

IBERGRID

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13TH IBERIAN GRID CONFERENCE



DESY site report

Yves Kemp, Tim Wetzel (for the DESY IT groups)
IBERGRID 2024
Porto, 29th October 2024



LABORATÓRIO DE INSTRUMENTAÇÃO
E FÍSICA EXPERIMENTAL DE PARTÍCULAS



Infraestructura
Nacional de
Computación
Distribuida



CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



News from the lab: Directorate

Chair of directorate: Helmut Dosch

- will retire in 2025 ... designated successor: Beate Heinemann
- will need sucession for Beate Heinemann as current High Energy Physics director

Photon Science: Edgar Weckert stepped back for retirement

- Franz X. Kärtner temporary head

Administration: Christian Harringa stepped back beginning of 2024

- Arik Willner (Chief Innovation Officer) temporary head

News from the lab: Management of IT division



- Volker Gülzow retired mid 2023
- Successor: Philipp Neumann started officially in May 2024
- Philipp currently was professor and chair for High Performance Computing at the Helmut-Schmidt-Universität in Hamburg
- Philipp is now head of IT division and professor at the Universität Hamburg for High Performance Computing and Data Science



MFA introduction & SSO

- Multi-Factor introduced for most/all external facing services
 - including large compute clusters, also accessed by non-DESY people
- Overall: Well received, only few problems reported
- Measure of success: e.g. Email/Phishing drastically decreased
- Currently being discussed:
 - Single-Log-Out : Yes or No?
 - Which combinations secure beyond passwd+2FA? Cert+2FA? Krb5+2FA?
 - Additional admin accounts – and workflows?
For base Windows and Linux administration?
For administration of services?



Goodbye to ATLASSIAN Stash Jira Bamboo

Last few miles of the exit path


- DESY is phasing out ATLASSIAN products
 - Moving towards more open-source, and less vendor lock-in whenever possible
- Jira: Mostly migrate to self-hosted Gitlab (community edition)
 - One group with special needs → ATLASSIAN Cloud, another group → Redmine
- Stash / Bitbucket → self-hosted Gitlab
 - Migration to Gitlab using bulk migration script, user migration using git clone/push, or via UI
- Plan: Shutdown Jira & Bitbucket at the end of May. Bamboo already switched off since Nov. 2023
- A DESY group specializing in support for project management is building up an MS Project online environment for multi-project management



Goodbye to ATLASSIAN

Last few miles of the exit path

Confluence

- Confluence Spaces are being migrated into new service based on  <https://xwiki.org>
- New service is supported by service & support contract. Migration is supported by consultancy and development contracts (with Xwiki.com, a European company with HQ in Paris)
- Xwiki offers a migration tool that allows migration of single spaces or whole installations
 - Based on the size of the DESY Confluence installation: Migrating clusters of single spaces spread over time, no point-in-time full migration
 - Two-step-migration: preview with user feedback/change requests production environment
 - Users continue using Confluence until final migration ... with RO mode and XML/static HTML archive
- Whole process taking longer than planned: lack of human resources, (understandably) hesitant user group

Windows

- Security:
 - Implementation of tool for IoC-Monitoring and AD-Backup&Recovery started
 - removing access to Windows for unused / seldomly used accounts
- Performance:
 - Long lasting unspecific performance problems throughout clients
 - pinned down to non-optimal performance setting in BIOS in AD controller
- Migration Linux/Samba Windows Print Server for Windows clients
 - ~400 printers, each one with shared custom presets, using ~30 drivers
- Migration Windows 10 Windows 11
 - Desktops & Laptops: ~30% Windows 11, 70% Windows 10 ... will enforce migration
 - Using the annual feature releases

