



EGI Conference on Challenges and Solutions for Big  
Data Processing on Cloud

EGI UMD Storage Software Repository  
(Mostly former EMI Software)

## Disclaimer

- The software components and the services presented here, are those EGI is providing or brokering.
- We are not claiming that those solutions are the only or the best ones available.
- **REMEMBER:** This presentation is on storage components, not on storage services. The EGI service in conjunction with those components is to provide a distribution, and not to run them.
- **AND MAYBE:** If you run those components yourself, you are not using the cloud. If EGI is running the same components as a service, and you are using them, then you are using the cloud.

## The basic Idea behind the UMD

### Providing

- **interoperable components** (toolbox) for storage management and fast data access
- offering **(industry) standard interfaces** to data clients and external components (e.g. accounting modules) which are
- **tested, released** and
- **deployed** in a consistent and transparent way.

## What do we need



- Storage endpoints
- Meta data and location catalogue
- File transfer services
- Storage Federation mechanisms

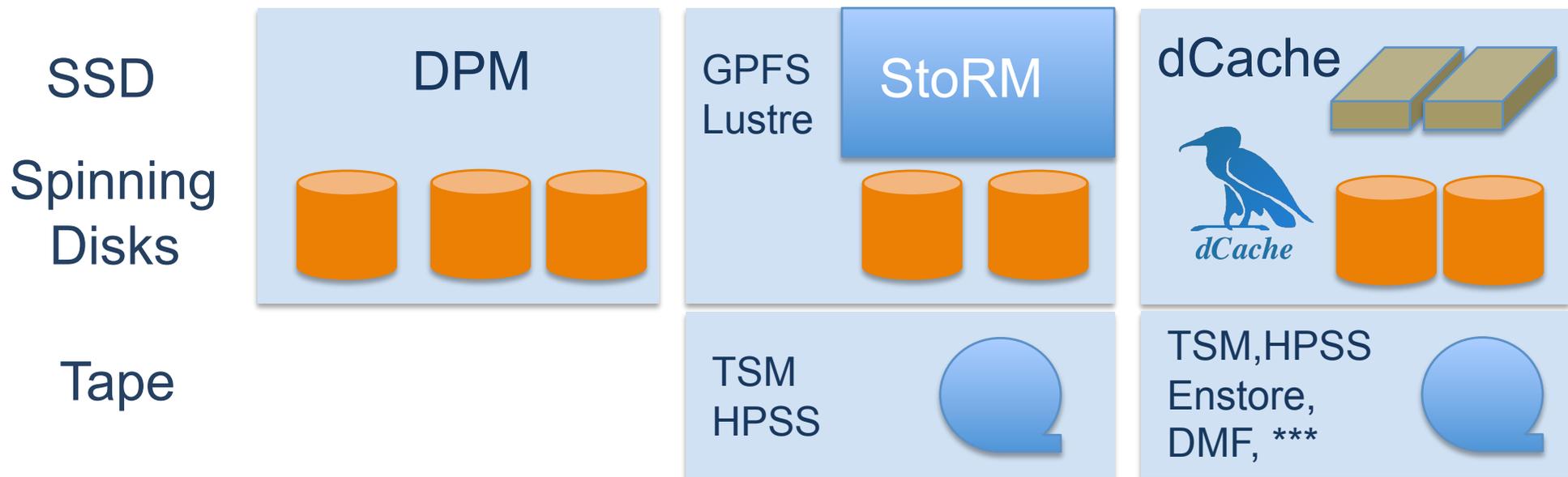
And again:

These are software components, not services. Other than the GLOBUS file transfer service, which is only a service and is not available as software component.

