



THE 5TH DCACHE WORKSHOP

Welcome

to the 5th European dCache

Workshop

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Jointly organized by

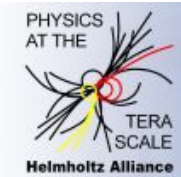


German
dCache
Support
team

&



And generously sponsored by





- PEOPLE AND FUNDING
- WHAT'S NEW ?
- PROJECTS : EMI
- DOCUMENTATION
- DEVELOPMENT
 - NFS 4.1 / PNFS
 - GLOBAL NAMESPACE
 - CDMI
- EVALUATION : DESY GRID-LAB
- DEPLOYMENT AND G. RELEASE POLICY
- WORKSHOP OVERVIEW

CONTENT





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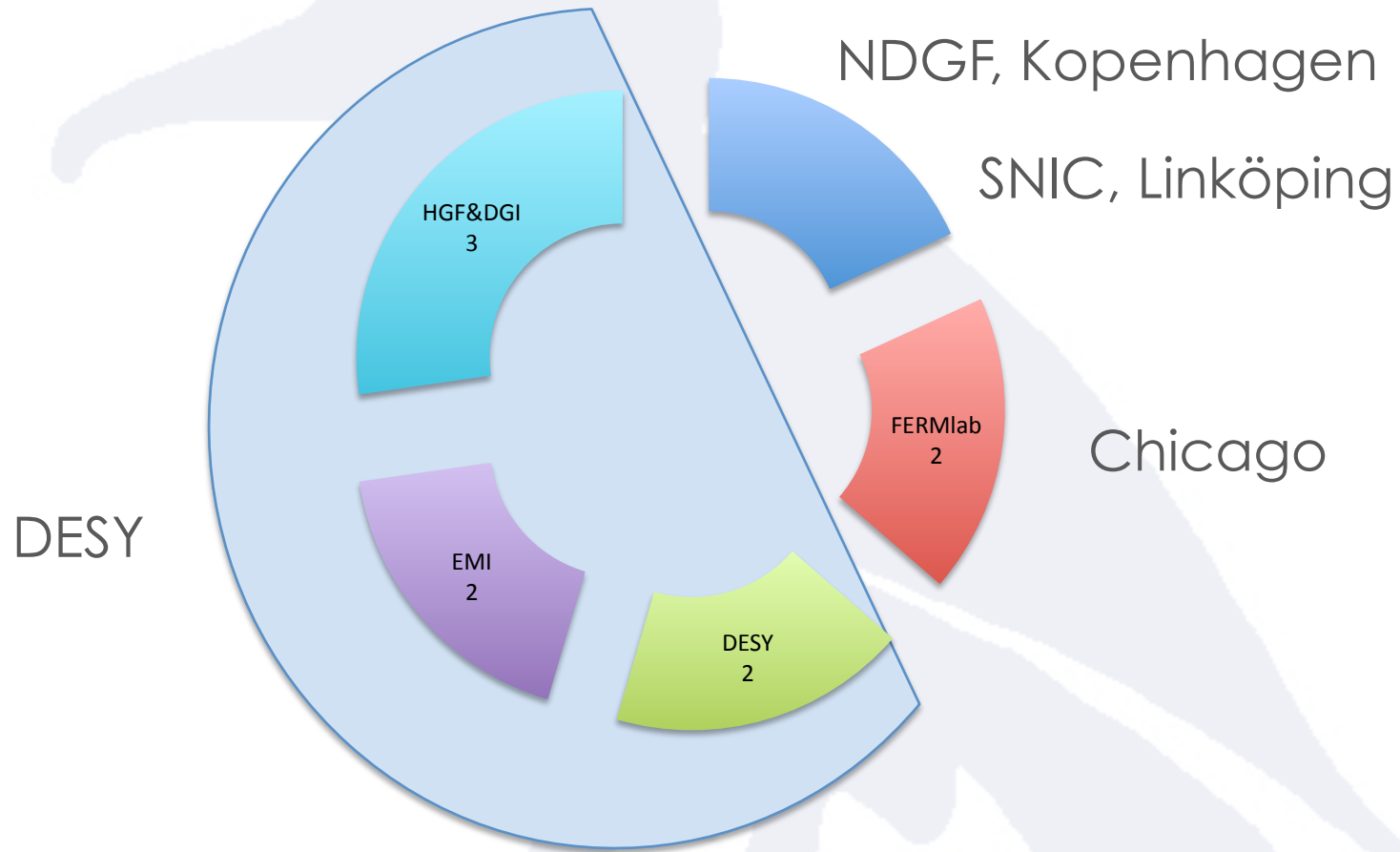
PEOPLE





PEOPLE AND FUNDING

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PEOPLE : GERMAN SUPPORT GROUP

German Support Group (GSG) = 5

Leadership recently moved from Christopher to Doris

- Composed of
 - HGF Alliance sites
 - D-Grid Integration Project (DGI I/II)
 - Voluntary Sites
- Activities
 - Bi-weekly phone conferences
 - Review of dCache.org documentation
 - Organization of annual dCache workshop and “Storage Sessions” at the *GridKa School of Computing*
 - Incident management (for German dCache sites)
 - Early adaptors of ‘new dCache releases’
 - Evaluation and early integration of new technologies (e.g. NFS4.1/pNFS or WebDAV)

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WHATS NEW ?

