

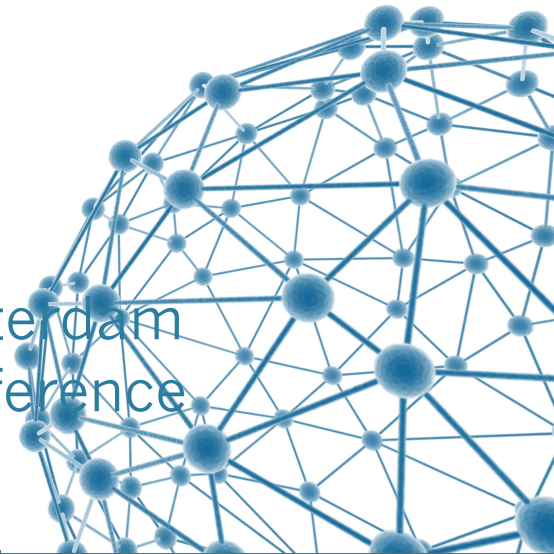


WebFTS

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

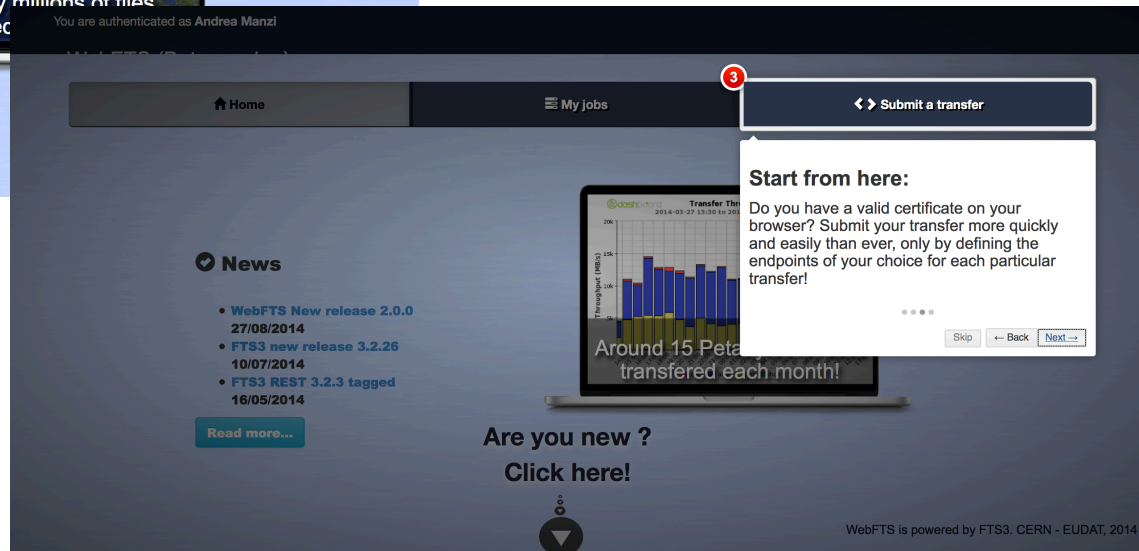
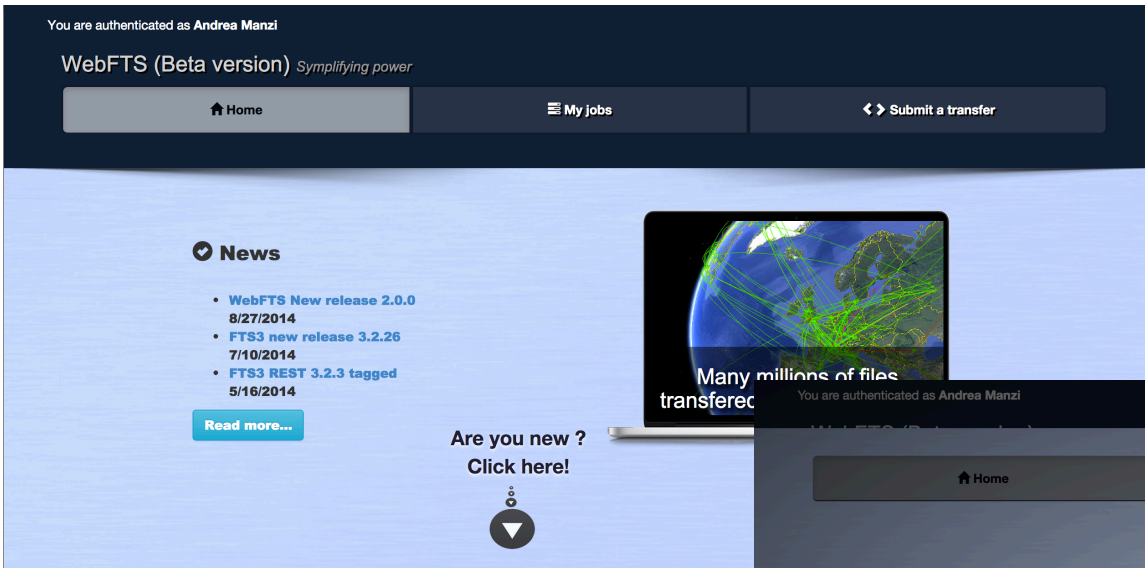
- It has been successfully tested to transfer from/to:
 - **B2Stage** (iRODS DSI)
 - Any gsiftp/webdav/xrootd aware grid storage (**DPM, dCache, Castor, EOS, Storm**)
 - **HPC Titan @ Oak Ridge National Lab** (ongoing)
 - <https://www.olcf.ornl.gov/titan/>

