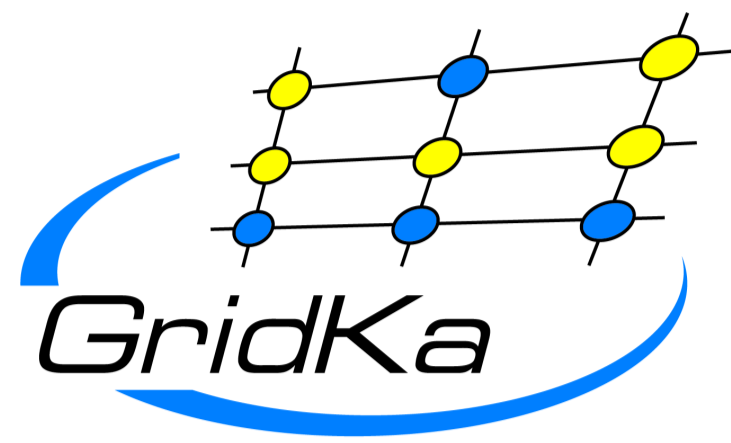


Forschungszentrum Karlsruhe in der Helmholtz-Gemeinschaft

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Doris Ressmann, Stephanie Böhlinger, Silke Halstenberg, Jos van Wezel



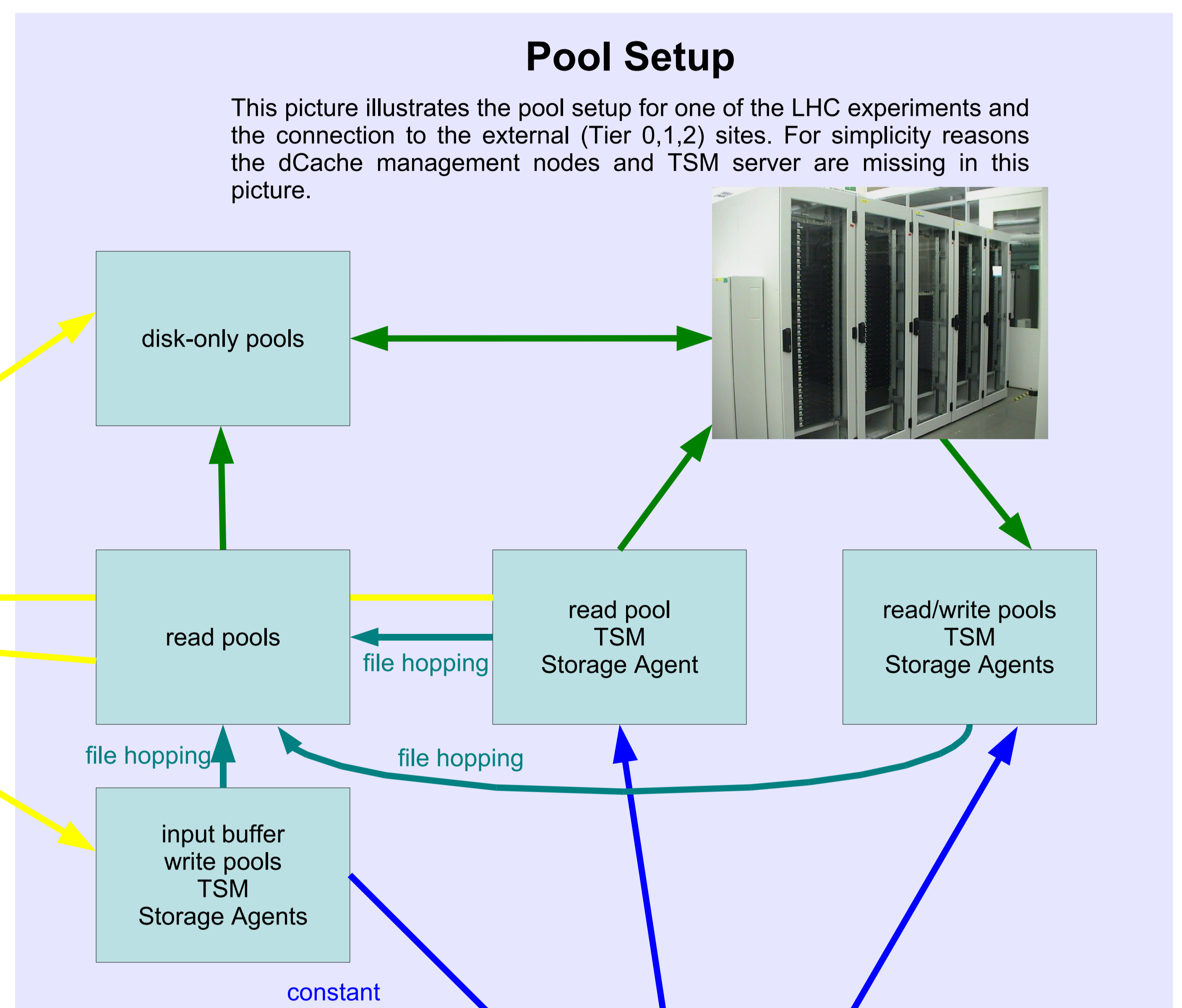
Data storage layout and architecture of the German T1

