

### Use case:

# **Processing the LOFAR Two-Metre Sky Survey (LoTSS)**

- LOFAR radio interferometric data is large (~ 1 TB / hour)
- complex interplay of data calibration and sky brightness reconstruction ("imaging")
  - → mixture of high-throughput and high-performance computing

### **Special requirements:**

- data are stored on tapes (long-term archive)
- very large data volumes → having many copies unfeasible
- current software design requires powerful (single) nodes and sufficient scratch space (~5 ... 20 TB)

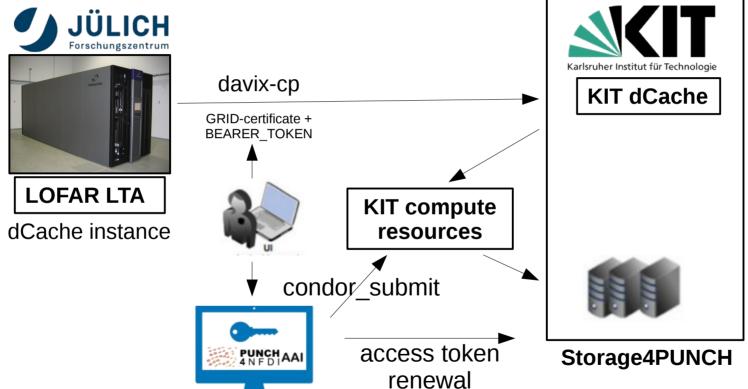






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#### **Experiences using C4P and S4P:**

- high demand for computing ressources, large transfer time
- → nodes used so far (KIT) sufficient for processing single fields in a reasonable amount of time
- → storage size also sufficient for intermediate storage

### What (in principle) prevents us to go for (semi-) automized bulk processing:

- manual token renewal prevents automisation of the process in a long run
- independent service for data transfer to the compute nodes and back supporting standard protocols, e.g. gsiftp
- proprietary data if observed recently → user/group priviliges management in S4P?

