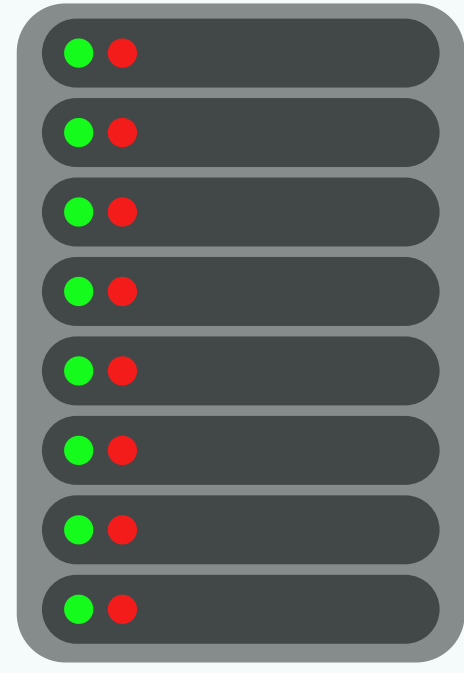
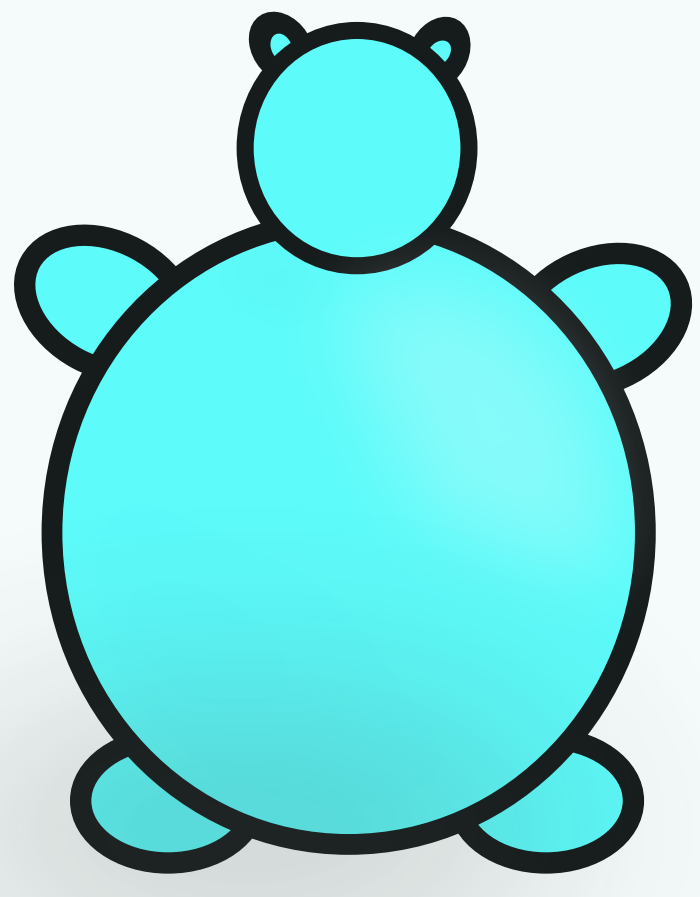


