Quick Overview

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On behalf of the project team

Courtesy of Ron T.
Content

• Funding
• People
• Distribution Channels
• H2020
• Activities
  – Development
  – Collaborations
• dCache strategy
Update: Funding and Partners

• Organizations:
  – FERMllab
  – DESY
  – NDGF
  – HTW Berlin (through LSDMA)

• Projects:
  – LSDMA (Germany) completely replacing EMI
Update: People

- FERMILab: Dmitry and Al
- NDGF: Gerd (Temporarily quite busy)
- THW Berlin (Students): Leonie, Jana and Tom
- DESY: Karsten, Christian, Paul, Tigran and Patrick (missing Antje)
- Support: Aachen (Oleg), KIT (Xavier), Munich (Christoph)
- Considering to join: Jülich (Bastian, André)
Consequence of no Antje

- Book updates are delayed.
- Tickets are delayed
- We’ll have to reassign those tasks at the developers meeting next week.
- Volunteers are welcome…..
Software Distribution Channels

• Separate presentation on release policies by our Release Manager, Dr. Millar, later today.
• No EMI distribution any more
• Still distributing through EGI (UMD)
  – If you have strong opinions on that, we can discuss this during Pauls ‘release policy’ presentation.
• However, mostly from the dCache web pages.
New EC funding period (H2020)

• dCache/DESY involved in some initiatives which might result in one or more H2020 proposals
  – HEP Software Collaboration
  – EU-T0 (Big data & Cloud)
  – DIRAC (possibly two proposals)

• In case you know about an upcoming proposal, where dCache would fit in, let me know. End of the day, you benefit. (e.g. as it was for EMI)
Industry Contact

- dCache started contacts with 'DCORE', a Swiss software company.
- New product: CUBEPAD
- They are planning to have dCache as the backend.
- Financial and legal agreements are very difficult.
- They need special licenses.
Activities (Deployments)

• FERMILab deployments
  – Building up the CMS-T1 disk only system
  – Building a 2 Petabytes “Intensity Frontier” dCache system (Neutrino and Myon physics)
  • Evaluating NFS 4.1; helping us to fix issues.
  • Adding more dot-commands for operations like
    – Get location (CUSTODIAL, … )
    – Get Checksum
    – Plus actions
  • Evaluating “storage federations” using the CERN DM Http Federation System (we have a presentation on the dyn. Fed.)
Activities (Development, )

• Optimizing tape access for “Small Files”
  – Karstens presentation

• Cloud integration (Patricks presentation):
  – Integrating cloud semantics into dCache
  – Integrating cloud software (ownCloud) into dCache

• Fast data ingest, for DESY Photons Science
  – This is not about data rates but about “File create rates”
  – Tigran is working on this topic
  – As fast ‘file create’ often means small files, this is strongly related to the ‘Small Files for Tape’.
Activities (Development)

- Redesign of the “Resilient Mgr”
  - See Al’s presentation
- dCache plug-in mechanism extended to support the HSM interface.
  - Gerd
  - No mediate benefit. But makes it customizable (plug-ins)
- Possibly integrating SAML access to dCache.
  - Pauls presentation
Activities (with others)

• In the LSDMA, HTW Berlin student context:
  – Leonie investigates Cloud in dCache
  – Jana implements CDMI
  – Tom evaluates ‘end to end’ encrypted WebDAV client for mobile devices.

• With CERN DM and SLAC:
  – Improving xrootd support in dCache (meetings with SLAC and CERN xrootd people)
    • Small list of issues we solve step by step
    • Regular phone meetings with SLAC & CERN
  – Supporting Fabrizios storage federation with HTTP/WebDAV.
    • Servers running at CERN and DESY (Fermilab)
Activities with others (cont)

- Keeping in touch with GlobusOnline folks
  - In Background: adding or fixing things you need when using GlobusOnline with dCache.
  - Let us know if you have particular issues with GO
- Involved in the EGI Federated Cloud Activities
  - Federated Identity Management
  - CMDI for Cloud Storage Access
- Federated Identity and Storage in LSDMA
Strategies
You might remember the master plan

- High Speed Data Ingest
- Fast Analysis
  - NFS 4.1/pNFS
- Wide Area Transfers
  - (Globus Online, FTS)
  - by GridFTP
- Sync & Share
  - by WebDAV
- Resilient Mgr
  - Small Files
Summary

• Funding and number of people is ok.
• Development
  – Big Data, fast analysis
  – Cloud semantics
• Interesting new communities
  – Intensity frontier (FERMIIlab)
  – Photon Science (here at DESY)
  – Human Brian people in Juelich
• Putting efforts to get H2020 funding
  – Would we really benefit ?
Enjoy the Workshop

further reading

www.dCache.org