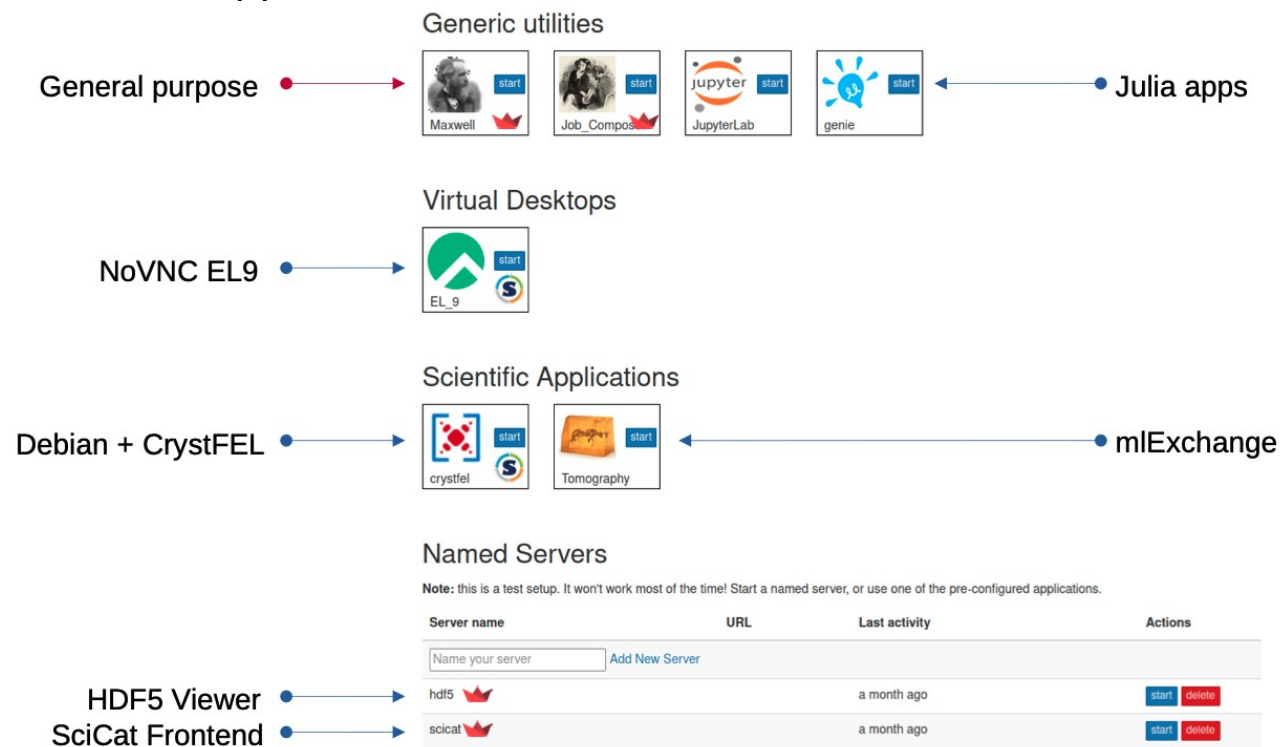


Short news from NAF, Grid, Maxwell HPC

- Lot of work ahead: Migration to RHEL 9
- With end of EL7: No more VOMS
 - used at DESY for own communities
 - future under investigation
- Grid: APEL Accounting
 - EL9 & HTC23: APEL accounting currently not available
 - Going to deploy AUDITOR accounting alternative (developed at Freiburg Uni)
- Sectigo:
 - Sébastien Günther // changing street names & DN // ...

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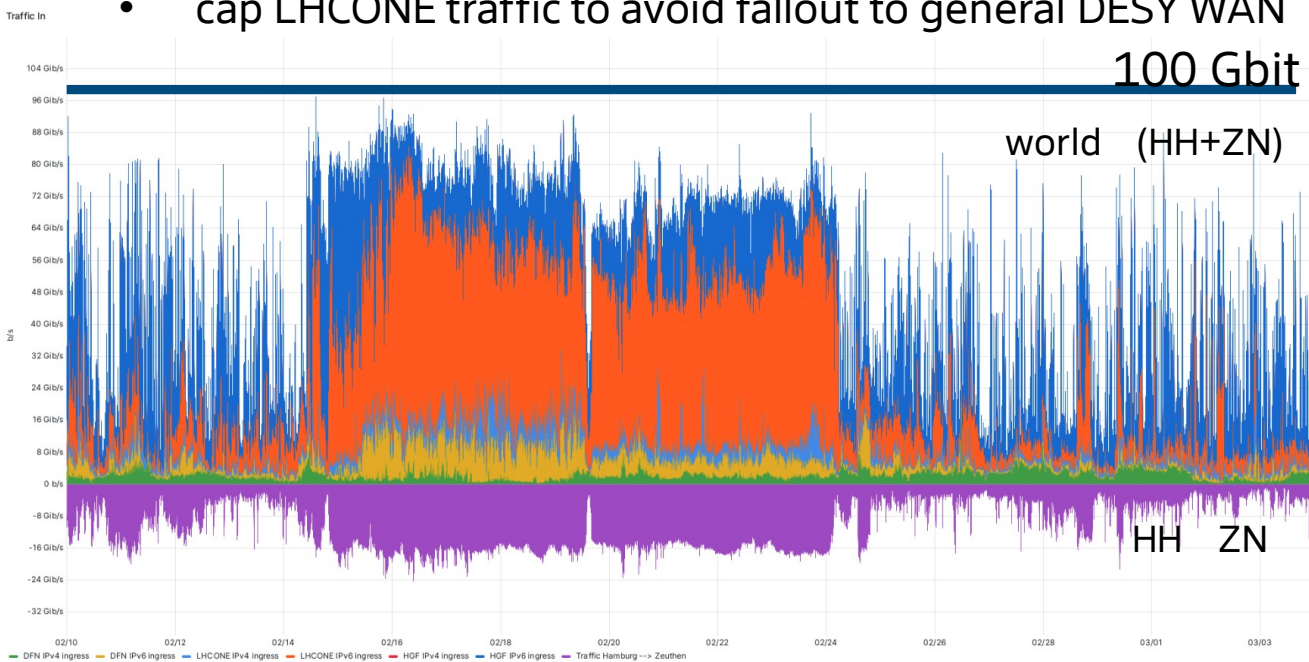
- Photon science makes heavy use of Jupyter
 - Using integration into Maxwell-SLURM for some years
 - Using Jupyter beyond just notebooks: combine with application frameworks