dCache storage area	866 TB storage on 233 dCache pools	ATLAS	BABAR	COMPASS	DO	LHCb	DTEAM / OPS / DECH	D-Grid	
48 Pools 48 TB TOD1 155 TB Tape connected	53 Pools 127 TB TOD1 91 TB Tape connected	no dCache Pools	13 Pools 12 TB Tape connected	62 Pools 16 TB TOD1 286 TB Tape connected	13 Pools 17 TB Tape connected	no dCache Pools	26 Pools 51 TB TOD1 6 TB Tape connected	16 Pools 8 TB TOD1 14 TB Tape connected	2 Pools 30 TB Tape connected

GridKa Data Management

At GridKa we have different types of storage areas.

- the classic storage element accessible only from the private network, using NFS mounted GPFS file-systems and access via xrootd
- production dCache version 1.7
 - accessible worldwide via LCG-GFAL, FTS, SRM v1, gridftp
 - accessible from the private network via dcap, xrootd, gridftp, SRM v1
- preproduction dCache version 1.8
This installation is for testing all new SRM 2.2 features, to be ready to install the new dCache version in production as soon as a stable dCache 1.8 version has been released.

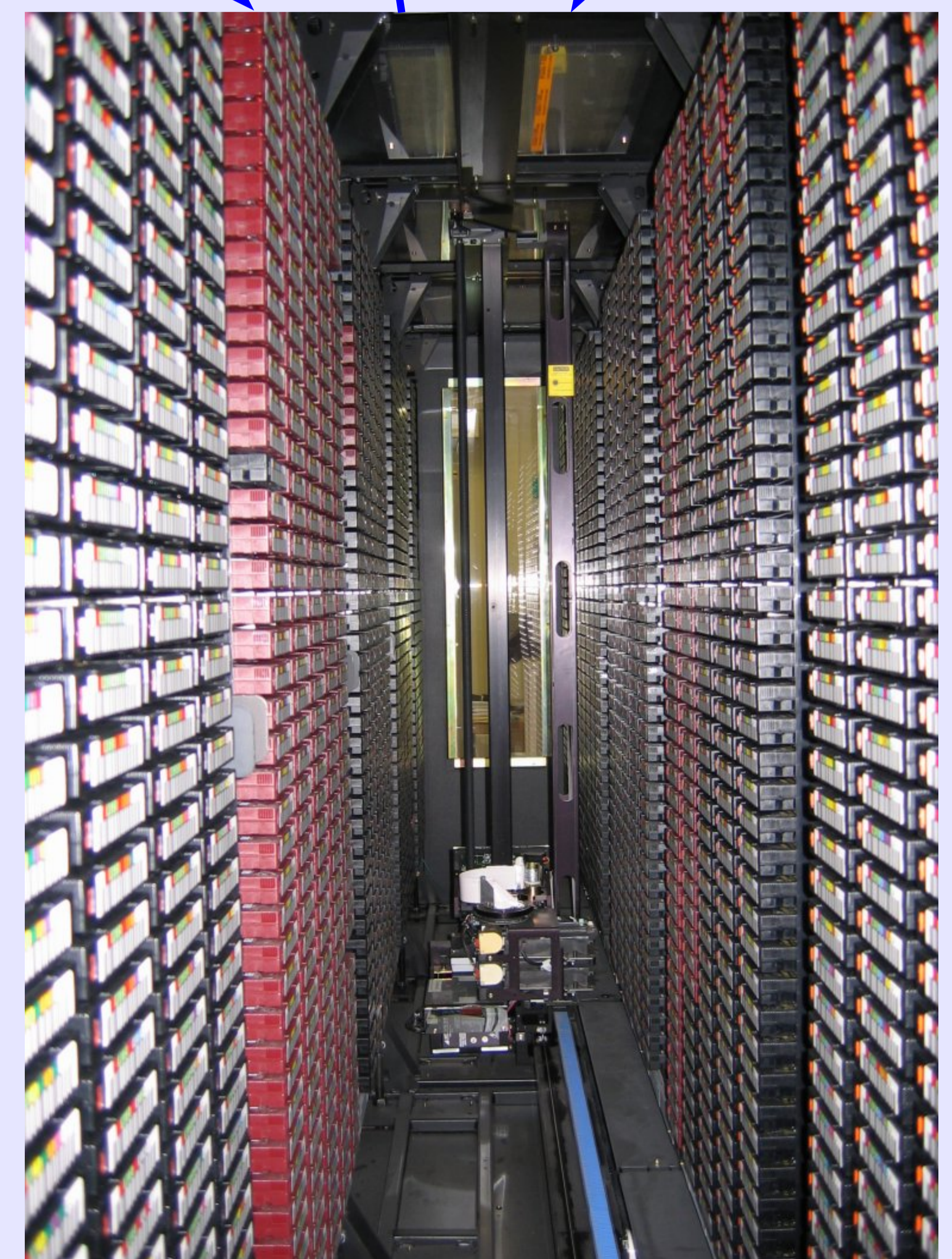
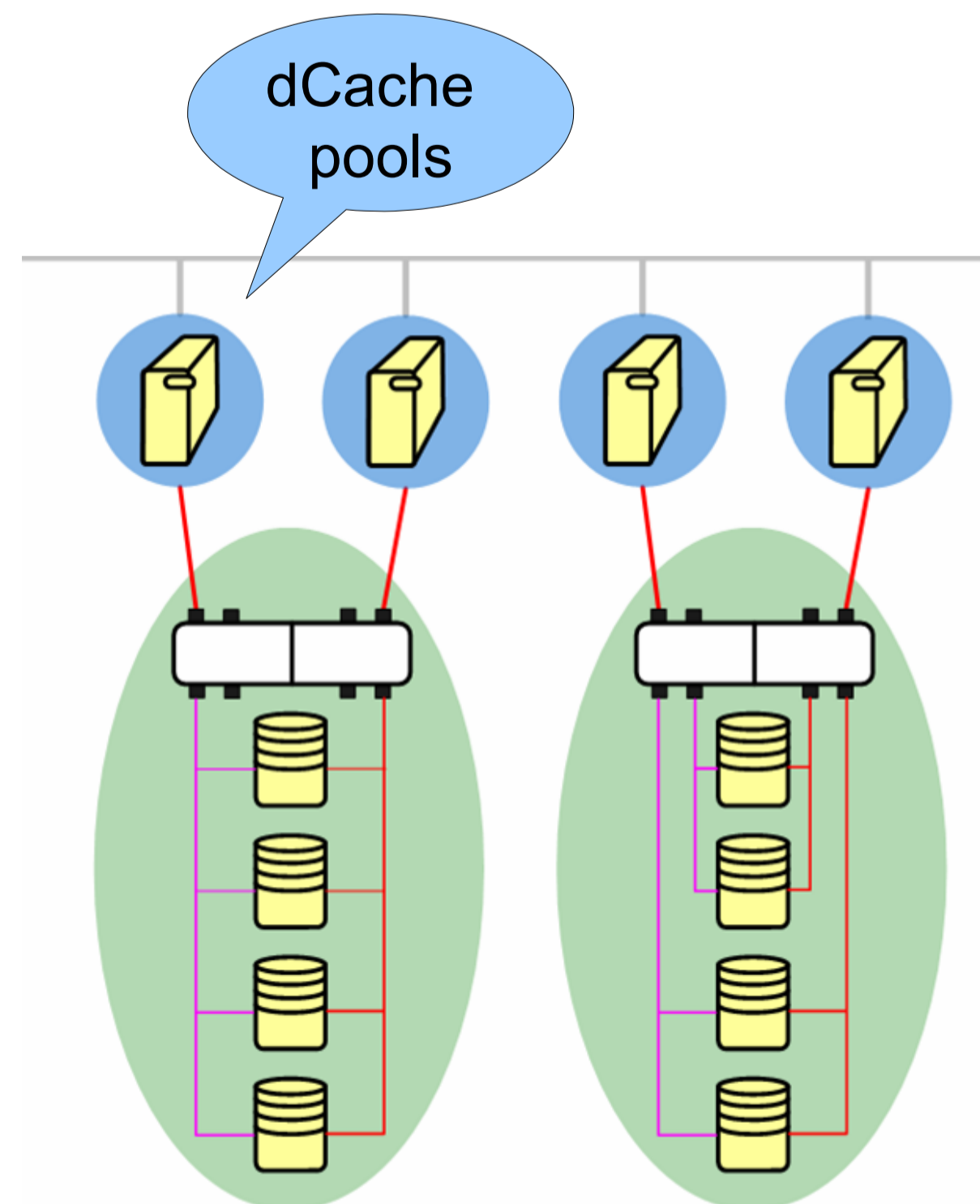