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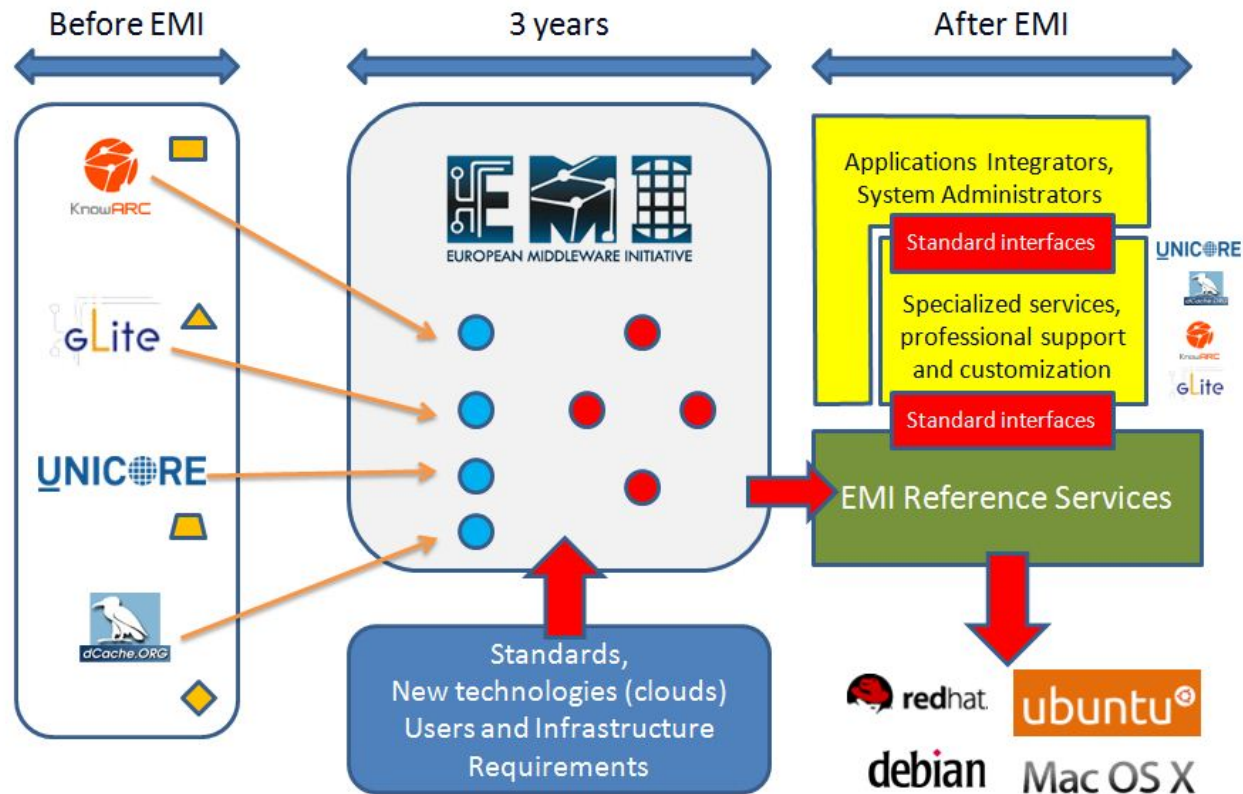




WHATS NEW ? EMI

dCache is partner in the European Middleware Initiative since May 2010

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WHATS NEW ? EMI

What does the EMI membership mean for dCache.org ?

- Two fully funded colleagues (JRA & SA)
- EMI enforces painful but very useful professional mechanisms :
 - Quality control
 - Deployment process
 - Documentation
 - User support
- A lot more work for the team. (Funding break-even not yet reached).



WHATS NEW ?

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dCache “The Book”






DOCUMENTATION IMPROVEMENTS (BOOK)

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Comments (2)


Sort by: [Date](#) [Rating](#) [Last Activity](#)

 [Xavier](#) · 5 weeks ago

No need for execution of install.sh anymore? :-)

[Reply](#)

[1 reply](#) · active less than 1 minute ago

 [antje](#) 12p · 4 weeks ago

No, not needed anymore.

[Reply](#)

Post a new comment

Enter text right here!

Comment as a Guest, or login: [intensedebate](#) [WordPress.com](#) [OpenID](#)

Name

Displayed next to your comments.

Email

Not displayed publicly.

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If you have a website, link to it here.

Subscribe to

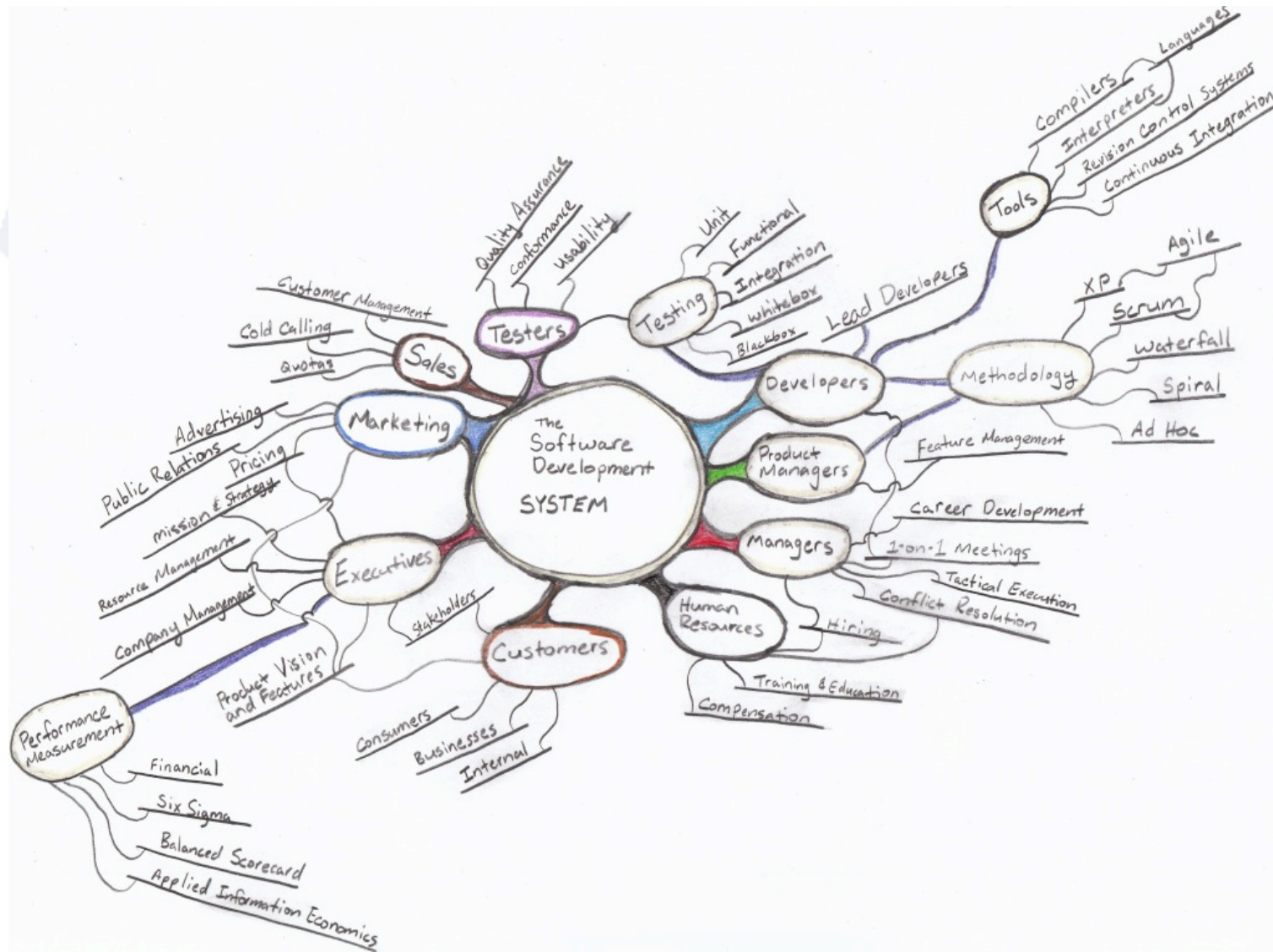
[Submit Comment](#)