# DUCC

# Daemon Unpacker Container in CVMFS

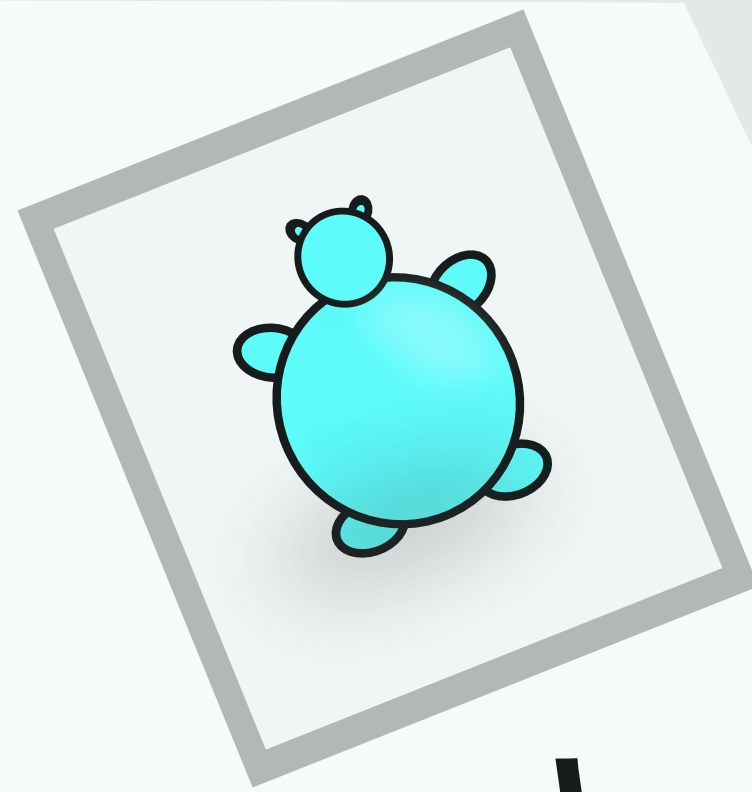
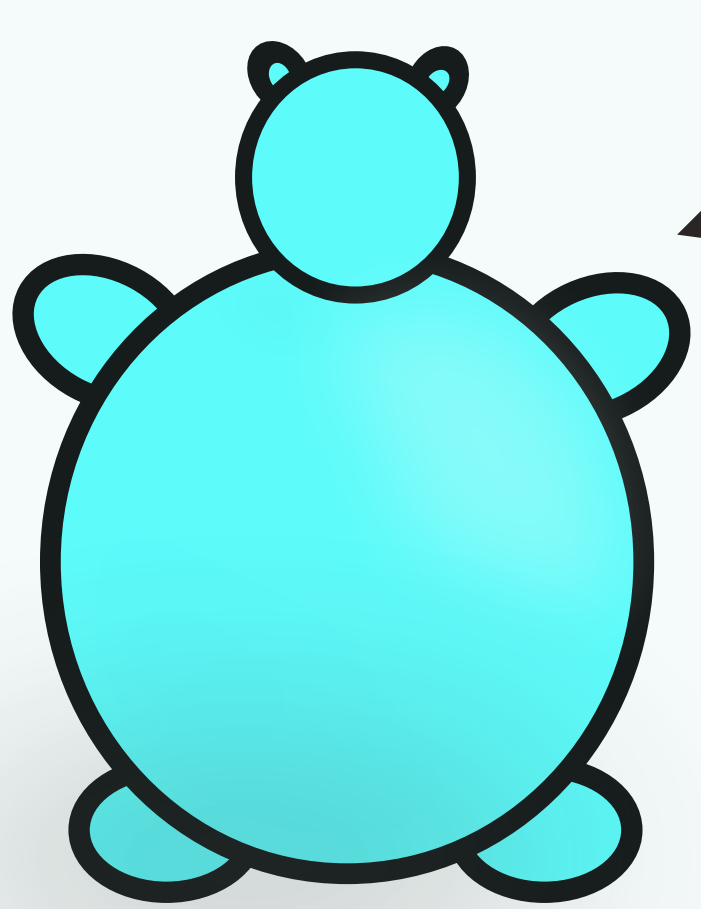