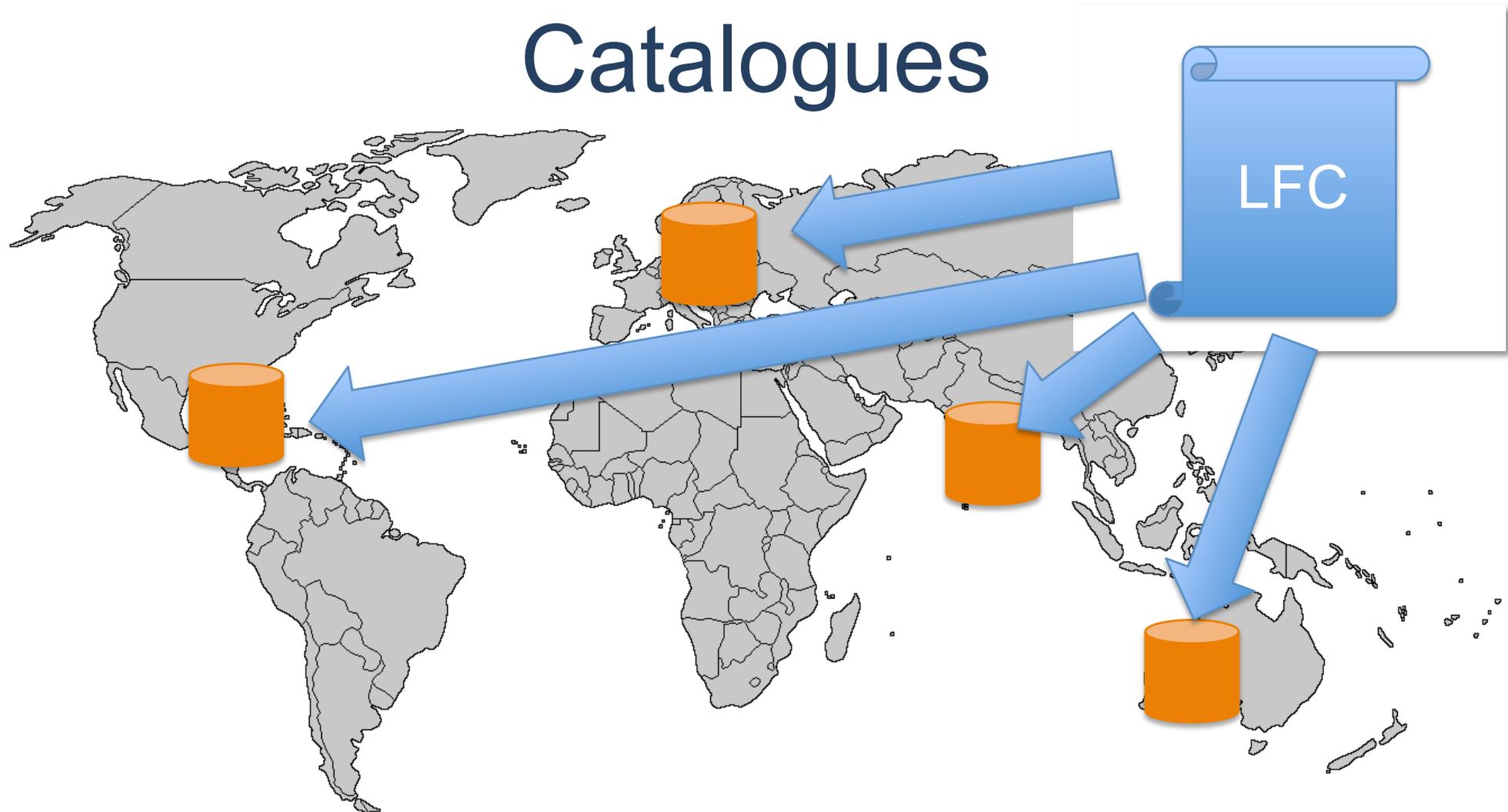
## The storage endpoints

Storage Management		Wide Area Access		High Performance Random Access	Accounting
SRM	WebDAV	GridFTP	NFS 4.1 / pNFS		StAR