- “The Book” is updated and improved step by step.
- Starting internally, followed by comments from GSG.
- Comments are fed back into “The Book”.
- Last step : everybody can comment.



STRATEGIC SOFTWARE DEVELOPMENT

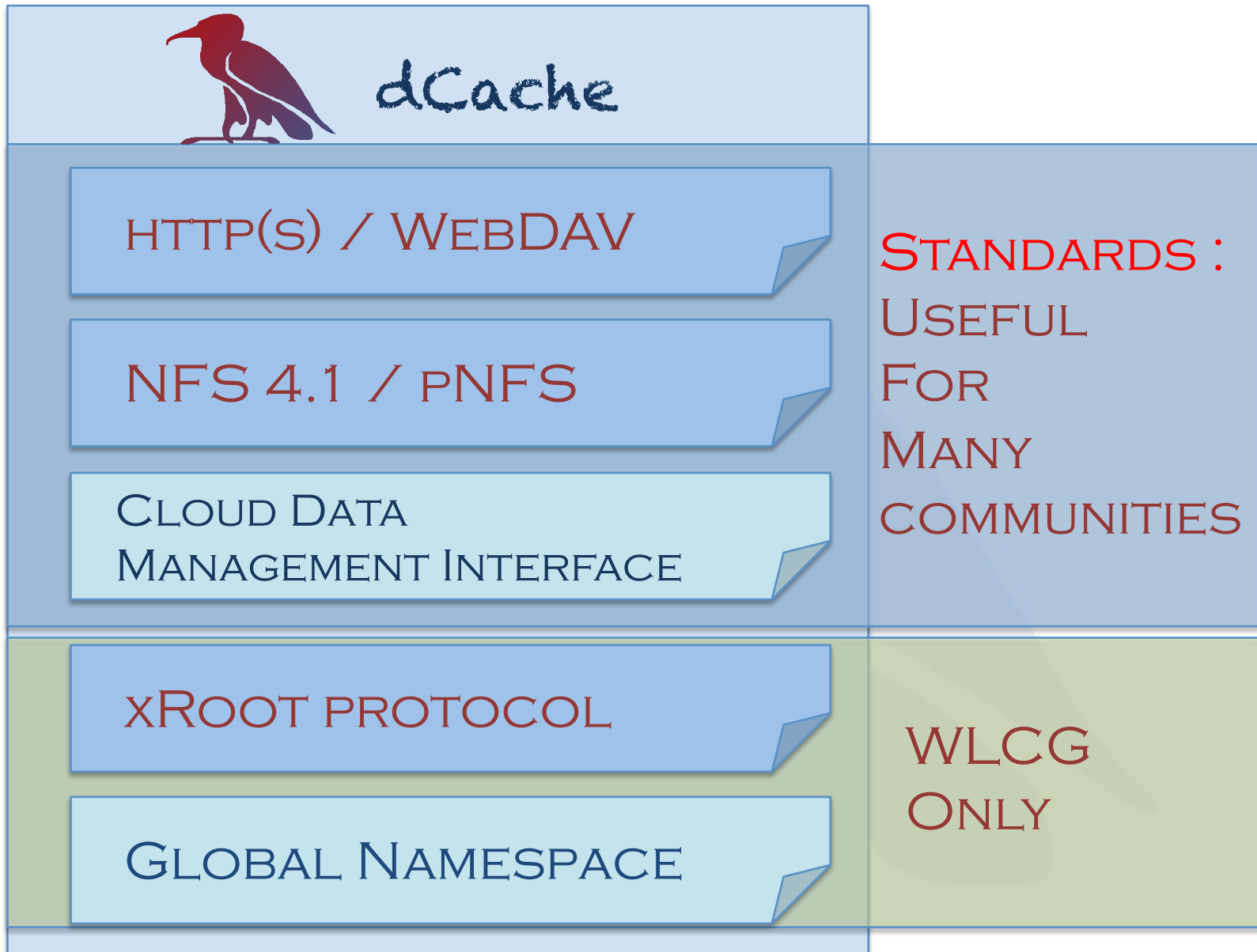
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NEW PROTOCOL SUPPORT

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STRATEGIC SOFTWARE DEVELOPMENT

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HTTP(S) / WEBDAV

NFS 4.1 / PNFS

XROOT PROTOCOL

Essentially Done
See Protocol
Presentations

CLOUD DATA
MANAGEMENT INTERFACE

Similar to Amazon (S3)

