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Workshop on collaboration between workflow systems and their user communities

Wednesday, 28 March 2012 16:00 (1h 30m)

Description of the Work

User communities from all around Europe use many kinds of different workflow languages. Communities develop their workflows using one of the workflow engines. Workflow development, testing and validation is a time consuming process and it requires specific expertise. These limit the number of available workflows, so it is important to reuse them. Workflows developed for one workflow system is normally not compatible with workflows of other workflow systems. In the past if two user communities using different workflow systems wanted to collaborate, they had to create the workflows from scratch to transform them to the desired workflow languages. This situation can be resolved by emerging new workflow interoperability technologies. According to these new technologies publicly available workflows can be used by different research communities on different workflow systems and on multiple distributed computing infrastructures. One powerful solution is the SHIWA Simulation Platform that is provided for EGI communities by the SHIWA project.
The workshop will include presentations from the developers, providers and users of EGI workflow solutions, and from technology providers –including SHIWA –who focus on workflow integration. Communities who are interested in porting workflows to EGI, porting workflows between different workflow systems, porting workflows across different DCIs can hear about methods and tools by which use cases can be implemented. The aim of the workshop is to show how to integrate workflow systems and how to collaborate with each other through the integration, interconnection, embedding of workflows.

The workshop aims to cover the following topics:
1.Currently used workflow systems.
2.EGI's technology roadmap for workflow developers.
3.Facilities to publish, to share workflows and to port workflows between different DCIs.
4.Technical solutions for the integration of workflows, for the integration of execution platforms.

Conclusions

The workshop seeks to bring together existing and potential new user communities with workflow service developers and providers from EGI. It is expected to have several presentations about different developments and solutions in the field of workflow and workflow engine development, sharing and interoperability. The workshop would be the next part of the series of topical workshops organised by EGI.eu for the whole community on the topic of workflows.

Impact

The workshop aims to bring together members and supporters of DCI user communities, user support teams from NGI, VRCs and VOs, scientific groups that are not yet engaged with EGI. Attendees could learn about the services offered in terms of sharing and building workflows, integrating workflows, executing workflows

on multi-DCI workflow execution platforms. The SHIWA Simulation Platform is a prominent example of this offered to EGI communities by the SHIWA project.

The workshop should consist of at least two 90 minutes long session that will cover state of the art workflow and workflow sharing technologies, user scenarios and user community needs. The organizers of the workshop will invite representatives of the workflow system developers (e.g. for Taverna, Askalon, etc.) and representatives of workflow user communities (e.g. MoSGrid, etc.) to give talks on their tools, usage scenarios, requirements, etc. An additional 90 minutes session might be needed in case of a high interest. A third session used for structured discussions, facilitated by EGI.eu would be also useful.

URL

http://go.egi.eu/workflowworkshops, http://www.shiwa-workflow.eu/

Overview (For the conference guide)

Scientific workflow (or e-science workflow) emerged as a paradigm to formalize and structure complex scientific experiments supported by Distributed Computing Infrastructures. An e-science workflow is a formal specification of a scientific process to capture and to automate the analytical and computational steps from a simulation. Many of the EGI applications are also defined in the form of a workflow, several workflow languages and tools are available for EGI communities to use. The workshop will present the most widely used and emerging ones, with special focus on how the different workflows and their execution engines can be integrated to support the next level of collaboration among developers, users and providers of workflow systems.

The workshop is envisaged as an at least 2*90 minutes long session organised by the EGI-InSPIRE and SHIWA projects. Presentations into the workshop will be allocated by the CF PC and will be invited by the workshop organisers.

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Session Classification: Workflow Systems - Workshop