

Xcache status

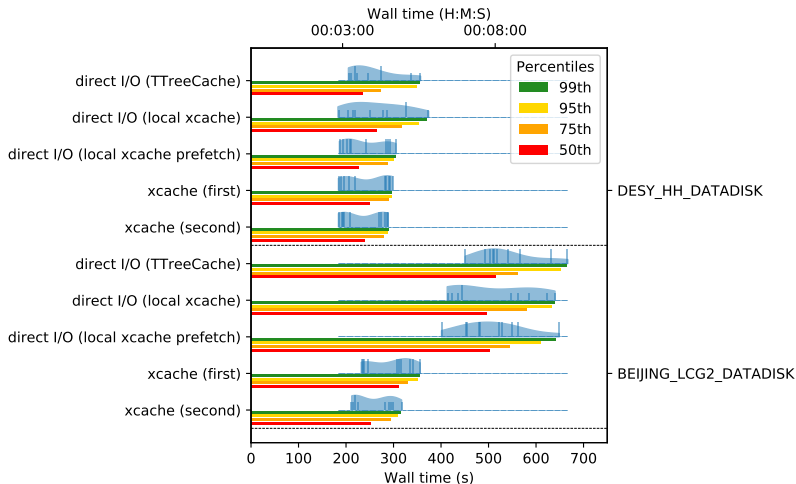
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Small follow up - prefetch for local xcache



→ time gain for loading from cache server (first time) probably due to better network connection and multiple download streams, rather than (only) prefetch

Issues in long-time running

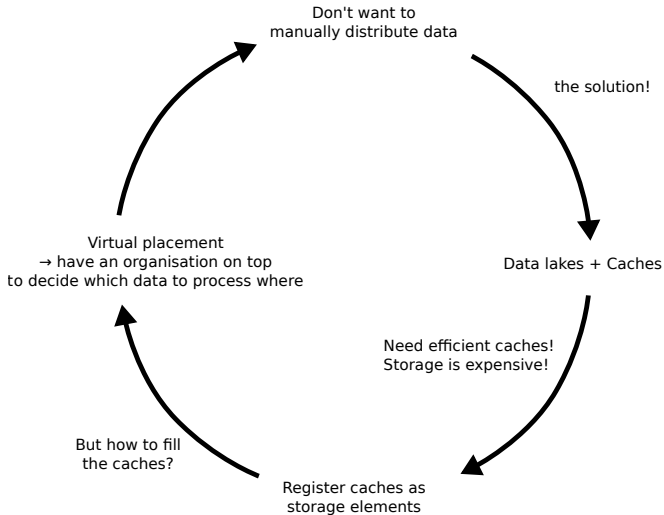
Observations for Xcache running in a production queue:

- Continuous rise in number of open files
(both sockets and cached files on disk)
- Clients get empty files or files with wrong checksum when open file limit is reached (or setting: 16k)
(although not 100% clear this is the only cause)
→ waiting for response from xrootd developers
- When trying to retrieve file later the checksum is correct
(but found an exception to that as well?)
- xrootd process on server regularly crashes with segfault
(didn't notice so far since the service is set to auto restart)

Whats next?

- Further small tests
 - submit a bunch of test jobs when xcache server is heavily loaded
- What are the limitations? What can a server like ours manage to do?
- Resolve issues/report bugs
- Look into http(s) caching (for containers)
- Whats the next (bigger) goal?
What do we want to achieve?

The data placement circle



Backup

Caching plan

Ludwigs-Maximilians-Universität München (Arbeitsgruppe Kuhr):

ATLAS und Belle II, HPC-Cluster SuperMUC-NG, ATLAS Datenmanagement *Rucio*.

Langjährige Erfahrung mit ATLAS Produktion, Einbindung von SuperMuc HPC, dCache und Xrootd Storage Systemen.

Arbeitsplan und Meilensteine:

2019: **A2.3** Installation des Xrootd Cache Systems auf C2PAP bzw LRZ-LMU Tier-2 (**M1**), Tests mit ATLAS bzw. Belle II Workflows und Feedback an A2.1 (**M2**)

2019/20: **A2.2** Vergleiche (Benchmarking) mit anderen Caching Systemen (**G1**)

2019/20: **A2.4** Entwicklungsarbeiten zur Einbindung des Caching Systems in das *Rucio* Datenmanagement - System bzw. ATLAS Produktions-System (**M4**) mit Unterstützung der Entwickler aus Frankfurt

2021: **A2.7** Anpassung an Anforderungen der anderen Projektpartner (**G2**)

2021: **A2.8** Release der Software (**G3**)