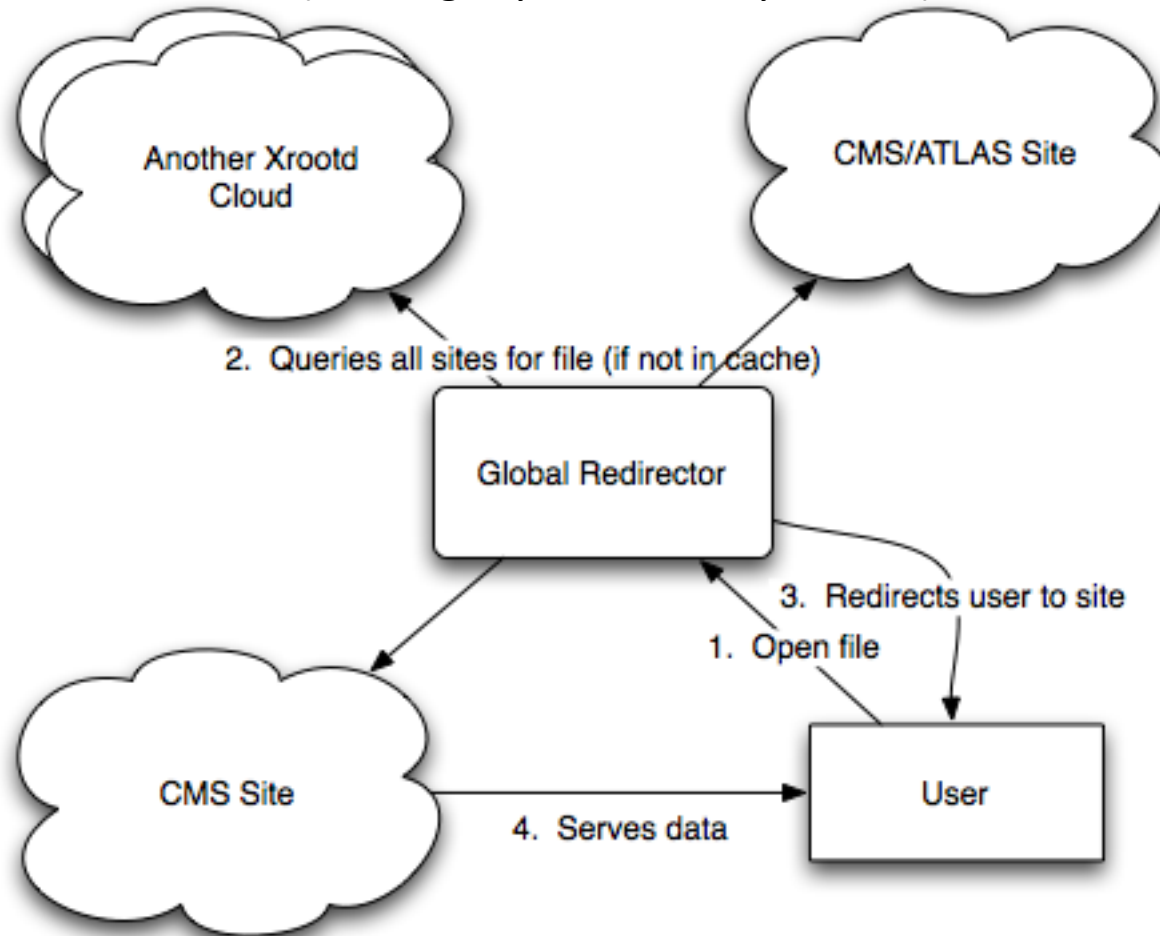
Very interesting
but :
No funding, no
customers



GLOBAL NAMESPACE

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Stolen from Brian Bockelman (and slightly modified by Patrick)

