

GlideCAF - A Late-binding Approach to the Grid

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Higher instantaneous luminosity of the Tevatron Collider forces large increases in computing requirements for CDF experiment which has to be able to cover future needs of data analysis and MC production. CDF can no longer afford to rely on dedicated resources to cover all of its needs and is therefore moving toward shared, Grid, resources. CDF has been relying on a set of CDF Analysis Farms (CAFs), dedicated pools of commodity nodes managed as Condor pools, with a small CDF specific software stack on top of it. We have extended this model by using the Condor glide-in mechanism that allows for the creation of dynamic Condor pools on top of existing batch systems, without the need to install any additional software. The GlideCAF is essentially a CAF plus the tools needed to keep the dynamic pool alive. All the monitoring tools supported on the dedicated resource CAFs, including semi-interactive access to the running jobs and detailed monitoring, have been preserved. In this talk, we present the problems we have encountered during the implementation of glide-in based Condor pools and the challenges we have in maintaining them. We also show the amount of resources we manage with this technology and how much we have gained through it.

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