Interconnected Private Clouds for Universities and Researchers

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Sharing in on-premise storage clouds

• Sharing made very easy

• A successful model

Users sharing files in CERBox (subset)
22K shares, 105 CERN groups, 320 External institutes

Jupyter Notebooks
0 kB, seconds ago
Sharing

Share with users or groups ...

Jakub Moscicki

write + delete

Share link

Password protect
Allow editing
Set expiration date

09-10-2017
The public link will expire no later than 365 days after it is created
Edu&Research On-Premise Clouds

Source: http://cs3.ethz.ch
Global & Travelling User Community
Collaboration without borders

• *I want to share and collaborate on my files & data with colleagues from University X*

• This should be as easy as sending email: it works across administrative borders and no matter who & how provides your mailbox
Open Cloud Mesh

- interconnected, secure private clouds

- universal file access with privacy, control and security an on-premises cloud provides.
Who is engaged?

- Idea developed by C. Schmitz/ownCloud
  - initial implementation of “Federated Sharing” provided in ownCloud 8 and deployed in many sites
- Commercial interest
  - 3 companies already implemented the initial specification
  - 2 others express interest
Who is engaged? (2)

=> Towards vendor neutral specification

- GEANT Project setup
  - https://wiki.geant.org/display/OCM/Open+Cloud+Mesh

- Pilot users:
  - Edu&Research community is a natural candidate for this use-case: many collaborating institutes
  - Critical mass of clouds (and users) exist already
(Some) future opportunities

• Bring top-end science closer to K12 Education
  
  • *I want to make my science (analysis, data, pictures, plots, …) easily accessible to students in High Schools*

• Explore Federated Sharing in informal learning paths

  • *Up to University — Up2U — GEANT-led project about to start*

• Example: Sharing Educational Notebooks (based on Jupyter Technology)

• Related contributions @ CHEP2016:

  • **Talk:** SWAN: a Service for Web-Based Data Analysis in the Cloud, Track 6, Wednesday, 12 Oct 2016, 11:45

  • **Poster:** CERNBox: the data hub for data analysis
CS3 Workshop Series

- Next event gathering OCM participants and contributors