ARC CE @ DESY-HH

Our experiences with ARC CE & HTCondor

Andreas Gellrich & Thomas Hartmann
Hamburg

DESY.

Epxeriences etc.

Subtitle here

- migrated from 2015 both CE/LRMS

  - from CREAM CE + PBS/MySched to ARC CE + HTCondor

- two main ARC CE nodes + pre-prod/testing/... ARCs

  - no shared fs

  - config in Puppet/Hiera

- HTCondor

    - ~20k cores

    - supporting ATLAS, Belle II, CMS, ILC, LHCb,...

- generally: when ARC CE are running, they are running :)

  - not much intervention needed

Issues we encountered on the way

- hit scaling issues with the Berkley DB
  - switched DB
  - ~more general: getting experiences with scaling to which job numbers

- modifying the submit side difficult
  - tried to inject/extend HTCondor submission side
    - fiddeling around in Perl scripts was somewhat cumbersome (documentation/support?)
  - in the end Condor job transforms were easier

- encountered CPU wait / I/O issues
  - VM storage backend was bottleneck with many file I/Os
  - optimal(?) fs for many jobs?

Wishlist

i.e., various ideas of various maturity...

- more modular/atomic less monolithic?

  - re-using/pipelining components

    - e.g., reusing accounting CARs to APEL for own purposes

- event streaming?

  - ARC CE as producer sending job status changes etc.