

# Improve user-facing documentation of the Cern-VM FileSystem - HEP Software Foundation

## About Cern-VM FileSystem (CVMFS)

CVMFS (current version 2.10.1, first release in 2008) is a BSD3-licensed POSIX read-only file system in user space (a FUSE module) that is highly specialised in distributing software. CernVM-FS is actively used by small and large High Energy Physics (HEP) collaborations, and, to a smaller extent, in Nuclear Physics, Astrophysics and in some High Performance Computing Centers. In many cases, it replaces package managers and shared software areas on cluster file systems as means to distribute the software used to process experiment data.

## About this project proposal

CVMFS has a client-server architecture, with different audiences of users for both parts: The setup of the server is usually done by a few select specialists who need comprehensive detailed technical information. The client has a much wider audience of users that may just need to install the software and do a quick setup to access the /cvmfs filesystem. While all information is present in the user-facing documentation [cvmfs.readthedocs.io](http://cvmfs.readthedocs.io), the current structure does little to guide users and misses some “tutorial”-like sections for commonly used tasks.

## Project Scope

A writer participating in the project “Improve user-facing documentation of the Cern-VM FileSystem” should:

- Audit the existing documentation and create a friction log of the current structure when seen through the lens of users of the client or server
- Using the friction log as a guide, propose a reorganization of the documentation that lets users find and discover relevant information faster.
- Extend the “Getting started” section with a few selected, tutorial-like examples (starting a kubernetes cluster, using cvmfs in HPC centers)
- Audit selected resources from other sources (Github repository README’s, IT operator manuals, documentation of downstream projects) for inclusion in the main documentation
- Incorporate feedback from documentation testers (volunteers in the project) and the CVMFS developers
- Work with the release team to update the documentation on [cvmfs.readthedocs.io](http://cvmfs.readthedocs.io)

Work that is out-of-scope for this project:

- This project will not update or add any technical content or code documentation; if needed this shall be supplied by the developers

## Measuring project success

The CVMFS forum <https://cernvm-forum.cern.ch/> sees an average of 40 support messages per month. We would expect the restructure of the documentation reduce this number significantly.

We will track page views and support questions would consider the project successful if, after publication of the new documentation:

- The number of questions answerable by a link to the documentation decreases by 20%
- The page views of the most widely components increases, indicating users are finding relevant information faster

## Timeline

Dates	Action Items
May	Orientation
June - August	Audit existing documentation and create friction log
September - October	Restructure documentation and write scenario tutorials
November	Project completion

## Project budget

Budget Item	Amount	Running Total	Notes/Justifications
Technical writer audit, update, test, and publish new documentation	7500.00	7500.00	
TOTAL		7500.00	

## Additional Information

CVMFS has participated in GSoc before (for example: <https://summerofcode.withgoogle.com/archive/2021/projects/5539477996437504>) and one of us (Jakob Blomer) has experience working with a Technical Writer from GSoD in the context of the ROOT project.

## Project Mentors

- Valentin Volkl ([valentin.volkl@cern.ch](mailto:valentin.volkl@cern.ch))
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