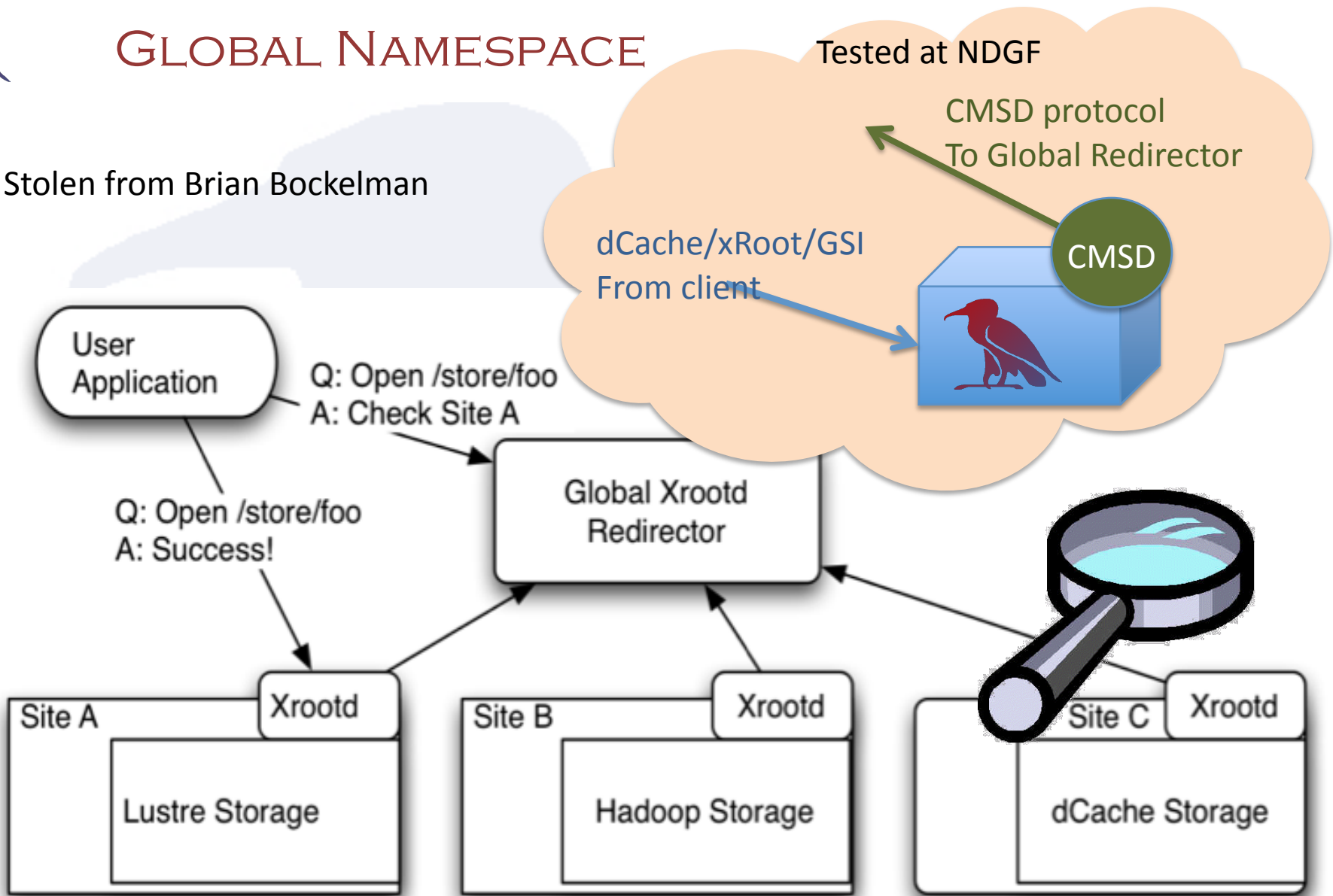




GLOBAL NAMESPACE

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Stolen from Brian Bockelman





MORE DEVELOPMENTS

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GPLAZMA II



Not ready net

- In preparation of NFS4.1 and WebDAV
- User name , password
- Integration of ARGUS DN-Blacklisting
- Automatic UID generation

NEW CONFIGURATION

NEW LOGGING SYSTEM

PIN MANAGER

SRM SCALING

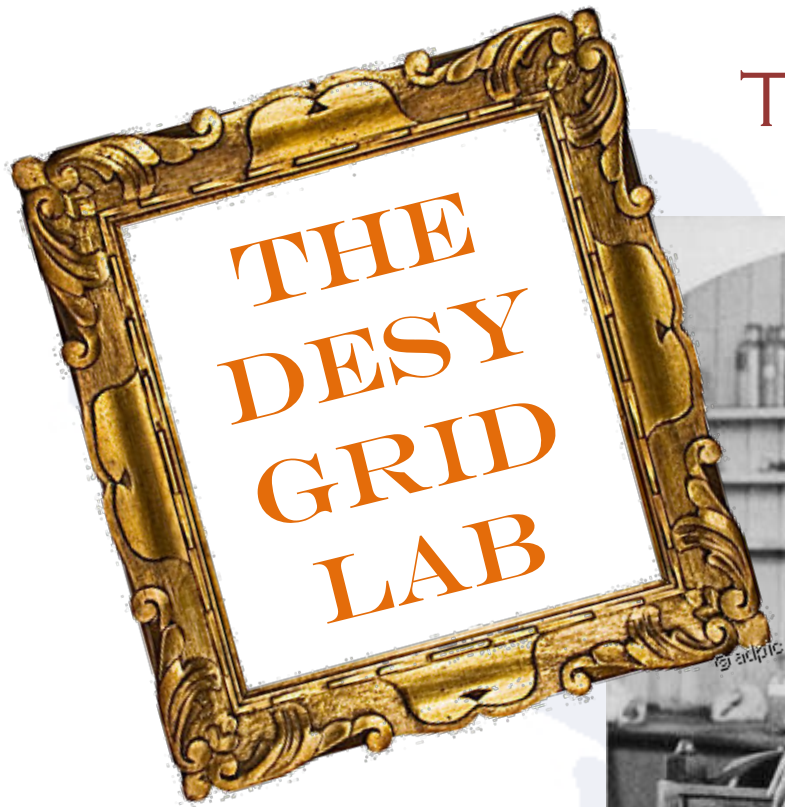
See Presentations/Demos Christian, Karsten, Gerd, Mattias



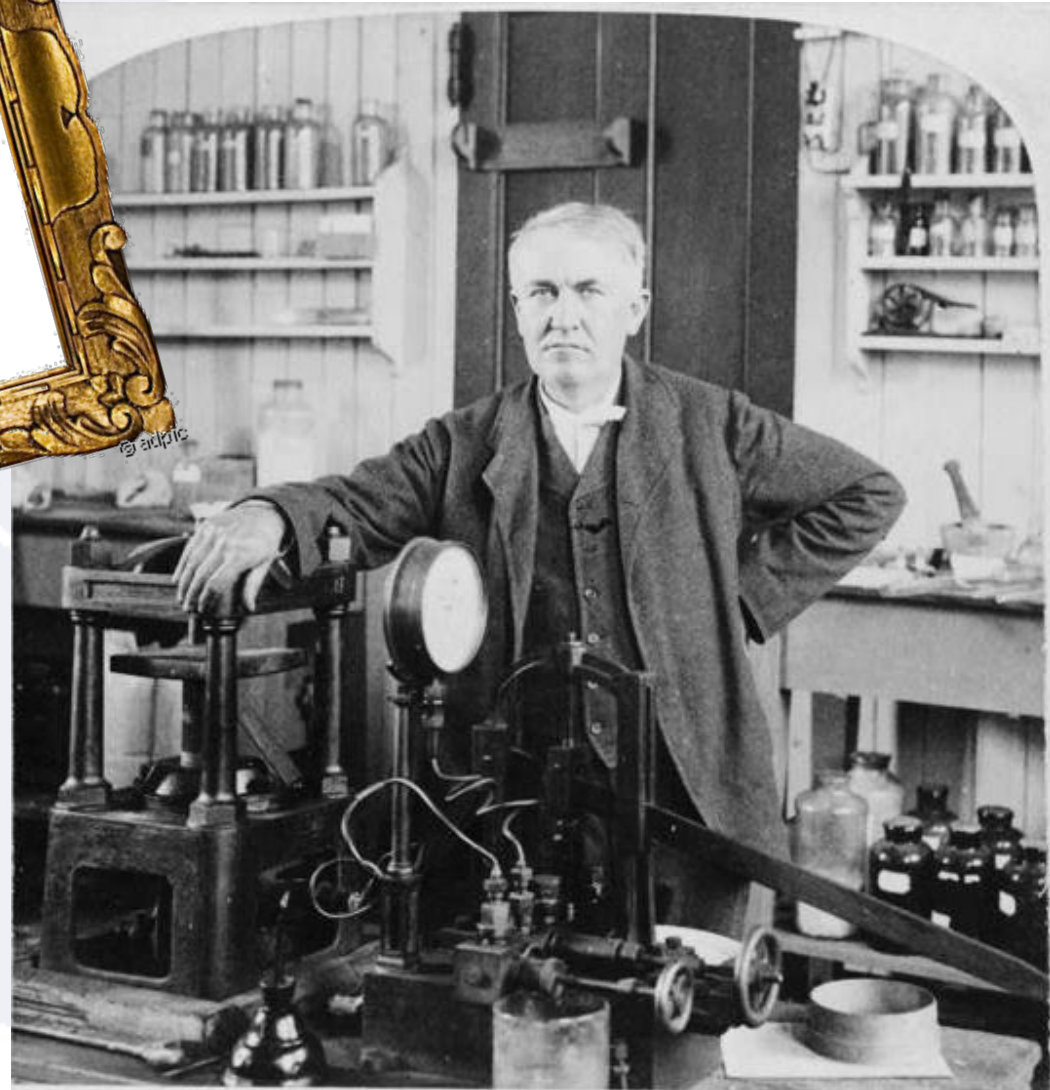
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THE DESY GRID LAB