1

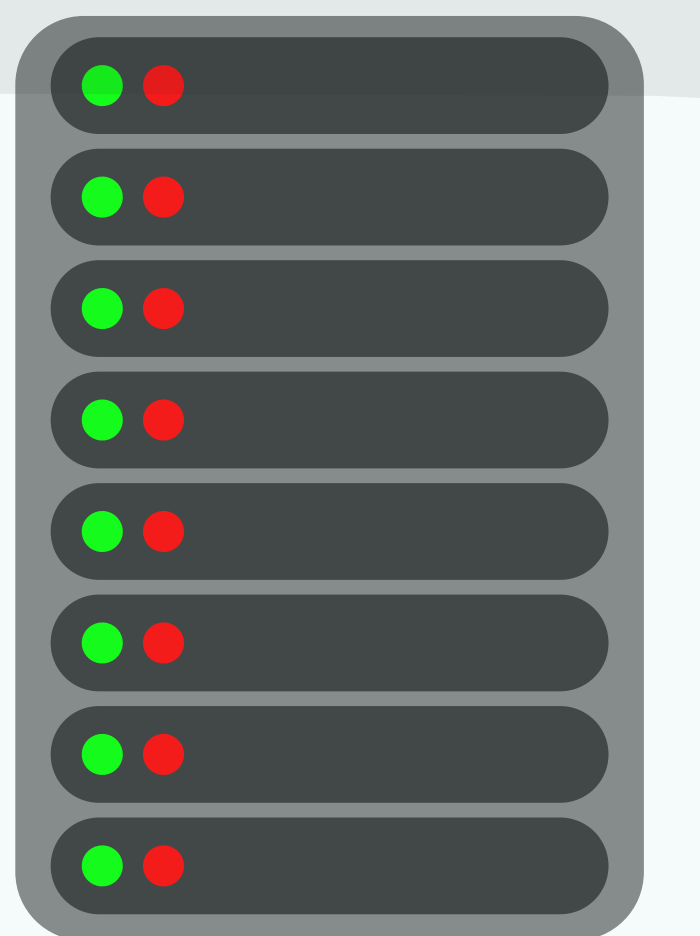
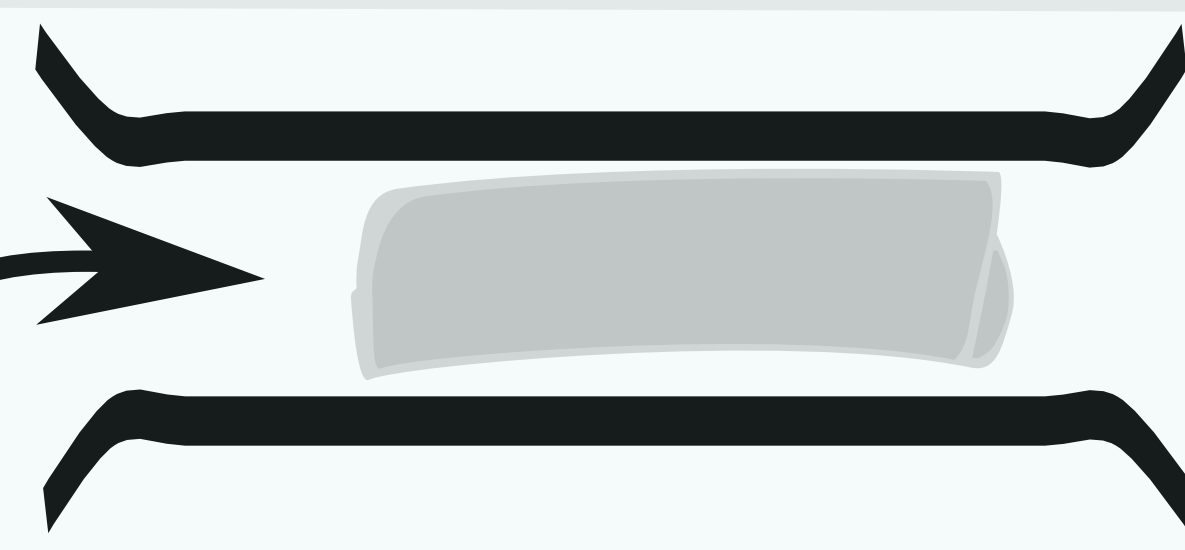
Scientific container images can be very large ~Gb and are hard to deploy at scale where bandwidth is limited.

2

DUCC transform a docker images into a tiny ~Kb "thin" image, a set of references to the original content of the image. The thin image is then send to the machines executing the workload.

