

WLCG Traceability and Isolation WG: Current status

ALICE

ALICE plan to move users and sites from the legacy AliEn system to the new JAliEn grid framework in the course of LS2. JAliEn makes use of ALICE-specific certificates and tokens, as described in this [document](#) crafted for the Authorization WG. In short, pilot jobs will be equipped with a Job Agent token that is allowed to contact ALICE central services to obtain a user payload along with a token that is specific to that payload and will be used by that payload to interact with the central services for any data management operations (read/write/register files). Wherever containers can conveniently be used by jobs, e.g. through Singularity, the Job Agent will make use of them to isolate the payloads. The vast majority of sites are expected to fall into that category. Where containers cannot really be used, the payload will not be isolated. Sites where that is the case can be configured to run production jobs only, i.e. no user jobs.

ATLAS

Atlas will follow different scenarios, depending on the capability of the site:

- At sites where the payload is containerized we will have two proxies one for the pilot to carry out its tasks and a user robot proxy without roles for the payload. The payload will have access only to the user robot proxy. These sites with thus fall in the *Using containers to isolate user payloads from VO pilots* scenario
- At sites where the payload cannot be containerized we will run in push mode and there will be no pilot proxy only the user robot proxy. These sites will thus fall in the *Using VO pilots without VO framework capabilities* scenario
- At sites with no network connectivity there will be no proxy at all for obvious reasons.

CMS

CMS requires all of its sites to provide Singularity to the pilots and thus will use those resources following the *Using containers to isolate user payloads from VO pilots* scenario.

The only exceptions to this rule are:

- Short term exception for site deploying singularity: transition measure
- HPC systems: planned to be used only for production workloads

LHCb

LHCb's efforts on container integration (through Singularity) for DIRAC is currently focused on isolating the whole pilot with Singularity (not isolating the payload from the pilot), to improve compatibility and software preservation.

On the long term, after this first Singularity integration, LHCb intends to follow the suggestion of the WG and implement a second layer of Singularity/container isolation for the user payloads.