DPML](#) [Discovery Process Markup Language](#)
- [GJobDL](#)
- [GSFL](#)
- [GFDL](#) (Grid Flow Description Language)
- [GWorkflowDL](#) (Grid Workflow Description Language)
- [MoML](#)
- [SWFL](#)
- [WSCL](#)
- [WSCI](#) (Web Service Choreography Interface)
- [WSFL](#)
- [XLANG](#)
- [YAWL](#)
- [SCUFL/XScufl](#)

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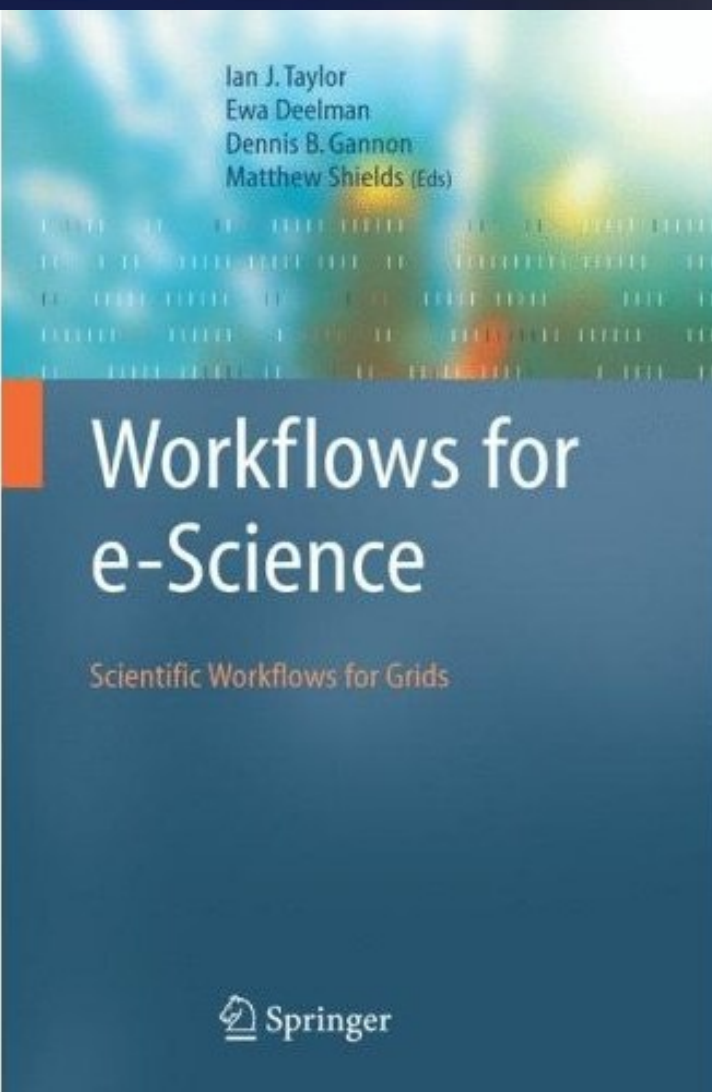
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Chapters

- Scientific versus Business Workflows
- Part I Application and User Perspective
- Part II Workflow Representation and Common Structure
- Part III Frameworks and Tools
- Part IV Future Requirements

