

Opportunistic computing resources for the Czech WLCG Tier-2

The Czech WLCG Tier-2 center is hosted in the Computing Center of the Institute of Physics of the Czech Academy of Sciences (FZU) in Prague. Resources at the FZU are supplemented by disk servers at Institute of Nuclear Physics (NPI) and by compute servers at the Faculty of Mathematics and Physics of Charles University. The available dedicated computing capacity for supported LHC projects ALICE and ATLAS are not sufficient to fulfill required share of CPU resources. Therefore, we use all other possibilities to increase the total computing power. The biggest external contribution is from supercomputers operated by the National Supercomputing Center IT4Innovations in Ostrava. Access to these supercomputers is subject to competition in the open calls and is not guaranteed in the long term. Also, when we use dedicated CPU time, we can access those supercomputers only in very restricted mode in preemptive queues.

The FZU Computing Center hosts clusters dedicated to different groups with separate management and different batch systems. Since two such clusters for local users have some periods with lower usage, we integrated them to the automatic submission system of the ATLAS experiment in a very similar way as the distant supercomputers in the IT4Innovations. The clusters availability for local users is not affected, they observe only a short increase in the waiting time of the queued jobs. We compare the usage of the local system to the longer experience with running jobs at IT4Innovations.

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