Sample Project: Central Monitoring Facility for CernVM-FS

Code	PH2402
Programme	TRAIN-PTES
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Title

Central Monitoring Facility for CernVM-FS

Description

The CernVM-File System ([1], CernVM-FS) is a read-only file system designed to deliver software to grid worker nodes over HTTP in a fast, scalable and reliable way. In recent years it became the de-facto standard method to distribute HEP experiment software in the WLCG and is more and more adopted by other grid computing communities outside HEP.

Currently CernVM-FS has a basic monitoring system allowing to check the status of the Stratum 0 and of the related Stratum 1 replicas [2]. In this project we propose to implement a central monitoring facility, in form of a website or a web API, allowing to monitor all possibly relevant information, including access statistics, accounting, configuration settings.

[1] http://cernvm.cern.ch/portal/filesystem

[2] http://cernvm-monitor.cern.ch/cvmfs-monitor

Skills

Information Technologies: Building web applications (e.g. with jQuery, HTML5), Using web application frameworks (e.g. Django, GWT, APEX). Programming Languages: C++, Perl, Python, Shell Script linux, networking, monitoring technologies

Disciplines

Information Technologies

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