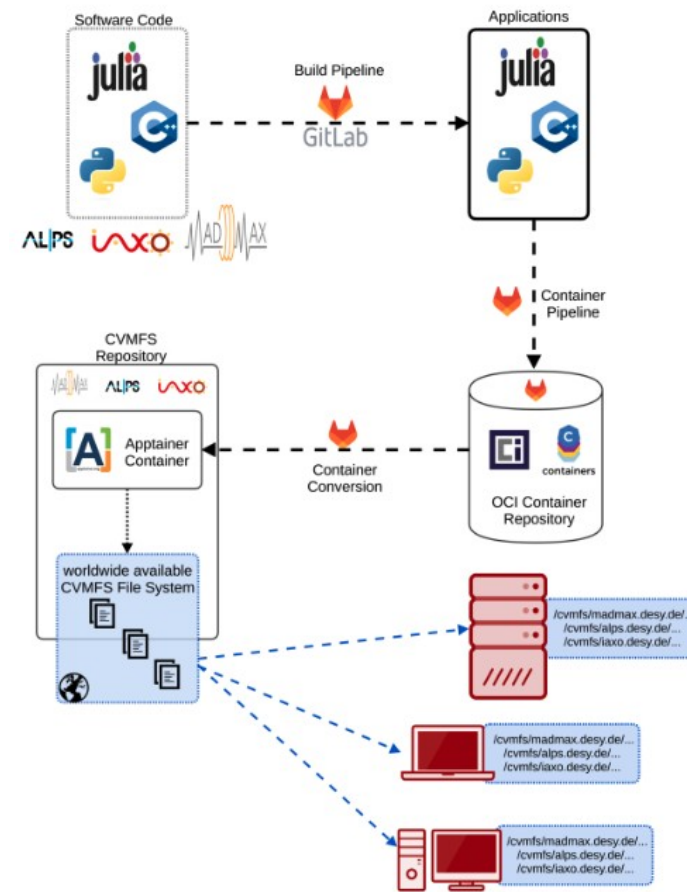
WLCG DC24

... and work for small local groups

- DESY participated successfully in DC24
- no limitations seen on the dCache side - rotating disks, movers,... have been able to cope without a dent
- network however: reached saturation
 - cap LHCONE traffic to avoid fallout to general DESY WAN



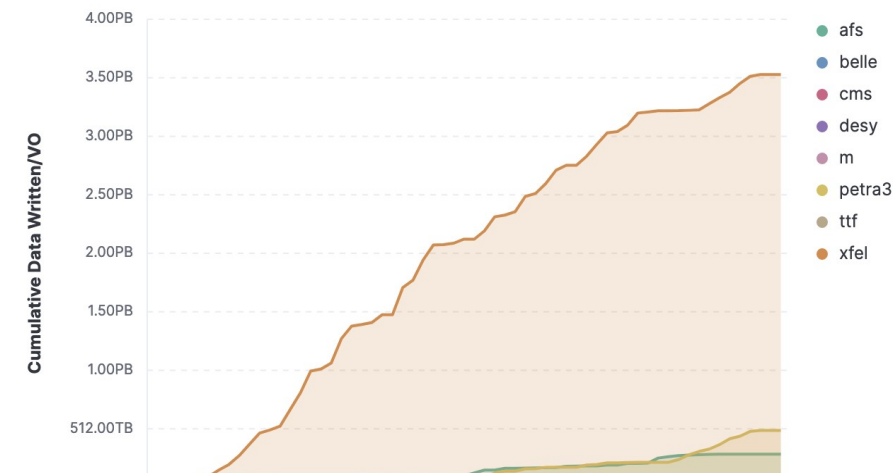
ALPS & IT: Pipeline using Gitlab, Containers and CVMS for NAF software deployment.



