**MoU – Milestone Report**

M1.4: Strategies for Service Monitoring and Management

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| Abstract  This report describes the strategies for service monitoring and management by the EMI project. |

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# Strategy for service monitoring

The revised EMI Technical development plan [1] lays down the EMI strategy with respect to service monitoring and service remote management.

i) For service monitoring, the short-term plan to follow is to meet the EGI requirement so that every EMI server-side product is delivered together with a monitoring probe. Currently, EGI is requesting external probes for NAGIOS system. Some probes have been developed during the EGEE project or provided by NGIs or other parties. EMI will take over the maintenance of these probes and incorporate them into the EMI software distribution. Furthermore, EMI will develop the probes for the EMI production services that currently have none.

This task, the "NAGIOS probes" task [2] is captured by the EMI technical objective X4 due by October 2011: "X4: Provide and support monitoring probes for EMI services (e.g. Nagios)."

The already available probes will be gradually released together with the EMI Kebnekaise updates while the complete set of probes are expected to be available latest by end of October 2011.  
  
On a middle and longer term, EMI will investigate other alternative technical solutions for service monitoring as long as community requirement is received for those. Currently, only Nagios probes are requested.  
  
ii) The service remote management task has a mandate to deliver a report on different alternatives with respect to service remote management interface with special focus on possible usage of messaging technology. The investigation is due by April 2012:

"I8: Investigate service remote management interface for the compute, data, security and infrastructure area services, including remote configuration change and service management, utilizing the  
messaging system."

When it comes to service remote management EMI is eager to listen to computing centers and NGIs and find out what sort of remote management infrastructure those would like to be delivered. Remote service management is an area where quick ad-hoc solutions are not appreciated and hardly ever reach deployment status. Therefore, EMI's principal strategy concerning remote service management is find out real customer needs and evaluate the eventually required development efforts behind. EMI will do this investigation in cooperation with EGI.

# Strategy for service Management

At the end of 2010, the EGI.eu OMB agreed to periodically consult NGIs to collect feedback on relevant topics, in particular on grid middleware aspects relevant to the operations community. Through January and February 2011 the first EGI-InSPIRE SA1 survey was run covering the following capabilities:

1. Logging and Bookkeeping Service: the survey contained a set of questions to help LB Team to better design the new features of the LB Service, and to target the real users' needs.
2. Remote Grid Service Management (RGSM) framework: EMI has a dedicated task force created to investigate the requirements for common service monitoring and management interfaces. The survey collected information and requirements to understand which technologies are of interest for service management.
3. Grid service Auditing (GSA): this is a feature that allows system administrators and users to check the status of a service in terms of load, length of internal queues, and to monitor service workload from a grid point of view over time.
4. gLite-CLUSTER: a service that allows the configuration of information related to the batch system environment to be separated from the configuration of the job submission interface. The survey aimed to understand how many sites need this feature.

The questions related to the first two topics were planned and agreed with representatives of the relevant EMI working groups (Ales Krenek and Jason Milad Daivandy).

During the 20 days of the survey, 13 responses were submitted by different NGIs (Asia Pacific ROC, Czech Republic, Cyprus, Georgia, Greece, Ibergrid, Italy, Norway, Poland, Serbia, Sweden, Switzerland). The responses were summarized in a set of slides and then shared during the 4th Technical Coordination Board (TCB) meeting on February 28th 2011 [3]. The EMI representatives that participated in defining the survey received also a copy of the results with all the data and documents prepared for the TCB. Despite the number of NGIs that provided answers was about one third of the number of partners, the survey provided some meaningful information to the involved EMI working groups.

# References

[1] [https://twiki.cern.ch/twiki/bin/view/EMI/DeliverableDNA132](https://twiki.cern.ch/twiki/bin/view/EMI/DeliverableDNA132" \t "_blank) (should be changed to proper link once the final version is out)

[2] Internal EMI Nagios page: [https://twiki.cern.ch/twiki/bin/view/EMI/NagiosProbes](https://twiki.cern.ch/twiki/bin/view/EMI/NagiosProbes" \t "_blank)

[3] 4th TCB Meeting https://www.egi.eu/indico/event/359