

# CVMFS in ALICE

**TL;DR:**

we are happy and thank you

# ALICE numbers / users

**Dailies.** We deploy on CVMFS all our daily builds. 4 architectures (CC7, Alma8, Alma9, Alma9 ARM), 15GB per day.

**Asynchronous reconstruction / Analysis.** Used by both the EPN cluster and Grid productions / Analysis Train.

**Not used for synchronous reconstruction.** Minimising moving parts during data taking.

**Users.** No direct numbers for laptops installation. Gut feeling is that CVMFS is used only via lxplus by users, while local installation is by far the most popular method on own laptop.

# Development with CVMFS

**CVMFS remote store for alibuild.** aliBuild has recently gained support for CVMFS as a remote store. No need to download and unpack tarballs. Seamless integration with the rest of the "development story".

**On Lxplus CVMFS might become the default remote artefact store (read-only).** Pending issues to be understood:

- disconnected operations
- garbage collecting old builds without disrupting user experience

**Getting rid of S3.** For now, it's not in the plan and we are happy also with S3. Issues / needed developments:

- Automatically creating tarballs and serve them to CVMFS-less users
- Publish software without having to ssh to the publisher machine
- Querying CVMFS for the published packages in an optimised manner

**aliBuild-less usage.** For some specific packages (e.g. OpenData), we already have a way to build a user area reusing everything from CVMFS, even without alibuild.

# Deployment

**aliPublish.** packages are fetched from our S3 repository and unpacked / relocated to CVMFS via the aliPublish helper script (glorified cron job).

**No major issues.** It works essentially unattended and support from CERN/IT is top notch.

**Nice to have.** It would be nice to be able to migrate cron jobs from one publishing machine to the other to avoid systematic misconfigurations every couple of years.