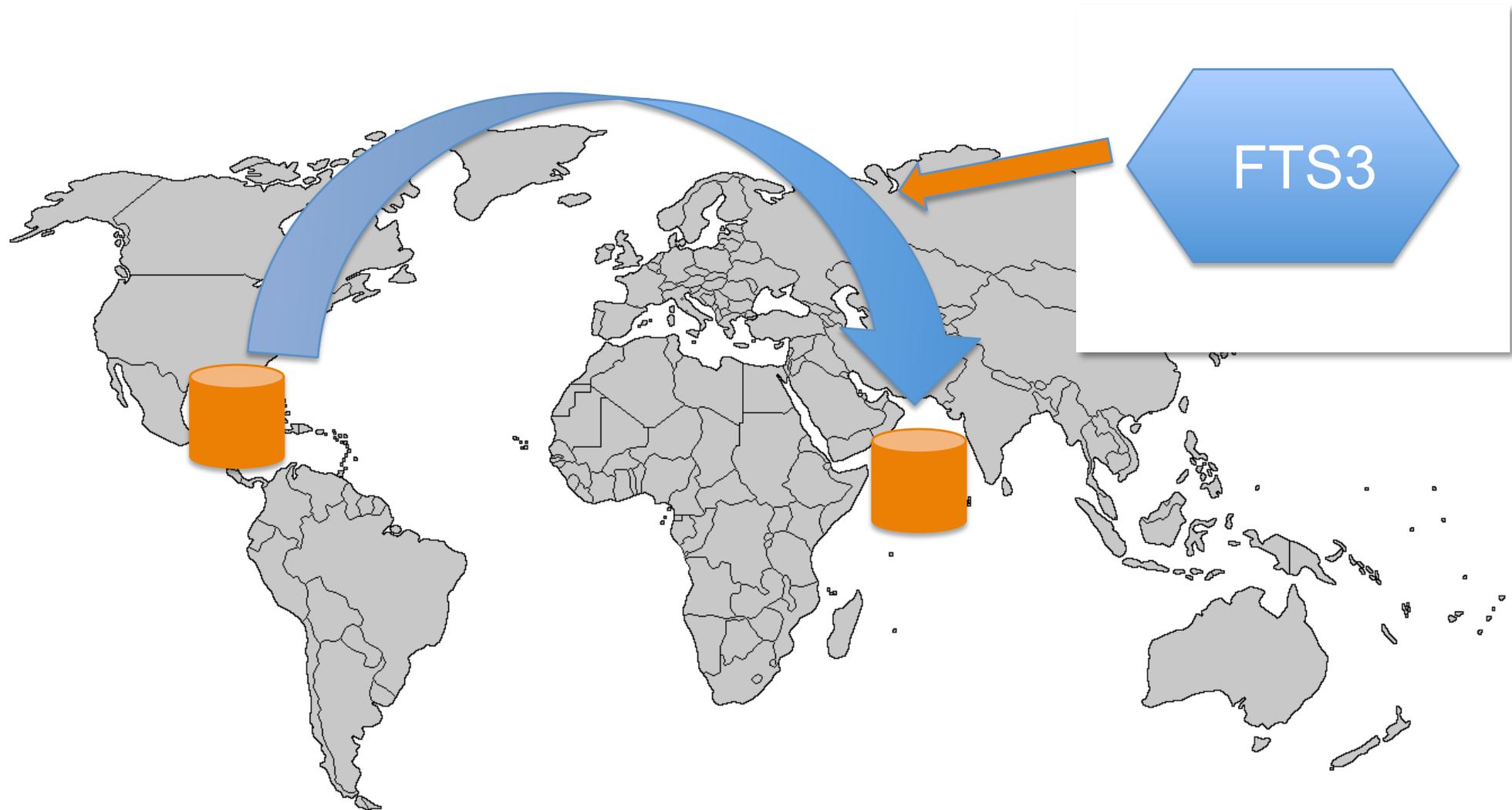
Standard Abstraction Layer



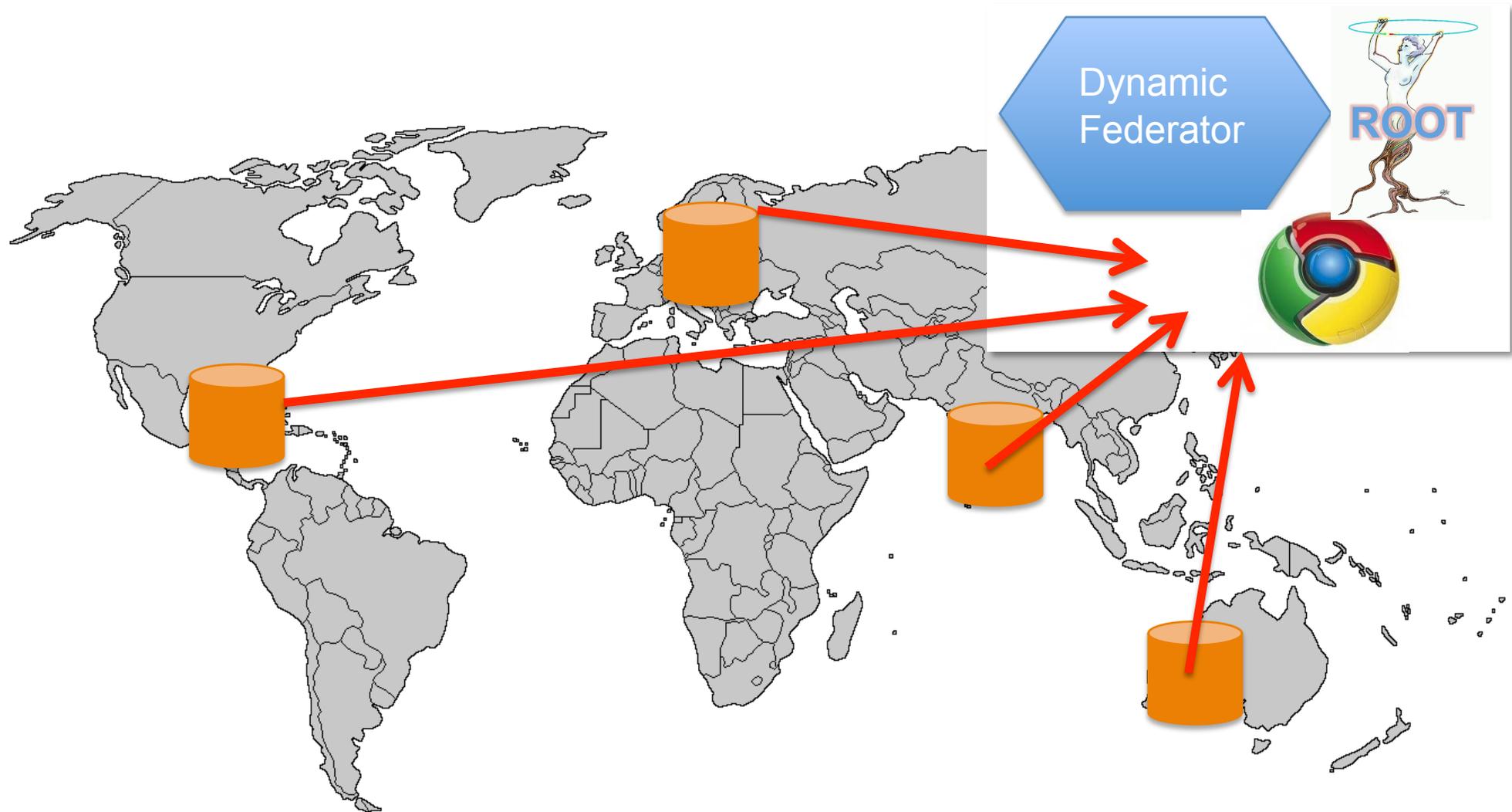
## Location and Metadata Catalogues



## File Transfer Service FTS3



## Dynamic Federation



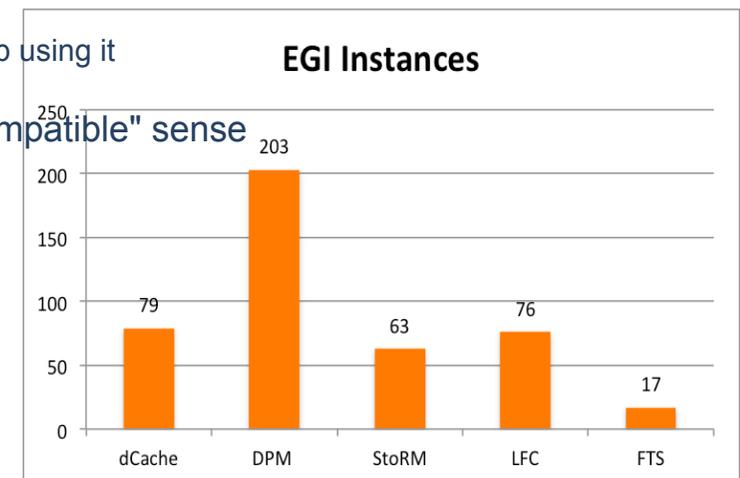
## The EGI UMD Release Management

## UMD By Cristina Aiftimiei

Data Management & Storage Services available in UMD and their support calendar

[https://wiki.egi.eu/wiki/URT:UMD\\_products\\_ID\\_cards](https://wiki.egi.eu/wiki/URT:UMD_products_ID_cards)

