



Contribution ID: 1

Type: **not specified**

## EOS for Users - how to use the CERN physics storage system most effectively

*Monday 24 April 2023 10:00 (1 hour)*

The IT storage group provides end-user access to a 700 PB disk storage system: CERN EOS.

In this seminar we will explain your possibilities to use EOS storage as a CERN user most effectively for everyone!

### **Part 1** : Dive into the EOS eco-system

We will start with a brief introduction:

*How is the EOS service deployed and segmented? How do you get access to EOS storage and how you can authenticate to the service?*

We will explain the various access interfaces:

- Command line access using the shell
- Using EOS as a filesystem /eos/
- Remote access protocols root:// and https://
- Accessing EOS from applications like ROOT, C++, Python ...
- The CERNBox web interface

*You will learn, how you share access to files, folders or subtrees with your colleagues, how the permission systems of EOS and CERNBox interact, how you get an EOS drive on your Mac, Linux or Windows computer, how you can verify your quota, how you can understand where you use most of your space, how you can access EOS from outside CERN, what are the best access method for applications and many more useful hints for your daily work.*

We will finish with a short list of features, which are configured to mitigate user errors and service downtimes:

- Service & Data high-availability model
- Backup system
- File Versioning
- Undo Deletion using the EOS recycle bin

*If you deleted all your files, how can you get them back? Can you?*

### **Part 2**: Running workflows using EOS storage

This part will cover best practices for running interactive and batch workflows using EOS storage with few examples on a laptop/desktop, lxplus, the batch farm etc.

*What can you do to get efficient data access and what you should never do! How can you authenticate from GITLAB to EOS?*

We will also briefly give some insights, how EOS service managers might influence or change your access to EOS.

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**Session Classification:** EOS Seminars

**Track Classification:** EOS Seminars