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

ZERO SENSITIVE INFORMATION IS TRANSMITTED

Credentials delegation ?

The private RSA key can be obtained from the p12 certificate you have installed in your browser by using:

```
openssl pkcs12 -in yourCert.p12 -nocerts -nodes | openssl rsa
```

NOTE: the private key WILL NOT BE TRANSMITTED ANYWHERE. It is only used locally (within the user's browser) to generate the proxies needed to have access to the FTS services.

Private Key

RSA private key

Virtual Organization (VO only if VOMS credentials are required to access the endpoint)
Please contact the [support](#) if you wish more Virtual Organizations to be supported

Delegate Close

No delegation detected

Submit a transfer

Endpoint path

Select All None Refresh Show filters

| Name | Mode | Date | Size |
|--------------------|------|------|------|
| 0 File(s) Selected | | | |

Load

Transfer interface

WebFTS (Beta version) *Simplifying power*

Home My jobs Submit a transfer

Loading proxy...

Grid SE
Grid Storage Element

Grid SE
Grid Storage Element

Dropbox
Dropbox

0 File(s) Selected

>

<

Overwrite Files

Compare Checksums

LFC Registration

lfc://

Grid SE
Grid Storage Element

gsiftp://lxfra10a01.cern.ch/dpm/cern.ch/home/ Load

Select All None Refresh Show filters

| Name | Mode | Date | Size |
|-------|------------|--------------|------|
| .. | | | |
| alice | drwxrwxr-x | 01 Aug 13 | - |
| atlas | drwxrwxr-x | 06 Jun 07:58 | - |
| cms | drwxrwxr-x | 04 Sep 13:31 | - |
| dteam | drwxrwxr-x | 09 Sep 15:52 | - |
| lhcb | drwxrwxr-x | 01 Jul 13 | - |

0 File(s) Selected

Job status interface

You are authenticated as **Andrea Manzi**

No delegation detected

WebFTS (Beta version) *Simplifying 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://lxfkra10a01.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://lxfkra10a01.cern.ch:8446/srm/manager2?SFN=/dpm/cern.ch/home/dteam/blatestfolder4/test.txt | srm://srm.pic.es:8443/srm/manager2?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://lxfkra10a01.cern.ch | gsiftp://lxfkra10a01.cern.ch | | | |
| 0245cd88-3362-11e4-ad7b-02163e008cfa | Resubmit Job | 2014-09-03T12:01:16 | gsiftp://lxfkra10a01.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

