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Date published:

Tuesday, 30 August, 2016

Document type:

Summer student report

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On high performance computing (HPC) resources, users have less control over worker nodes than in the grid. Using HPC resources for high energy physics applications becomes more complicated because individual nodes often don't have Internet connectivity or a filesystem configured to use as a local cache. The current solution in CVMFS preloads the cache from a gateway node onto the shared cluster file system. This approach works but does not scale well into large production environments. In this project, we develop an in memory cache for CVMFS, and assess approaches to running jobs without special privilege on the worker nodes. We propose using Parrot and CVMFS with RAM cache as a viable approach to HEP application delivery on HPC resources.

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