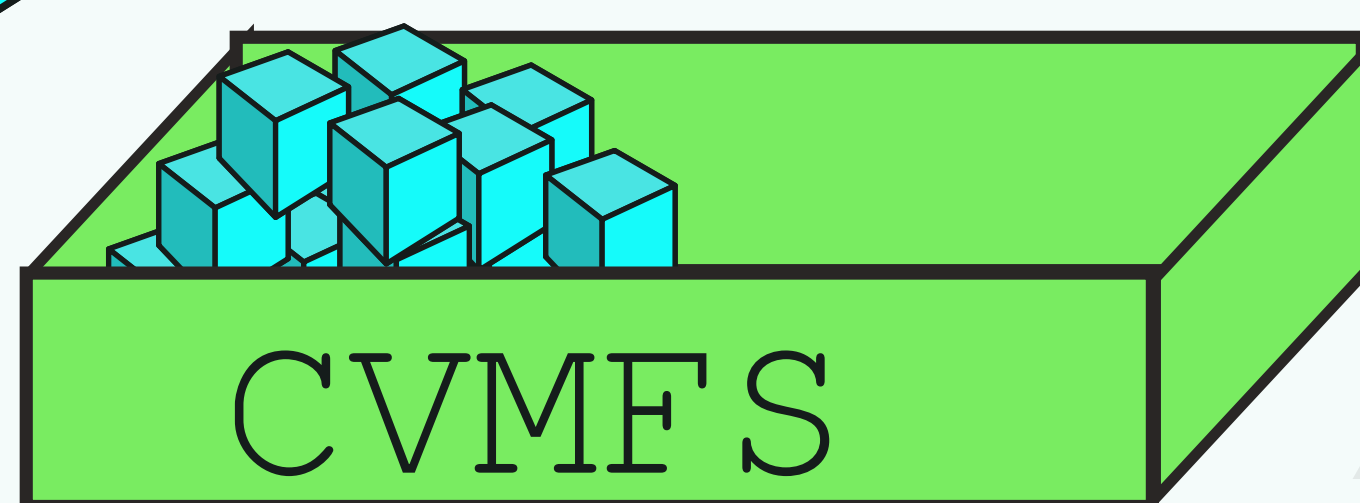
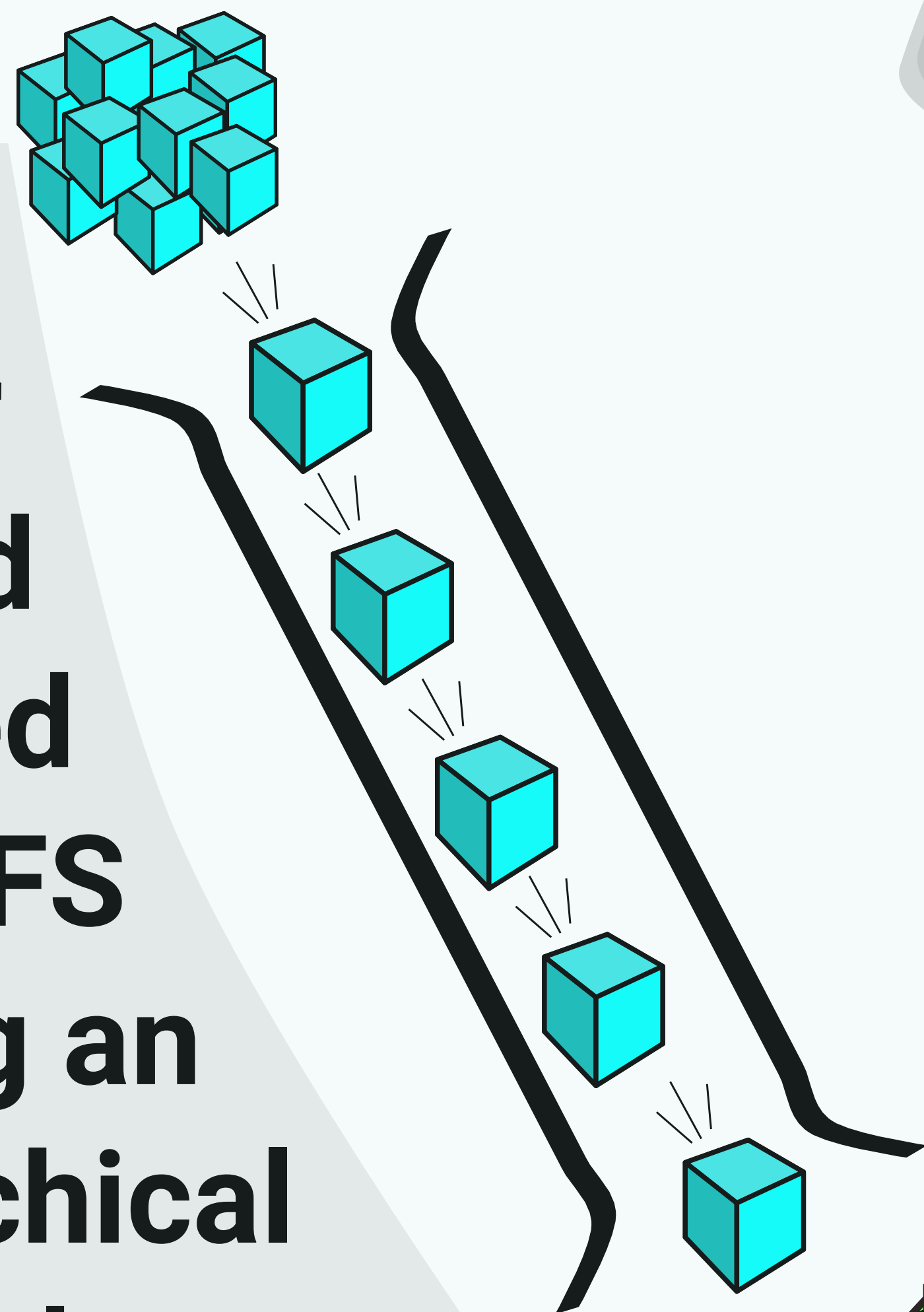


then send to the machines executing the workload.