OPERATED BY
YVES KEMP
DMITRI OZEROV

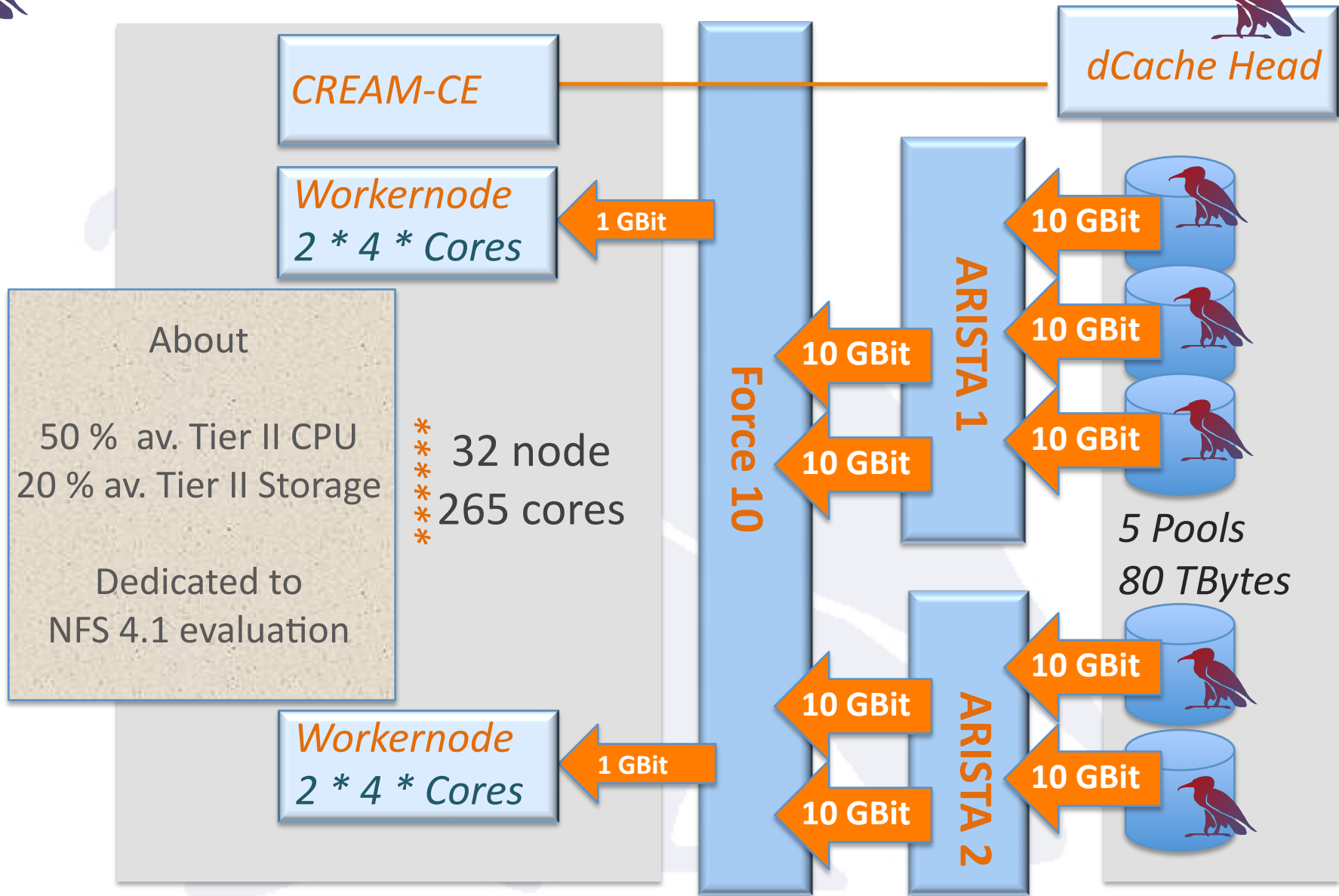




DESY GRID-LAB



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THE DESY GRID-LAB

What are we doing with Grid-Lab ?

- Supplementary to HEPIX storage working group.
- Comparing different protocols and systems.
- Evaluating different clients
 - ✓ ROOT
 - ✓ Hammer Cloud
 - ✓ CMS Analysis
- Asking why (is this and that protocolnon-black-box) ?
- Continuous effort.
- Results are published

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THE DESY GRID-LAB

What are we doing with Grid-Lab ?