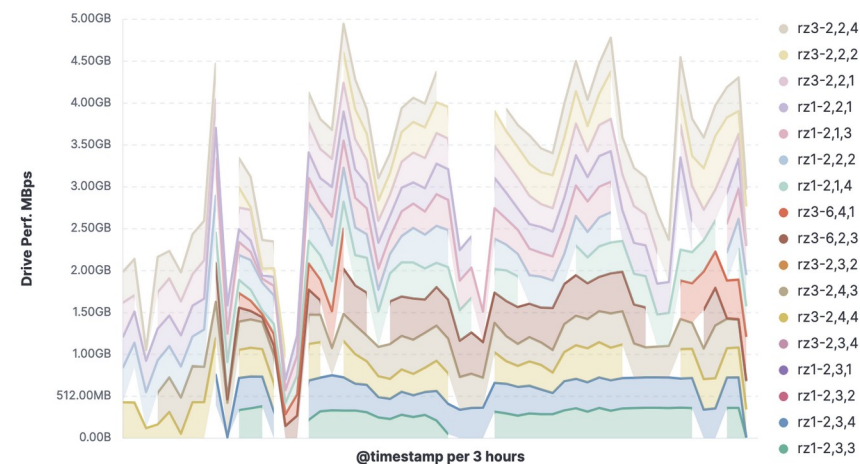
dCache & CTA (CERN Tape Archive)

- Migration of three dCache instances with tape backend done (DESY, XFEL, Photon)
 - ~130 PB, ~32M files, ~ 300 tape pools
- Configured three additional instances:
 - ATLAS, CMS, Machine division
- Operating CTA:
 - Performance OK
 - average 3-4 GB/s, 25 PB archived so far

Archived Data

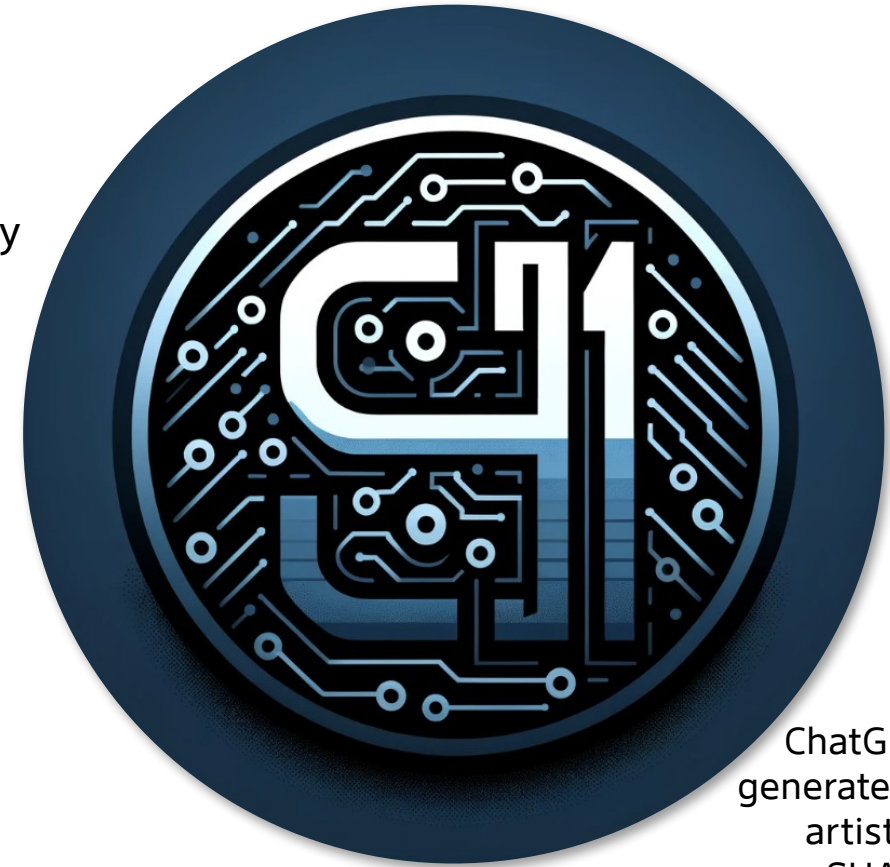


Write Performance



dCache + EL9 ... or: SHA1 issues

- EL9 globus based clients
 - Client always request proxy delegation
 - dCache <= 9.2.17 uses SHA1 for proxy delegation using 3rd party library
- dCache on EL9
 - Some root CA signed with SHA1
 - fetch-crl fails to update CRL
 - dCache rejects user certificates signed by such CA
- Solution on clients and servers:
 - update-crypty-policies --set DEFAULT:SHA1
 - until the last SHA1 root CA has gone



ChatGPT
generated,
artistic
SHA1
logo

Thank you!

Questions?

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HELMHOLTZ

