WebFTS
File Transfer Web Interface for FTS3

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http://www.eudat.eu/3rd-eudat-conference
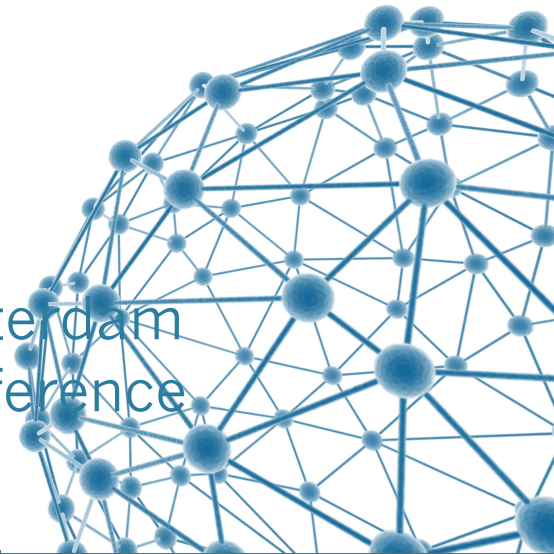
What is WebFTS?

- Web based tool to transfer files between grid/cloud storages

- Modular protocol support
  - gsiftp, http(s), xrootd and srm
  - Cloud extensions: dropbox

- Development funded by

Provide access to leading technology

- ## Based on FTS3
  - FTS3 is used for the LHC data distribution
  - Powerful and reliable technology transferring more than 20PB per month (record 2PB/day!) and able to handle different protocols

- ## Enabling transfer capabilities for individuals and small teams
  - Web interface focused on usability and simplicity

Security

- **Simpler access while keeping the same level of security**
  - X509 + Oauth for Dropbox
  - Transparent delegation of credentials

- **Avoid storing or transferring any sensitive data**
  - Open access to all source code
  - All sensitive information is used within the browser and forgotten

Additional Features

- **Check-summing** and **file overwriting**
- Possibility to **resubmit** transfer jobs or only-failed files transfers.
- Storage Endpoints **Auto-completion**
  - For endpoints published on the BDII (EGI and WLCG Information System)
- Support for **LFC Registration**
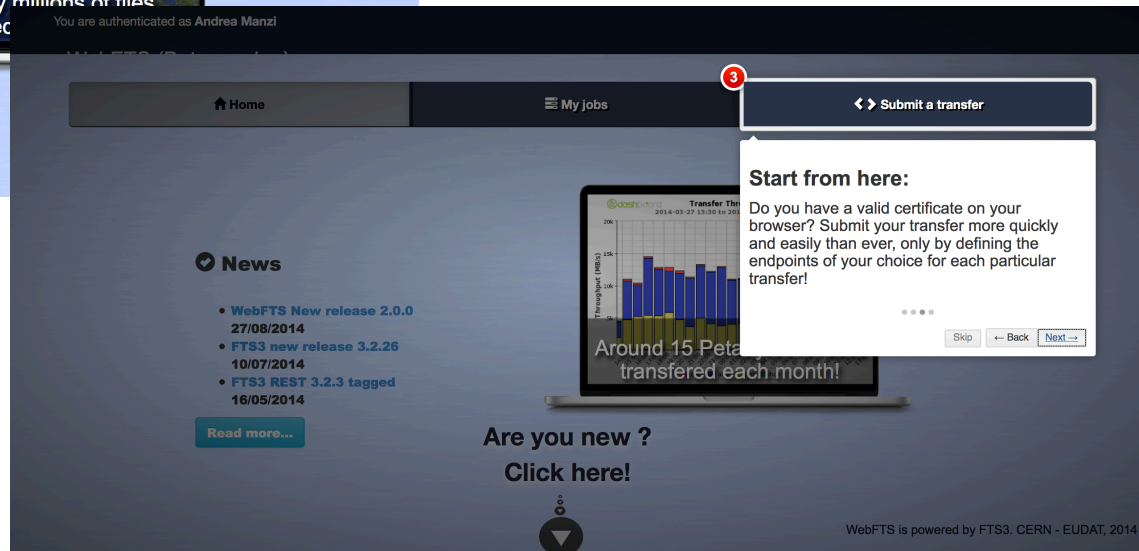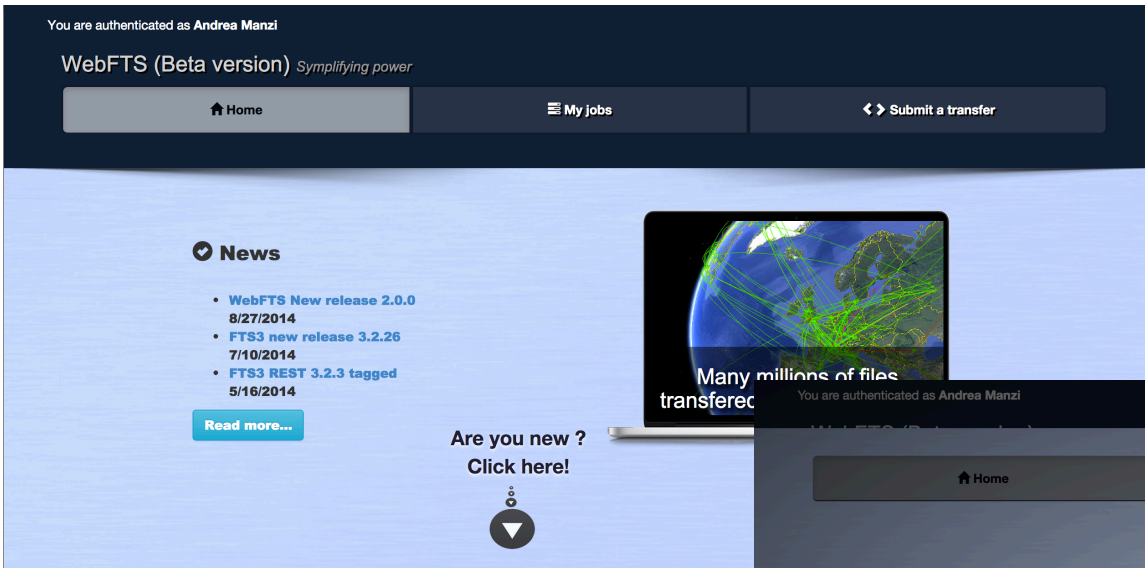 - File catalog developed at CERN and used by EGI and WLCG

