

ATLAS dCache upgrade

- Will happen within weeks
- Downtime: 6 ~ 8 hours
- About 80 hosts

- dCache: v4.2 → v5.2
- Chimera, SRMDB, maintenance DBs: Postgres11 → Postgres12
- Java version: Java 1.8 → Java 11
- OS: RHEL 7.6 → RHEL 7.7

New features from dCache 4.2 → dCache 5.2

- XRootD TPC (third-party copying) support
 - unauthenticated mode, or with GSI (X509) authentication
- HTTP TPC (third-party-copying) matured
 - support X509, Macaroon
- Enabling of the Storage Resource Reporting (SRR)
- More robust and stable.
 - Many small changes target handling rare error conditions
- Logging becomes more detailed across the board. Improved error and status reporting in many places.

New features from dCache 4.2 → dCache 5.2 (cont.)

- Java 11 support
- Resilience Manager more robust
- New concept of “zones” to improve networking performance in geographically distributed dCache instances
 - service locality
 - data locality.
 - client locality.

New features of ATLAS dCache after the upgrade

- XRootD TPC (third-party-copying) support
- HTTP TPC (third-party-copying) support
- Storage Resource Reporting (SRR)
- DMZ intermediate pools for TPC in production scale: 14TB on 18 door hosts.