- Results published at CHEP'10
 - Xrootd paper (Gerd, Thomas, Dmitry)
 - NFS 4.1/pNFS (Yves, Dmitry, Tigran)
- XFEL/CFEL Photon Science NFS 4.1 evaluation with proprietary applications with very good results.
- Federica (LMU) ROOT tests



CONCLUSION

dCache.org

- Continues to invest in standard protocols
- Keeps interoperability with WLCG proprietary solutions
- Continuously evaluates protocols and systems to improve performance (Grid-Lab) 
- Applies professional quality assurance mechanisms (various matrixes : code, support) by partnering with large projects (EMI)



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DEPLOYMENT AND RELEASE POLICY

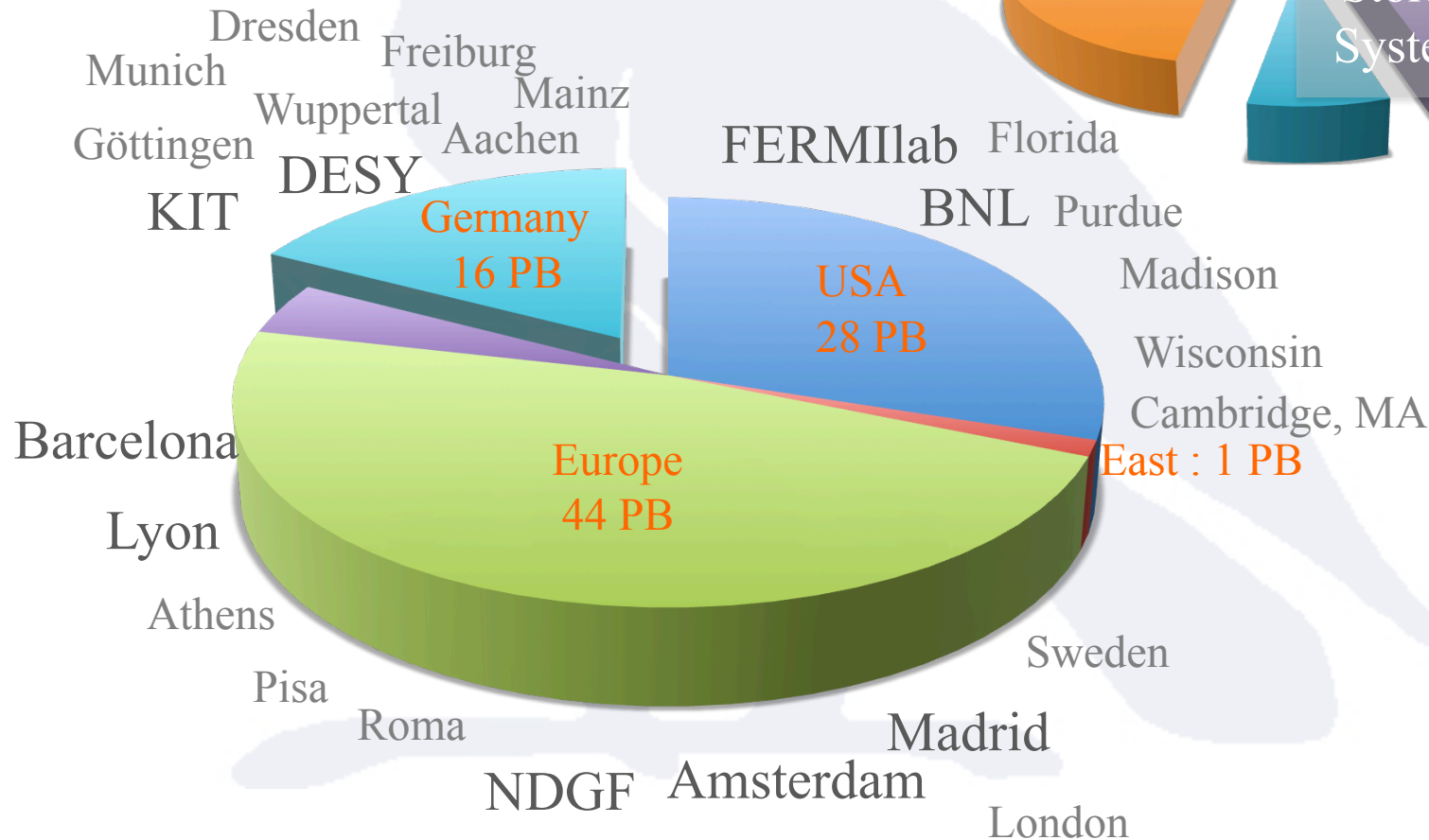
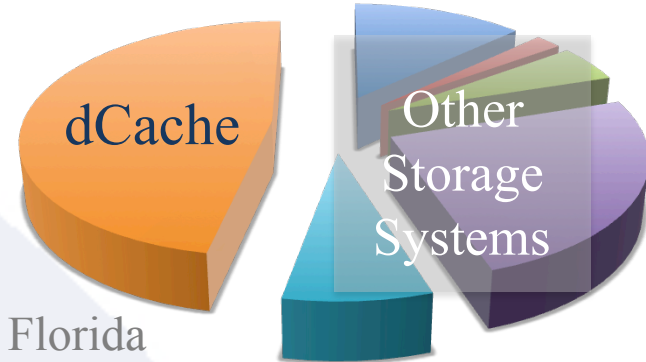


