Requirements for distributing end user (analysis) containers in CVMFS

Dave Dykstra, dwd@fnal.gov

CVMFS developer meeting

11 May 2021

춘 Fermilab

End user containers in CVMFS

- Probably ~2 orders of magnitude more publishes than before
  - cvmfs transaction templates should help a lot because changes should be relatively small on top of large bases
  - Probably still need more powerful publishing hardware, faster I/O
- Development cycle is much shorter, expecting rapid turnaround
  - Jobs may start before container update is available. They could wait, but wasting cycles for long isn't good.
    - Probably need a standard job wrapper or probe that watches for the container
  - Long downtime not acceptable, need high availability
  - Need more frequent stratum 1 updates and shorter client delays
  - Prevent large updates from one user from blocking small updates from other users
  - Prevent long garbage collection from blocking updates
- Need a mechanism for cleanup of containers that will never be used again