WMSMon
gLite-WMS/LB Monitoring Tool

Enabling Grids for E-sciencE

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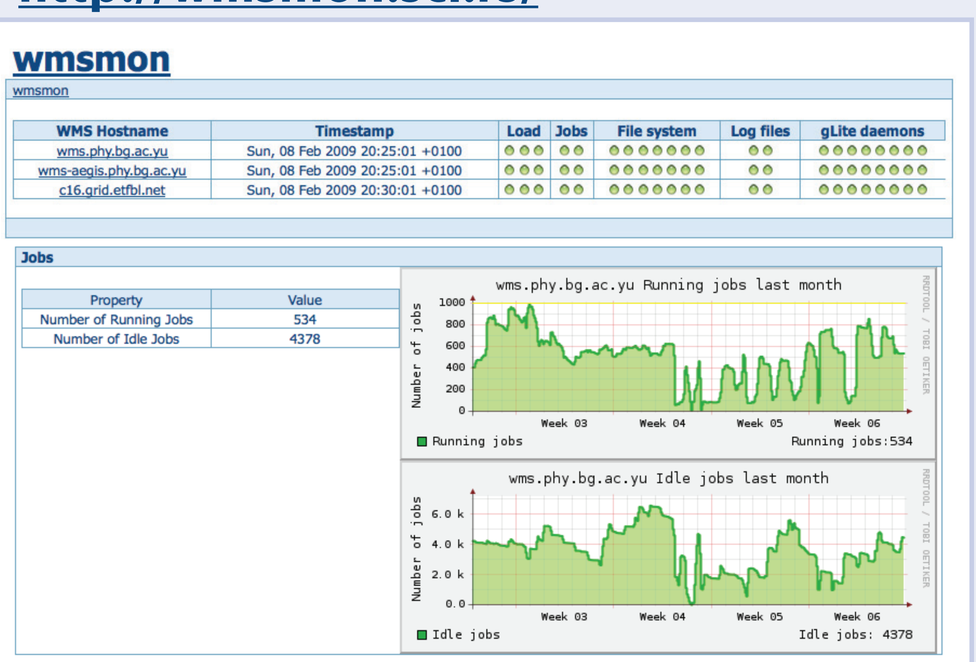
Overview and Motivation

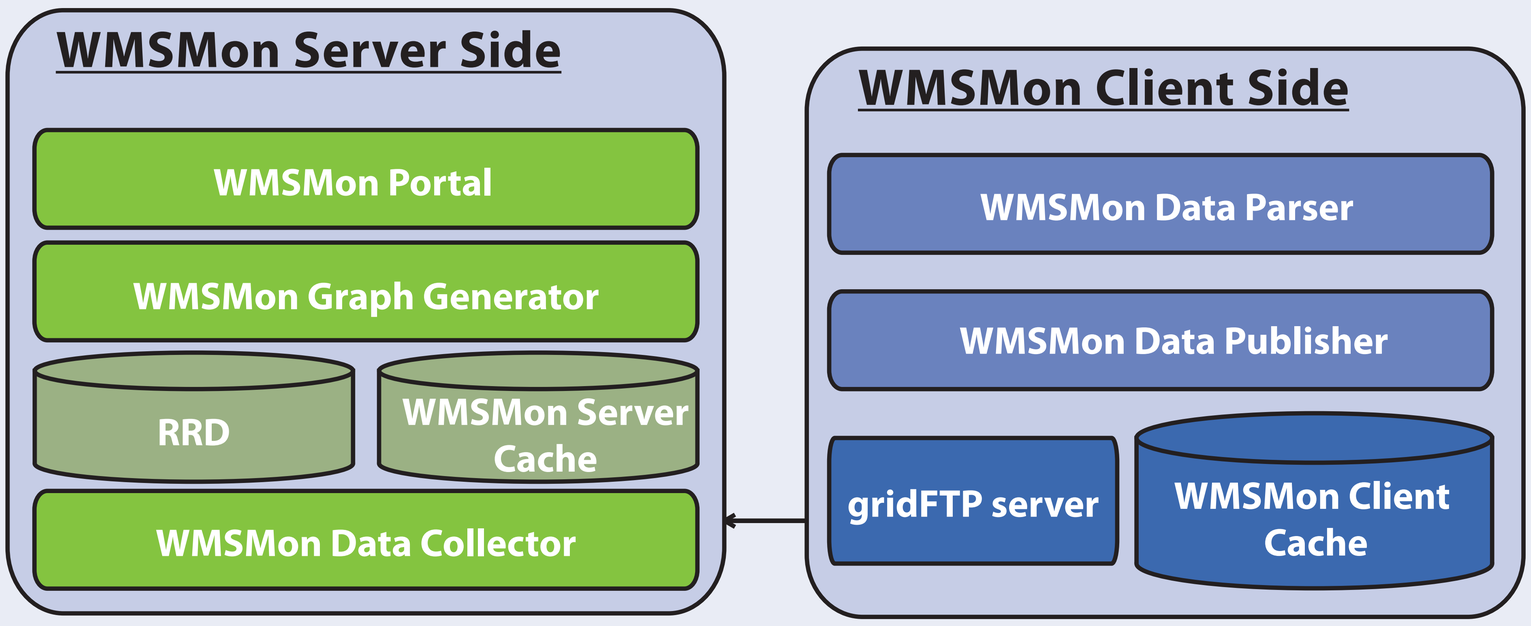
- In gLite-based Grid infrastructure, complex task of discovery and management of resources is performed by the Workload Management System (WMS) and Logging and Bookkeeping (LB) services
- Current implementation of Grid Service Availability Monitoring (SAM) framework does not include direct probes of gLite-WMS/LB
- WMSMON tool provides extensive monitoring of the status of gLite-WMS/LB services, as well as the status of the server machine
- Currently deployed by the SEE-GRID-SCI and AEGIS Grid e-Infrastructures

http://wmsmon.scl.rs/



Architecture and Implementation

- Client-server architecture
- Client locally aggregates the values of all relevant parameters
- Client is composed of data parser and data publisher
- Server collects the data from all clients
- Server consists of the data collector, collector cache, database, and graph generator
- Data caches keep the values of monitored properties until they are transferred
- GridFTP service ensures high-performance, secure and reliable data transfer
- Round Robin Database (RRD) as a back-end database
- Web portal presents information from diverse glite-WMS/LB sources
- Released as RPM packages available from SCL RPM repository http://rpm.scl.rs/



Features

- Site independent, centralized and uniform monitoring of gLite-WMS/LB services
- Aggregated and detailed status view
- Daily, weekly, monthly and yearly graphs
- Monitoring of properties relevant to successful operation of gLite-WMS/LB service
  - Load averages (1, 5 or 15-minute average)
  - Job queues properties (WMProxy, JobController, CondorC)
  - File system properties (Sandbox, MySQL, inodes)
  - Log files properties
  - Availability/responsiveness of services/daemons
- Data cache ensures that there will be no loss of information in the case of broken network
- Links to the appropriate troubleshooting guides
- Distinguished Name (DN) based authentication
- Easy addition of monitored properties
- Easy identification of operational problems
- Assessment of hardware, software, and performance bottlenecks

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The EGEE project is building a Grid infrastructure for the scientific community. Grids are networks of computers spread across many sites but able to act together to provide a range of large scale facilities, from incredible processing power and mass storage to a platform for international collaboration.

www.eu-egee.org

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