Contribution ID: **816** Type: **Oral**

Evaluation of JINR computing resources performance with DIRAC

Tuesday, 10 November 2020 14:45 (15 minutes)

The evaluation of the performance of computing resources is important for workload distribution and workload planning. It is usually done with standard benchmark tools. The most well-known benchmark in grid infrastructures in High Energy Physic is HEP-SPEC06. This benchmark is based on industrial benchmark SPEC06. Running of HEP-SPEC06 takes a substantial amount of time but gives a precise estimation of the computing performance of one worknode. DIRAC interware uses the DB12 benchmark for performance estimation. It takes less than a minute to run and gives estimations very close to HEP-SPEC06. When a job is executed on a resource by DIRAC DB12 benchmark test is performed and results are saved in the database. That means that there is no need to stop operations on computing resources to estimate full performance. It just requires to aggregate information about all individual DB12 results. Aggregation of benchmark results was done in JINR on all big computing components: Tier1, Tier2, Govorun supercomputer, Cloud, and NICA cluster. It did not require to send dedicated jobs since DIRAC was actively used for Monte-Carlo generation by MPD experiment. Tier1 results show good correspondence between HEP-SPEC06 and DB12.
The studies in this direction were supported by the RFBR special grant (“Megascience –NICA”), №18-02-40101.

Primary author: PELEVANYUK, Igor (Joint Institute for Nuclear Research)

Presenter: PELEVANYUK, Igor (Joint Institute for Nuclear Research)

Session Classification: Information Technologies

Track Classification: Information Technology