- **dCache**
  - Server
    - 2.6 branch – until **end of April 2015**
    - New golden release, 2.10, released in July, will be supported for **two years**
    - **For details see dCache.org**
  - Srmclient
    - will be supported **as long as needed**
    - no new version planned
- **DPM, LFC, FTS3 and DMC** (gfal2-\*, dmlite, davix, srm-ifce, gfalFS)
  - Support is **indefinite**
  - LFC:
    - Full support until end of 2014, when WLCG experiments will stop using it
    - will still be supported for other VOs at **best-effort**.
  - No plans for a major release - in the "major = backward incompatible" sense
- **StoRM**
  - supported until **April 2015**
  - No plans for a major release



## The Software Provisioning Process

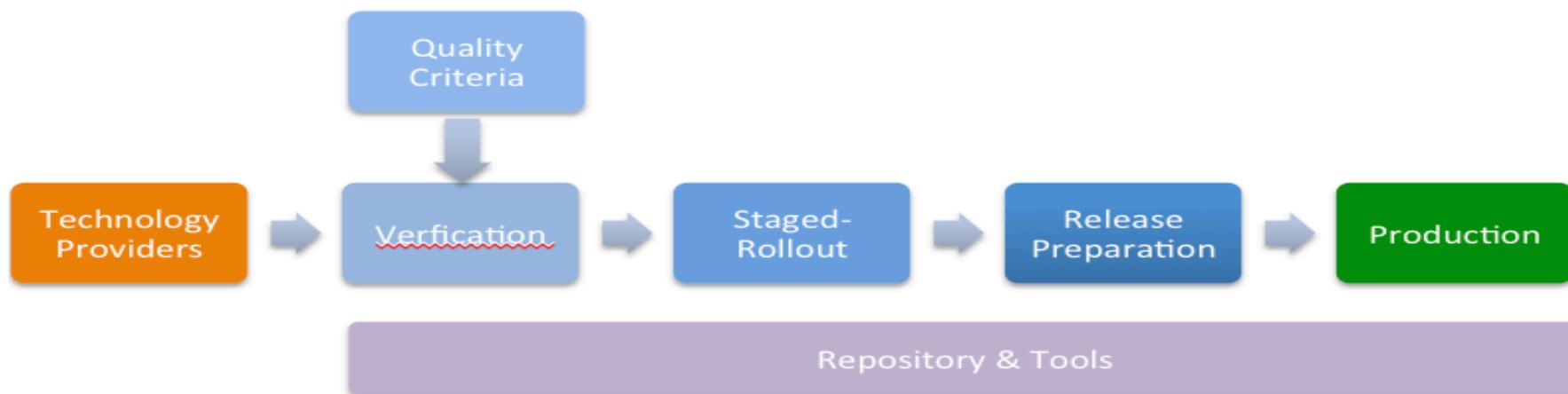
By Cristina Aiftimiei

- **UMD**

*“UMD stands for **Unified Middleware Distribution**, the proposed approach of handling middleware maintenance, integration, testing, and deployment within the EGI and NGI infrastructure. It defines components, processes, involved parties etc. in order to guarantee the infrastructure to get reliable middleware in terms of both functionality and quality.”*

- **Software Provisioning Process:**

Handles the software delivery from software development teams, aka Technology Providers (TP), the Software Assessment (through Quality Assurance and Staged Rollout) and Reporting.



