The 7th International Conference "Distributed Computing and Grid-technologies in Science and Education" (GRID 2016)



Contribution ID: 98

Type: Sectional reports

Web-service for monitoring heterogeneous cluster "HybriLIT"

Tuesday, 5 July 2016 15:45 (15 minutes)

The heterogeneous cluster HybriLIT is designed for the development of parallel applications and for carrying out parallel computations asked by a wide range of tasks arising in the scientific and applied research conducted by JINR. The efficient work on the cluster needs the implementation of service of statistics provided to the users.

Even though tasks of monitoring of distributed computing and gathering its statistics are encountered more and more frequently, there is not so many well-known methods to do this. We developing web-service for hybrid heterogeneous cluster "HybriLIT", that solves that task using Node.JS as it's server and AngularJS for a presentment of data. Monitoring itself carried out by a sensor written on C++ with the using of libgtop library. At the moment functions of monitoring CPU load, memory load, network load of the computing node and browsing that data in both table and graphical form are already implemented. Also, there are diagrams of usage for different laboratories and users, information about currently running jobs and an archive table for a jobs that was computed on a cluster.

Primary authors: Mr MAYOROV, Aleksandr (JINR); BULATOV, Andrey (State University Dubna, JINR); Mr PODOLYAN, Gleb (JINR); VALA, Martin (JINR); Mr BUTENKO, Yurii (JINR)

Presenter: Mr BUTENKO, Yurii (JINR)

Session Classification: 2. Operation, monitoring, optimization in distributed computing systems

Track Classification: 8. High performance computing, CPU architectures, GPU, FPGA