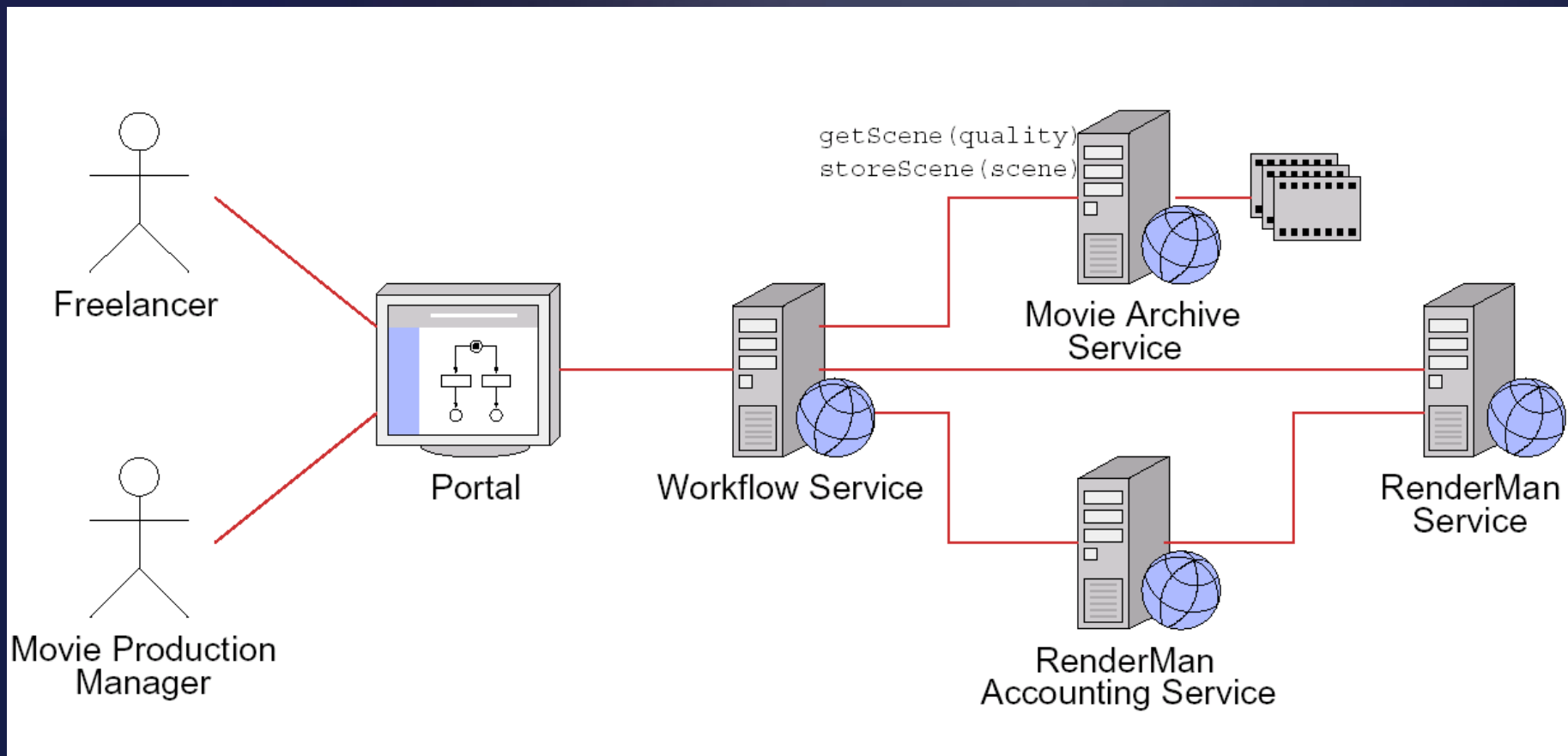
Keywords

- BPEL, DAG, Grid, Jini, Jxta, OGSA, OGSF, P2P, Petri Nets, SOA, SOAP, VO, Virtual Organizations, WSDL, WSRF, Web services, Workflow, e-Science, peer-to-peer