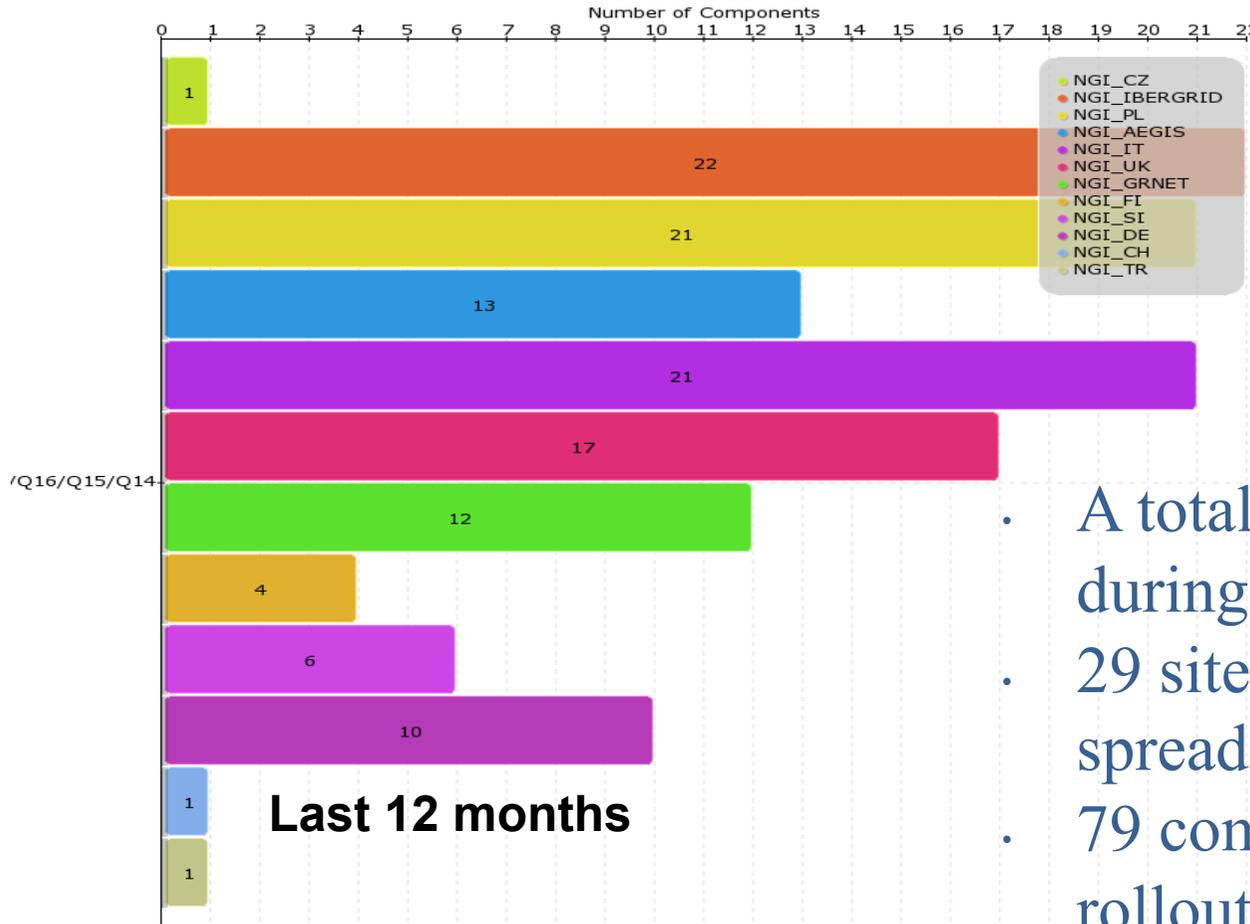
## Software Provisioning – Staged Rollout

By Cristina Aiftimiei

- EGI Staged Rollout
  - procedure through which newly verified software releases are first deployed and tested by **Early Adopter sites** before General Availability to all sites in the production infrastructure.
- At the moment we have 67 different products from different PT's:
  - <https://www.egi.eu/earlyAdopters/teams>
  - Currently there are 76 EA teams registered:
    - <https://www.egi.eu/earlyAdopters/table>
- Many teams are acting as EA for more than one product.

## Early Adopter in numbers

By Cristina Aiftimiei



- A total of 129 reports achieved during last year
- 29 sites contributed with reports spread over 12 NGI's
- 79 components passed staged-rollout with a total of 0 rejections

Now you can relax again,  
I'm done.