dCache Management

dCacheh1 2x2.8GHz 2.5 GB mem 31GB disk SL4 kernel: 2.6.9-34	gridka-dCache.fzk.de 1x1.9GHz 4GB mem 172GB system 92 GB dB SL-CERN kernel: 2.6.9-42	F01-015-111 1x3GHz 4GB mem 32GB disk mirror 135GB dB SL4 Kernel:2.6.9-34
dcap	gLite-SE	pnfsServer
dirDomain	srmDomain	Postgres DB
utilityDomain	InfoProvider	pnfsManager
lmDomain	SRM Postgres DB	Companion DB
dCacheDomain		
Admin-door	F01-015-103	
httpdDomain	Billing DB	
StatisticDomain	SRM Watch	
xrootdDomain		
gPlazma		

dCache Fileserver

Always two dCache file server have access to the same disk area, as such if one file server crashes, it is straight forward for the second to start the pools of the failed machine.



dCache 1.8 in pre production

- SRM 2.2
- limited VO support in pre production
 - OPS, DTEAM, ATLAS, CMS, LHCb
- Tape connection
 - dedicated TSM server
 - testing new Tape library
 - testing our dCache – TSM connection
- gPlazma authentication
 - different roles e.g. for space reservation
- separation of SE and SRM node
 - SE on a small virtual machine

Further GridKa poster:

- 75 A distributed approach for a regional grid operation centre by Sven Hermann
- 82 An interface to tape for disk pool managers by Jos van Wezel
- 92 Monitoring a WLCG Tier-1 computing facility aiming at a reliable 24/7 service by Andreas Heiss
- 96 Beyond Grid Security by Bruno Hoelt