Success Stories

- It has been successfully tested to transfer from/to:

  - **B2Stage** (iRODS DSI)
  - Any gsiftp/webdav/xrootd aware grid storage (**DPM, dCache, Castor, EOS, Storm**)
  - **HPC Titan** @ Oak Ridge National Lab (ongoing)
    - https://www.olcf.ornl.gov/titan/

WebFTS service

- Online service accessible:
  - https://webfts.cern.ch ← try now!
  - User certificate in your browser

- User guide, F.A.Q:
  - Online guided-tour
  - http://fts3-service.web.cern.ch/documentation/webfts

- Official support & code
  - fts-support@cern.ch
  - https://github.com/cern-it-sdc-id/webfts

Landing page and Guided-tour

Credential delegation

Transfer interface

WebFTS: File Transfer Web Interface for FTS3

Job status interface

You are authenticated as **Andrea Manzi**

No delegation detected⏷

WebFTS (Beta version) *Symplifying power*

⌂ Home	☰ My jobs	‹ › Submit a transfer

Job ID	↻ Refresh	Submit Time	Source SE	Dest. SE
a31397f6-350e-11e4-9dc8-02163e008cfa	⬆ Resubmit Job	2014-09-05T15:09:30	srm://lxfsra10a01.cern.ch	srm://srm.pic.es

File ID	Transfer Host	Source URL	Dest. URL	File Size (Bytes)	Throughput (MB/s)	Start Time	End Time
3	fts3-webfts.cern.ch	srm://lxfsra10a01.cern.ch:8446/srm/managerv2?SFN=/dpm/cern.ch/home/dteam/blatestfolder4/test.txt	srm://srm.pic.es:8443/srm/managerv2?SFN=/pnfs/pic.es/data/dteam/test.txt	11	0.00000744001	2014-09-05 15:09:32	2014-09-05 15:09:36

27546292-3362-11e4-9809-02163e008cfa	⬆ Resubmit Job	2014-09-03T12:02:18	gsiftp://lxfsra10a01.cern.ch	gsiftp://lxfsra10a01.cern.ch
0245cd88-3362-11e4-ad7b-02163e008cfa	⬆ Resubmit Job	2014-09-03T12:01:16	gsiftp://lxfsra10a01.cern.ch	dropbox://www.dropbox.com

Future improvements (I)

- Not only Transfers..

