

Revised plan for ARC interoperability (related to MSA3.4)

Introduction

The EGEE SA3 review in Barcelona on May 25 showed that the work on this task was behind schedule and that only 3 PMs of manpower were left, out of 12 PMs in total. It was decided that the original plan was no longer feasible and that a revised plan for this task should be written and presented to the PMB for approval. Below the old plan is summarized along with the current status of the work then a revised plan is drawn up.

Old plan & Status

Demonstrating gLite-WMS to ARC job submission	Demo	06-09-01	On going
Setting up an ARC Runtime Env. Supporting WN-proxies (the delegated proxy is by default not available on ARC based WNs this can however be enabled through a special runtime env.) - (demonstrating file-transfer)	Prototype	06-10-01	
Outlining operational procedures	Report	07-02-01	
ARC resource registered in the GOC-DB with successful SAM tests	Demo	07-04-01	
All Nordic ARC sites reachable through interoperability	Demo	07-09-01	

Above is the relevant part of the plan along with its status from the MSA3.4 document. The work is still in the demonstrating WMS->ARC job submission, specifically the problem is in integrating the resourced published in the ARC-BDII into the available resources in the broker. This work has been stalling the progress of this task for a long time. The two other required parts of this sub-tasks have been completed. Namely creating an informationsystem that contains the ARC resources and making Condor-G support ARC job submissions.

As can be seen from the plan only the last demo is still capable of being on time.

New Plan

The 3 PMs remaining to this task is insufficient to fullfil the old workplan. Therefore we will revise the work to a realistic level, but that will still result in an acceptable outcome for this task. Each of the remaining sub-task will be treated separately.

Demonstrating gLite-WMS to ARC job submission

This is the most problematic part of the plan. The work has taken much longer than expected. The problem lies in understanding and properly integrating with the WMS. We therefore suggest a period where a developer from UKBH would sit together with the relevant JRA1 persons and finally decide whether the WMS approach is feasible. If not this approach should be abandoned and a gateway approach should be taken instead. This would involve setting up a dedicate gLite CE that has been modified to submit its jobs to NorduGrid instead of a batch system. A similar approach has been done in Canada for their Condor based Grid.

Runtime environment supporting proxy delegation

This feature has been requested by other sources than the gLite->ARC interoperability task. It has therefore been added to the Nordugrid bugzilla as a feature request. This sub-task will therefore be handled by NorduGrid(NG). Some integration will still be needed, but the majority will be done by NG, therefore reducing the needed manpower for this task.

Outlining operational procedures

What exactly does this cover?

ARC resource registered in the GOC-DB with successful SAM tests

As soon as the software infrastructure or the gLite CE approach is available the Morpheus test cluster at UKBH will be added to the GOC-DB and SAM test will be run. This can be done concurrently with writing the operational procedures. Completely passing a SAM test will be difficult for a NG-site. I suggest we narrow the scope of this to successfully passing relevant SAM tests. Like running production software on NG-clusters.

All Nordic ARC sites reachable through interoperability

A lot of time was allowed for this sub-task probaly much more than what was needed. As soon as all the middleware is sorted out, and the SAM tests have run on one site it should only be a question of pushing the new RTE from the second sub-task described above to all nordugrid sites. Nordic sites available in principle. It is still up to the sites to add the appropriate VO's. We cannot centrally force all sites to install glite->ARC RTE.

Plan

Decision on whether to proceed with WMS approach	15/6-2007
Demonstrating gLite->ARC submission (either way)	31/8-2007
Operational documentation	14/9-2007
GOC-DB and SAM test (Dependent on RTE from NG)	21/9-2007
NG sites available through interoperability	1/10-2007

Although this plan is 4 months long it should be feasible within the 3 PMs. Since some of the time will be spent waiting for work by partners to complete their work. This time can be spent on other

tasks.