

Joint Task Force meeting between MAPPER and PRACE – Minutes of Meeting

10th January 2012

Participants: Giuseppe Fiameni (CINECA/PRACE) , Jules Wolfrat (SARA/PRACE), Krzysztof Kurowski (PSNC/MAPPER), Tomasz Plontek (PSNC/MAPPER), Mariusz Mamonski (PSNC/MAPPER)

PRACE comments:

- Advance Reservation (AR) as a new supported capability could be a problem for all PRACE sites at this stage
- It must be clear for admins how AR should be provided for MAPPER (including both technical and policy issues)
- There are natural candidates from PRACE to work closely with MAPPER: Tier-0 (LRZ, the only problem is that they are now within a transition/upgrade process), Tier-1: SARA (a manual AR allocation already used in the first demonstration), PSNC (a new hybrid machine will be available for MAPPER), and CINECA
- We should consider the software integration activity with carefully selected and commonly used queuing systems, namely Load Leveler, PBS Pro and Torque/Maui
- There are official procedures defined for end-users requesting new allocations on PRACE sites, so we have to make sure the Task Force efforts are not exceptions
- PRACE is now under a transition process from 1IP to 2IP, but it should not be a problem as similar technical people are involved in those two phases. 1IP is the project to further develop and operate the Tier-0 infrastructure and ends July this year while 2IP is for the further development and operation of the Tier-1 infrastructure and ends September 2013. Both projects also aim to integrate both infrastructures. So, it's not a transition but a coexistence.

MAPPER comments:

- We have collected a clear new requirement from end-user communities to synchronize in time the execution of multiscale simulations that are using more than one production sites (different hardware architectures), so AR is a natural way to deal with this requirement
- We have demonstrated during the first review that AR can be available and supported on a few EGI production sites thanks to a new core service called QCG Computing that must be installed and configured by admins on the top of a queuing system (see the diagram describing the AR process)
- In the first demonstration we have used an example PRACE site - SARA to use AR as it is supported now, meaning a manual process and negotiations with a local admin to create AR for a certain user. Then, we used UNICORE for job submission.
- We would like to automate the AR process and offer this capability to QCG Broker (see the diagram), in a similar step-by-step approach we have used for a few selected EGI sites, so the question is if and how to involve a few PRACE sites before forcing all to install/configure new core middleware services.
- MAPPER as a community has already submitted a request under PRACE's Programme Access
- Some MAPPER users have active allocations on PRACE sites
- A fully transparent access to core capabilities, in this context AR (including well defined APIs and protocols), is possible to offer. However, end-users will still use different programming and

execution environments based on experiences from the last decade

- Interesting presentation, including MAPPER requirements, has been presented by Peter Coveney
https://gridlab.man.poznan.pl/Meetings/Zakopane2012/Keynote_Peter_Coveney.pdf

Actions:

- Chris: Rewrite and send requirements collected in MAPPER for PRACE - deadline 24th January
- Giuseppe/Jules: Initiate a discussions around MAPPER requirements during the bi-weekly PRACE videoconf - 13th January
- Ilya: make sure some pilot MAPPER experiments can be performed on a Tier-0 LRZ machine in the future
- Giuseppe/Jules: Progress with an internal evaluation process of MAPPER core components - deadline end of May 2012
- Chris: to check with Ilya if he can speak of behalf of PRACE during the MAPPER seasonal school
- Chris: to check if external PRACE partners can join the MAPPER seasonal school

Based on e-mail from krzysztof.kurowski@man.poznan.pl

to: Jules Wolfrat <wolfrat@sara.nl>,
Richard Mclennan <richard.mclennan@egi.eu>
cc: Giuseppe Fiameni <g.fiameni@cineca.it>,
Axel Berg <Axel@sara.nl>,
Xavier DELARUELLE <xavier.delaruelle@cea.fr>,
Ilya Saverchenko <Ilya.Saverchenko@lrz.de>,
gabriele.carteni@bsc.es,
g.erbacci@cineca.it,
Mariusz Mamoński <mamonski@man.poznan.pl>