- FTS3 API are being extended to support data management operations
  - Delete
  - Create/Remove folders
 - Rename

- To be integrated in WebFTS

Future improvements (II)

- Working on the integration of further cloud storage services (*Owncloud*, *Google Drive*, etc). Priority is given to *CERNBox* (Owncloud deployment at CERN)

  - Avoid the installation of new software and uses what the user has already installed
  - Zero development of clients
  - Multiplatform is given for free

Future improvements (II)
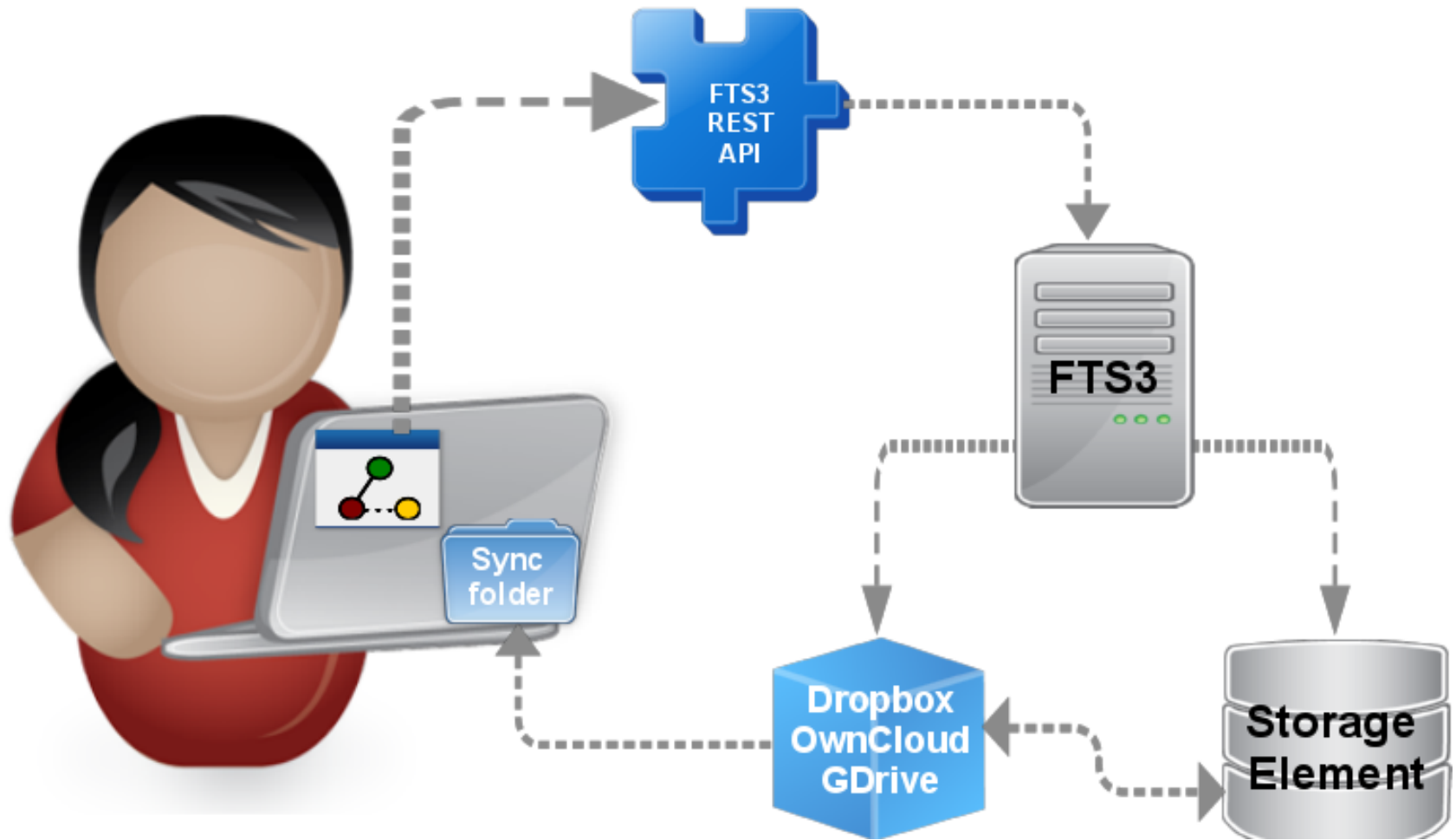
Under evaluation(I)

- New authentication method based on federated access

  - user/password access based on federated access (*EDUROAM*)

Under evaluation(II)

- FTS3 is being extended to support transfers to:

    - *S3* (Amazon)

    - Object stores like *Ceph*

- To evaluate the integration in WebFTS

Questions?

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