3

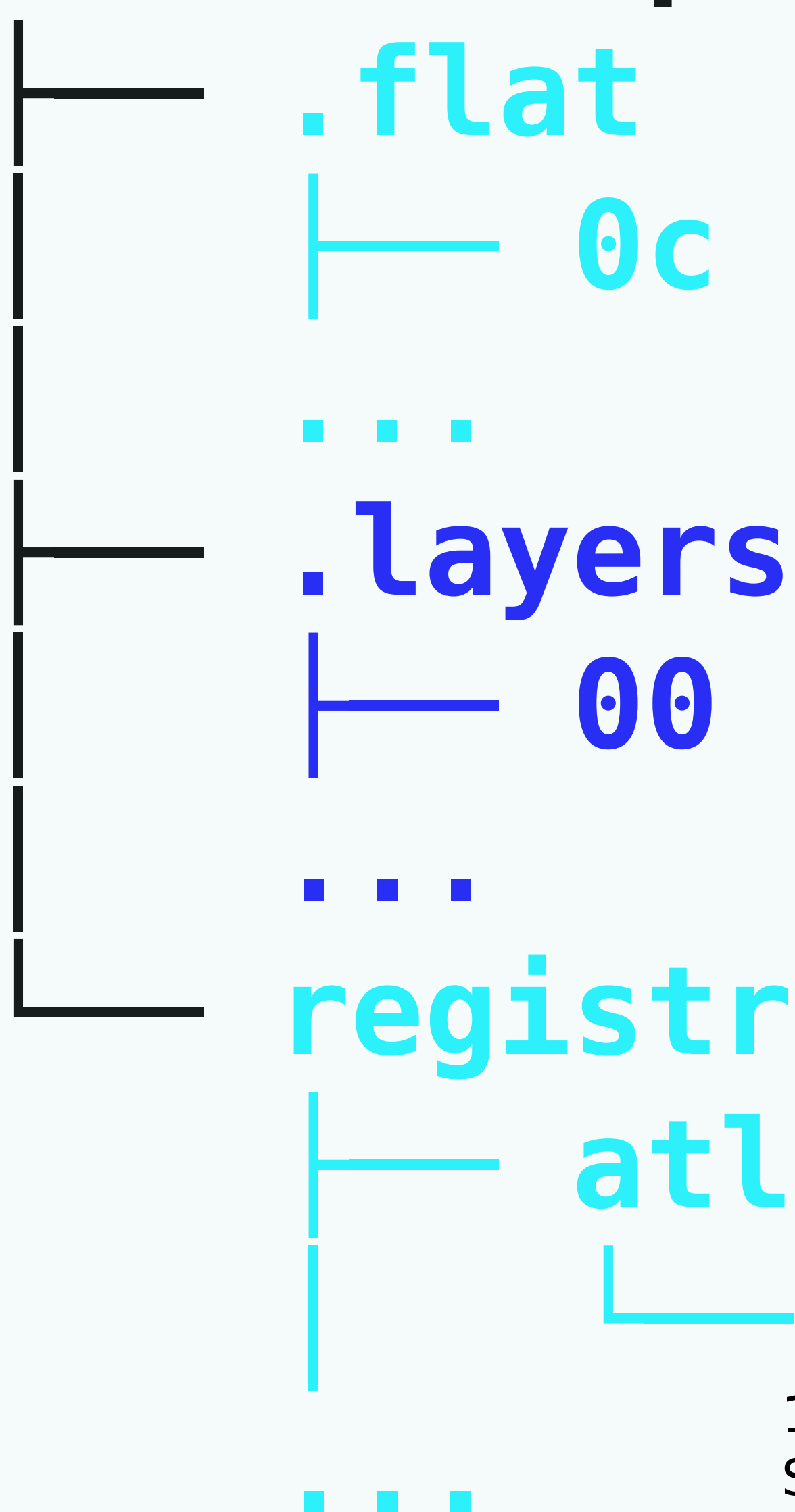
Each file in the container is ingested and published in CVMFS following an hierarchical schema.



4

The server run the thin image fetching only the strictly necessary content directly from CVMFS

`/cvmfs/unpacked.cern.ch`



Singularity 5

images are exposed following a hierarchical structure while pointing to an hidden directory. Docker layers are stored in a hidden directory, since they don't need to be accessed.

6

When an image is not necessary anymore is added to a garbage list, every 30 days all the garbage get collected and removed from