STATUS : DCACHE DEPLOYMENT

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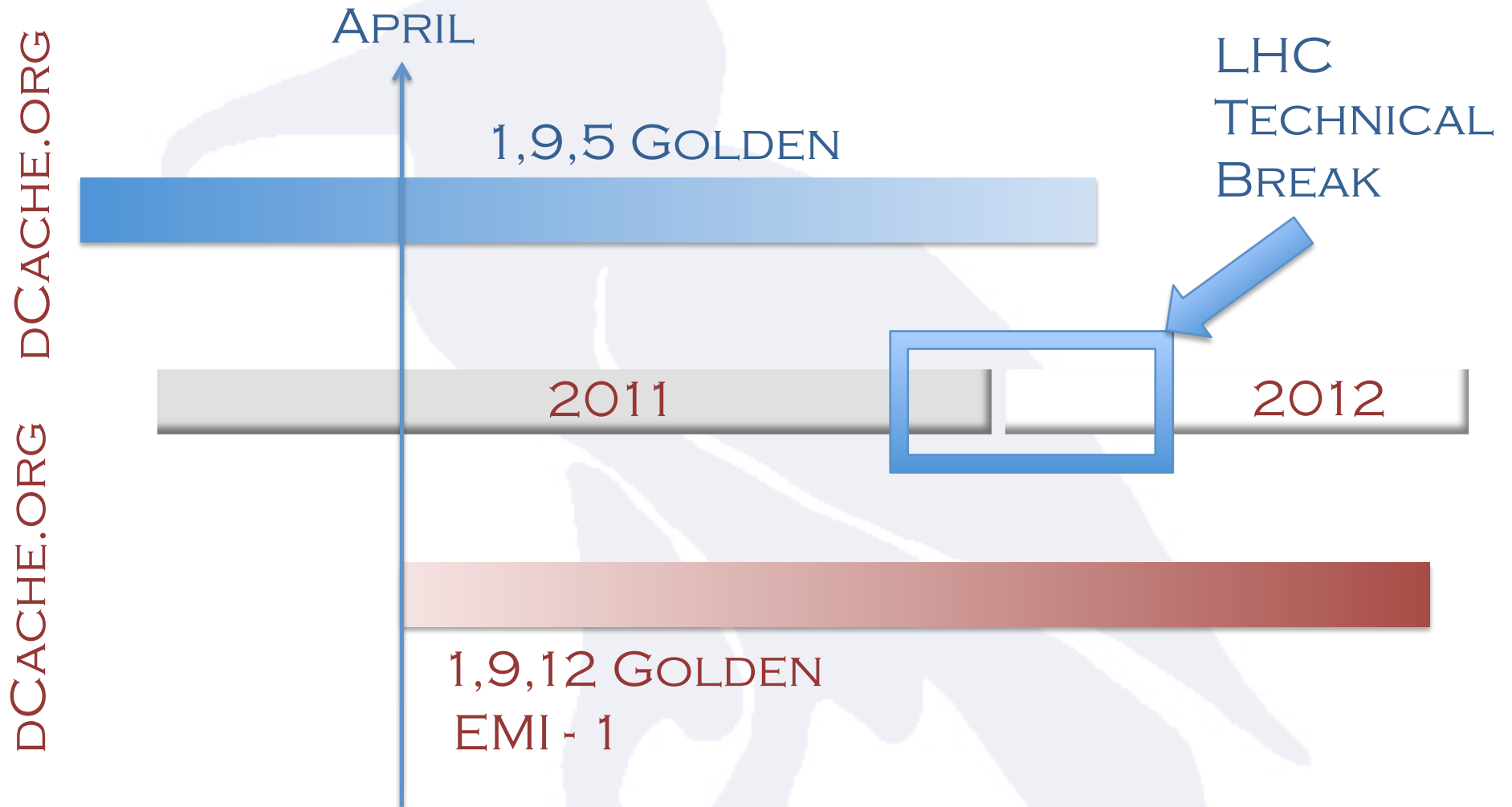
- 94 PB in total
- 7 Tier I's
- 40 Tier II's

WLCG STORAGE PER SE TYPE



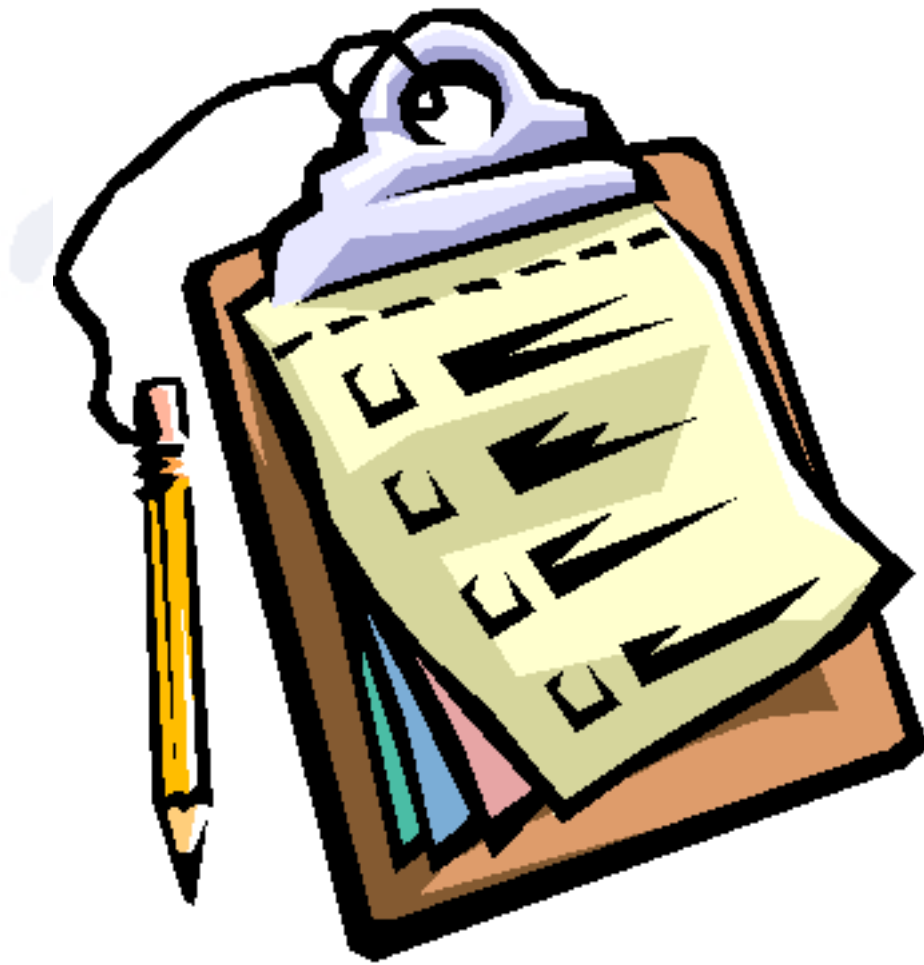


DCACHE GOLDEN RELEASES





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WORKSHOP AGENDA



WORKSHOP AGENDA

1.9.12 MIGRATION

Theory
Hands-On

PROTOCOLS

xRoot

NFS 4.1/pNFS

WebDAV (Theory&Hands-On)

MORE

gPlazma

Pool Balancing Module

New dCache Logging system

Bits and Pieces

PIC Experience and Migration report



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ENJOY

