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Tier-1 in Kurchatov Institute: status before Run-2 and HPC integration

We present the status of RRC-KI-T1, new Russian Tier-1 that supports ALICE, ATLAS and LHCb. Our aim is to enter the full production mode just before the beginning of Run-2 and we will talk about our current setup, deployed services and middleware, workflow, achievements and problems on the route of bringing yet another Tier-1 for WLCG.

Another facet of our current activity is making the parts of the processing resources at our HPC facilities to be available for Grid on-demand usage. This requires us to adopt our HPC environment to be able to process Grid jobs, to use the storage at our Tier-1 as the native storage element and to adopt site-level services for interoperability with HPC parts. We also collaborate with Kurchatov Institute BigData laboratory that adopts PanDA workload management system for HPC environments in the context of ATLAS and ALICE workloads, the task that also requires major tweaks of HPC worker nodes to incorporate them into PanDA and WLCG environments. We will present our hardware and software architecture that powers such integration and results of test for its real-world usage.

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