Symcloud doc

true

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1 Introduction

The idea for this project was founded in the context of my thesis 2014/15. My intention was to create a cloud-application like owncloud with a modern framework symfony . This environment should help the project that be used and further developed by a community.

I have traced the owncloud project since the first release and like the software a lot. With my work on the open source CMF Sulu I have noticed the power of a big community. Because of these two reasons, I have decided to combine them in my master thesis.

1.1 Struture of Work

Master Thesis will be written in german, because it costs me a lot of time to write a lot of text in a proper english. But for the community i will write the documentation in this repository in english. The important Sections of the thesis i will translate in english for the documentation.

The work is seperated in two big sections. One is a Concept section which describs important System parts like: UI, Rest API, Data Storage and Syncronization of data.

The second section contains the implementation of a prototype which is should contain:

- UI concept implementation
- Rest API for Files and User (and all the other necessary APIs to implement ui)
- Data Storage abstraction
- Implementation of one or more (perhaps for comparison) implementations of the abstraction
- Prototype software to synchronize data (or use mirall from owncloud with a webdav interface of the api)

1.2 Data Storage

Topics that should be considered in the data storage: versioning, sharing, security, compression and encoding.

- Content Repository

    - Pro: Versioning, tree like structure, …
    - Contra: slower than other, versioning of big files and garbage collection?

- Git-Repository

    - Pro: Versioning, tree like structure, compression of data
    - Contra: Sharing of partial repositories

- Folder Structure

    - Pro: Easy to handle, one to one mapping, …
    - Contra: Security, …

1.3 Sync

There are several ways to Synchronize data. These three sounds interesting.

- webdav and mirall from owncloud

    - automatic upload changed files

- diff sync

  - sync only diff patch files
  - git like interface with commit

- git sync

  - use git to upload and versioning
  - automatic commit (or manuall)