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A prototype of a dinamically expandable Virtual Analysis Facility

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Current Grid deployments for LHC computing (namely the WLCG infrastructure) do not allow efficient parallel interactive processing of data. In order to allow physicists to interactively access subsets of data (e.g. for algorithm tuning and debugging before running over a full dataset) parallel Analysis Facilities based on PROOF have been deployed by the ALICE experiment at CERN and elsewhere. Whereas large Tier-1 centres can afford to build such facilities at the expense of their Grid farms, this is likely not to be true for smaller Tier-2s centres. Leveraging on the virtualisation of highly performant multi-core machines, it is possible to build a fully virtual Analysis Facility on the same Worker Nodes that compose an existing LCG Grid Farm. Using the Xen paravirtualisation hypervisor, it is then possible to dynamically move resources from the batch instance to the interactive one when needed. We present the status of the prototype being developed.

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