

A local batch system abstraction layer for global use

Wednesday, 15 February 2006 09:00 (20 minutes)

In current, widely deployed management schemes, intensive computing farms are locally managed by batch systems (e.g. Platform LSF, PBS/Torque, BQS, etc.). When approached from the outside, at the global (or 'grid') level, these local resource managers (LRMS) are seen as services providing at least a basic set of job operations, namely submission, status retrieval, cancellation and security credential renewal. The Batch-system Local ASCII Helper Protocol (BLAHP) was designed to offer a simple abstraction layer over the different LRMS, providing uniform access to the underlying computing resources. In order to preserve the simplicity and portability of the scheme and the robustness of the implementation, the functionality in the abstraction had to be carefully limited. In this paper we briefly describe the BLAH protocol and daemon design, focusing on the design and deployment considerations leading to the chosen abstraction. The daemon, originally developed for the EGEE gLite Condor-based Computing Element, is going to be used by Condor also outside the gLite framework. It is also a component of CREAM, the Web Services oriented Computing Element for gLite.

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Session Classification: Poster

Track Classification: Grid middleware and e-Infrastructure operation