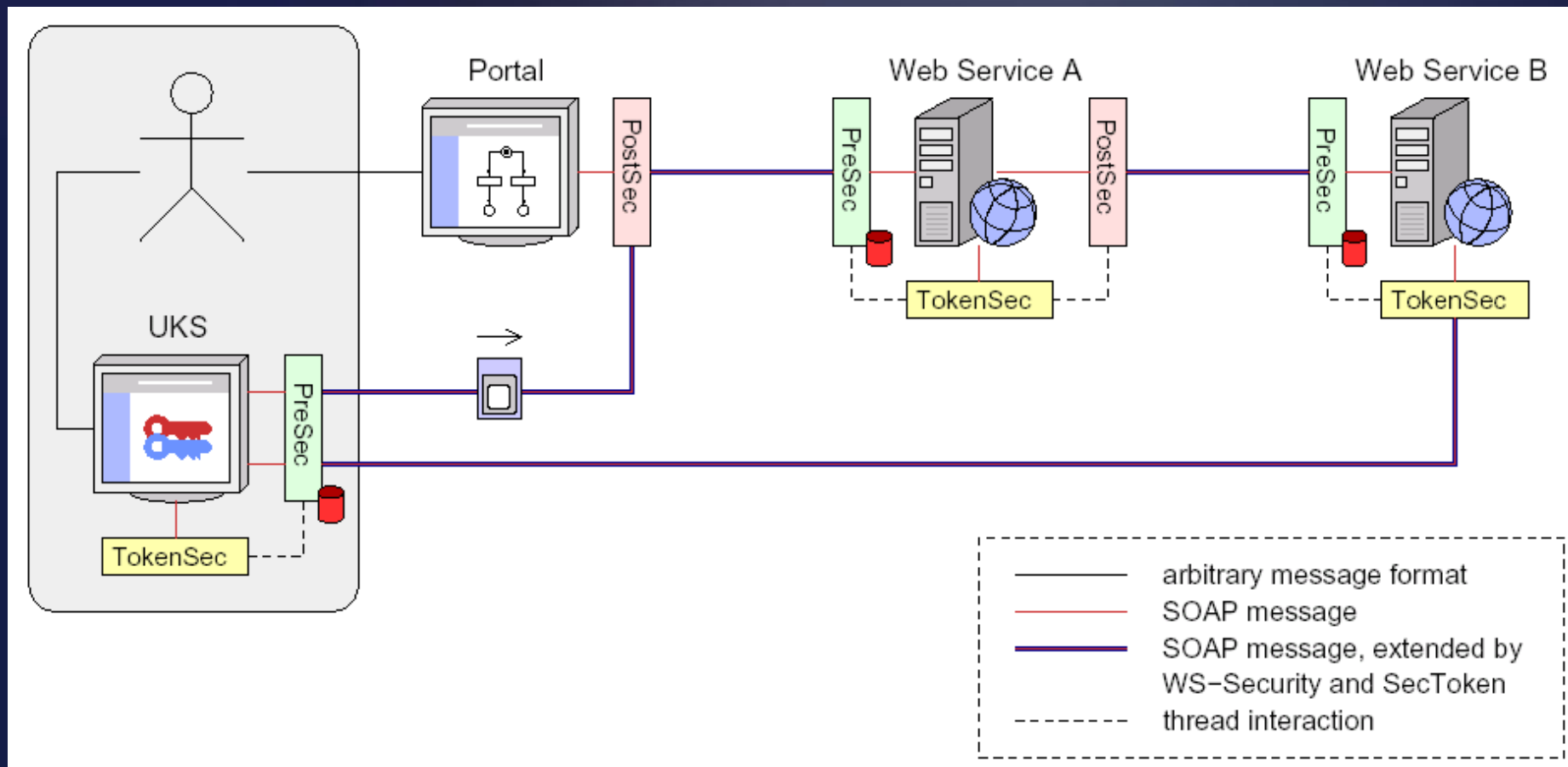
Workflow Research Groups

- **Fault tolerance in Grid workflow execution**
- **Review of Workflow Description Languages for Grid Scheduling**
- **Workflow description languages using high-level Petri nets**
- **Compatibility and conversion of different Grid workflow description languages**
- **Workflow-oriented Grid infrastructure for biomedical purposes**
- **Workflow Scheduling with P-GRADE and KOALA**
- **Security for Grid Workflows**

Security for Grid Workflows



Security for Grid Workflows



Technology Provided by Project Partners

- Taverna
- Triana
- Askalon
- Grid Workflow Execution Service (GWES)
- P-GRADE
- YAGSI
- ...

Discussion

- **Is BPEL the only solution?**
- **Is security for Grid workflows an industry-relevant issue?**
- **Is there a market for inter-enterprise IT workflows?**
 - **Supply chains**
 - **Industrial collaborations (e.g. construction of buildings)**