CS3 2025 - Cloud Storage Synchronization and Sharing

Wednesday 19 March 2025 - Friday 21 March 2025

LMU

Programme

The 2025 CS3 Conference will take place on 19-21 March 2025 at LMU Munich.

We look forward to meeting old and new colleagues within the CS3 community. Reconnect, inspire and get inspired, learn from each other and have some fun together, too.

The final agenda will be compiled once we collect all the contributions.

This event is part of an larger series of events: **TechWeek on Storage and Data Technologies.**

Keynotes

A community has to do what a community has to do.
Peer Heinlein, CEO and Founder OpenCloud GmbH

When proprietary products are discontinued or bought up by competitors, your own (decision-making) freedom can quickly become precarious. A discontinued product forces you to migrate, incurs costs, and imposes unwelcome decisions.

Not so with open source software: it offers me the freedom to develop the code further at any time, either on my own or with new partners, and to set up new support chains. The freedom not to have to migrate and the freedom not to have to work with an unpleasant service provider. Even drastic changes in product and business strategy can be avoided by taking matters into your own hands.

At least that's the theory. But does it work in practice?

This report is about a very recent case: about software that wasn't supposed to die, and a team that absolutely wanted to continue. It also shows where theory meets practice and the headwinds you have to face when you just go for it. But: a community has to do what a community has to do. And that can also mean: let's fork!

Main sessions

AI and storage

The "AI and Storage" track explores the potential of artificial intelligence and machine learning to revolutionize data storage and collaborative services.

Topics suggested by AI include
* AI-driven optimization of storage systems
* innovative data management strategies
* role of machine learning in enhancing storage performance and efficiency
* AI-enhanced file synchronization
* intelligent sharing protocols
* optimization of data accessibility across multiple devices

* automated data organization
* security measures powered by AI
* real-time collaboration tools that improve user experience.

User Voice: Innovative Applications, Data Science Environments & Open Data

Enterprise File Sync and Share (EFSS) services play a role in the research data lifecycle workflow, from data acquisition, collection, processing, analysis to publication, preservation and Open Data.

This track is intended to discuss integration between EFSS and other research services to cover the full data lifecycle: interactive notebooks, metadata aggregators, data repositories, preservation services, specialised data viewers, collaboration tools, documentation and more.

How can our services help in implementing and encouraging FAIR practices in real life? What should be the role of human interfaces and machine APIs?

This track is also a place to discuss novel applications and user scenarios which are enabled by the CS3 services with innovative data access and sharing functionality.

Keywords: JupyterLab & Notebooks, FAIR, ORCID, OpenAIRE, GPUs, Spark, Analytics, DTN, FTS, Grid.

File Sync & Share Solutions and Requirement from the Community

This is the track for software companies developing Enterprise File Sync and Share products (EFSS): evolution and latest releases, planned new features and development roadmap.

Past speakers included: Dropbox, Nextcloud, Owncloud, Powerfolder, Pydio, Seafile, Syncany

We expect to discuss community requirements in connection with the different solutions, such as scalabilty, technology evolution, interoperability, operational costs and the like.

We invite contributions from software companies and users.

Scalable Storage Backends and Integration with Data Processing

Effective storage solutions are a key factor for successful integration of CS3 services with processing farms for HPC, Machine Learning and Global Science.

In this track we provide a forum for providers and integrators of innovative storage solutions across all storage tiers: low-latency storage for data analysis and machine learning, online and near-line storage for data products and archival storage.

Solutions from vendors and experience from the sites will be discussed.

Collaborative Applications, Data Privacy and Data Classification

This track focuses on collaborative applications and techniques to enhance sharing and user experience for Office, Groupware and Productivity.

For this class of applications data privacy is a challenge and data classification is becoming a topic of interest.

While applications are typically provisioned fully on-premise some CS3 sites are exploiting hybrid models in which certain applications (e.g. office) are provisioned by external clouds while the storage stays on-premise.

We encourage input from application developers as well as site managers and policy owners.

CS3 federations and synergies with eResearch infrastructures.

There is a large overlap between CS3 sites and other eResearch Infrastructures (such as WLCG, EGI, SKAO, EU-DAT…) and services resulting from science cluster projects (such as ESCAPE, SSHOC, EOSC-Life,…).

This is a session to discuss co-evolution of CS3, Enterprise File Sync and Share (EFSS) services, EFSS federations and eResearch Infrastructures. Contributions are encouraged from all stakeholders.

CS3 Future in the European Open Science Cloud (EOSC)

European Open Science Cloud (EOSC) is the European Commission's Digital Single Market strategic initiative to remove virtual borders, boost digital connectivity, and make it easier for researchers, innovators, companies and citizens to access cross-border online content across the European Union.

In this session we will discuss the EOSC roadmap, available services and opportunities, as well as the role of EFSS platforms and federations such as ScienceMesh in EOSC.

Interoperability: protocols, APIs, OpenCloudMesh (OCM)

The community is involved in ongoing activities in the area of federation and interoperability, for example technologies such as OCM, CS3APIs and Reva.

In this track we welcome contributions regarding the status of developments and experience with prototypes and services.

Technology & Research

The traditional CS3 track hosts technical presentations of the building blocks of CS3 services, as:
* Algorithms and protocols for file sync and sharing;
* Sharing and metadata semantics;
* Service reliability and data integrity;
* Innovative desktop and mobile integration;
* Monitoring and performance analysis;
* New user interfaces;
* APIs and command-line tools.

CS3 Community Site Reports

There is a growing number of services deployed and operated in the CS3 community. This session is an opportunity to share the current status and plans, user feedback as well as operational experience. This session will provide a sort of family-photograph and a competence map of all CS3 services.

In particular we encourage newcomers to the community to introduce themselves and to present the status of their system and plans.