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Setting up Tier2 site at Golias/ Prague farm

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High Energy Nuclear Physics (HENP) collaborations'experience show that the computing resources available from a single site are often not sufficient nor satisfy the need of remote collaborators eager to carry their analysis in the fastest and most convenient way. From latencies in the network connectivity to the lack inter-activity, having fully functional software stack on local resources is a strong enabler of science opportunities for any local group who can afford the time investment. The situation become more complex as vast amount of data not fitting on local resources are often needed to perform meaningful analysis.

Prague heavy-ion's group participating in the RHIC/STAR experiment has been a strong advocate of local computing as the most efficient way of data processing and physics analyses. To create an environment where science can freely expand, a Tier2 computing center was set up at a regional Golias Computing Center for Particle Physics. Golias is the biggest farm in the Czech Republic fully dedicated for particle physics experiments. We report our experience in setting up a fully functional Tier2 center leveraging minimal locally available human and financial resources. We discuss the chosen solution to address the storage space and analysis issue and the impact on overall functionality. This includes locally built STAR analysis framework, integration with a local DPM system (as a cost effective storage solution), influence of the availability and quality of network connection to Tier0 via dedicated CESNET/ESnet link and the development of light-weight yet fully automated data transfer tools allowing moving entire datasets from BNL (Tier0) to Golias (Tier2). We will summarize the impact of the gained computing performance on the efficiency of the offline analysis for the local physics group and show feasibility of such a solution that can used by other groups as well.

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