The Dashboard Grid Monitoring Framework

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The article introduces the "experiment dashboard". It is a web-based monitoring framework intended to monitor Grid activity with a special emphasis in providing support for users community (VO, virtual organisation). Existing tools are usually focusing onto a specific usage like specific Grid middleware/infrastructures, specific submission tool, etc. However VOs are using a variety of the middleware platforms and multiple job submission methods. Transparent monitoring of the VO computing activities independent of the underlying Grid technologies is a challenging task. Combining of the Grid related monitoring information and application level monitoring is another important requirement which experiment dashboard tries to satisfy. Collecting monitoring data coming from the distributed system in one central location permits to efficiently identify failures, draw correlations, etc.

The dashboard project [1] is now a mature project in reaching this level of monitoring carried in close contact with users. It is deployed for the four main LHC experiments (CMS, ATLAS, LHCb, ALICE). We would like to present the framework itself as well its current VO monitoring applications: cross-Grid job monitoring (LCG, OSG, NDGF) at Grid and application level, LCG site reliability, data-management monitoring.