

The gLite Workload Management System

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The gLite Workload Management System (WMS) has been designed and developed to represent a reliable and efficient entry point to high-end services available on a Grid. The WMS translates user requirements and preferences into specific operations and decisions - dictated by the general status of all other Grid services it interoperates with - while taking responsibility to bring requests to successful completion.

The WMS, conceived to be a robust and scalable service, implements an early binding approach to meta-scheduling as a neat solution, able to optimise resource access and to satisfy requests for computation together with data. Thanks to the modularity of its design it can be deployed in different physical layouts according to specific needs.

Several added value features are provided on top of job submission, different job types are supported from simple batch to a variety of compounds, all described in this paper.

As of late 2008, activity on the WMS has been addressing interoperability with NorduGrid and UNICORE, supporting JSDL specifications while contributing to the GIN profile design, reviewing support for MPI jobs in a more flexible way and enabling submission to CREAM CE. Code restructuring has been finalised to accommodate for IPv6 compliancy and delegation 2.0.0, also bringing a more stable and lightweight User Interface. Portability has been favoured by the transition to ETICS.

This paper reports on the present and next to come releases - the latter being characterized by improved responsiveness and higher throughput. Short to middle-term plans will be detailed.

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