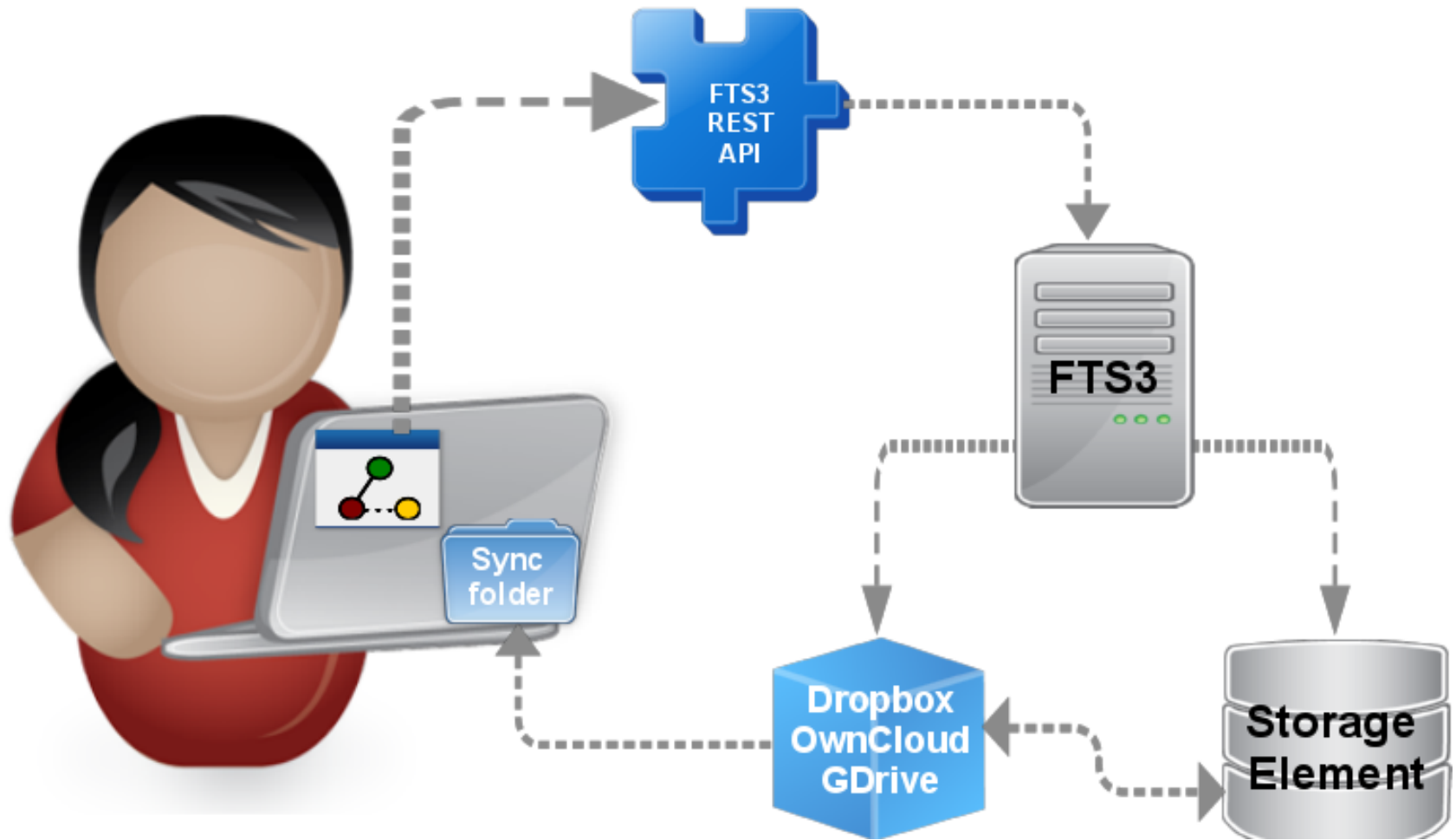


Future improvements (II)

- 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?

fts-support@cern.ch

