Interoperation with Infrastructures and VO Production Systems: the NDGF-EGEE and NDGF-PanDa Cases

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The Compute Grid Infrastructure of the Nordic Countries is based on the middleware NorduGrid ARC (Advanced Resource Connector). It is a thin layer on top of the cluster batch systems and handles besides from Authentication, Authorization, Accounting and local Job Submission also the staging and caching of computational input and output data to and from other storage systems.

The setup has proved a very high degree of efficiency through task parallel operation. In order to utilize the NorduGrid ARC compute infrastructure production systems need to be aware of the right interface. This is the case for e.g. the PanDa system used for the CERN/ATLAS production. However, for smaller VOs great effort has often been put into interface to the wide spread gLite based EGEE grid and hence interoperability with this system can be of benefit for a wide range of scientific computing users. We present here how the NDGF part of the NorduGrid leverages various levels of interoperability either through interoperability with VO production systems or with interoperability with other middlewares.

Further, we present how a monitoring and accounting system have been put together in a way that enables interoperation of this multi facetted compute infrastructure with other infrastructures.