

Compute Client Consolidation and Harmonization in the EMI Project

Tuesday, 18 September 2012 14:30 (20 minutes)

Description of the work

This activity was started to survey the existing compute client solutions within and outside of EMI, and to recommend a way of harmonizing and consolidating them. We evaluated the new EMI-ES Clients, the existing WMS and CREAM clients, the UNICORE/X clients, the ARC clients, the L&B clients and SAGA. We surveyed their available platforms, features and capabilities (job execution, management, brokering, workflows, credential handling), users and user communities, programming languages, documentation status, developer efforts and post-EMI plans. Then we collected several scenarios for possible consolidation, and ranked them, recommending the three best ones. Then after the decision of the Technical Board of the EMI project the chosen one is put into the development plans of the final year of the EMI project.

Link for further information

https://twiki.cern.ch/twiki/bin/view/EMI/EmiJra1T2Compute_Client

Wider impact of this work

The consolidation and harmonization of the compute clients can result in a better quality client library shared and maintained by all the interested parties together. The developers of gLite, UNICORE and ARC can work together to provide a much better experience for command line users and application developers, by making this common library easier to use and also more powerful by providing access to the now execution service interface of EMI, and because this would be the only client providing this access, it has big impact of the future of the EMI-ES execution interface.

Printable Summary

The consolidation and harmonization of the compute client tools and APIs is an ongoing activity within the EMI project to reduce the maintainable code and to provide a higher quality software. This presentation will describe the decisions and the progress we made so far. It is aimed at software developers writing applications using client APIs, and at command line users of grid middlewares, who will gain an understanding how this development can affect their work.

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Track Classification: Resource Infrastructure services (Peter Solagna: track leader)