

T1 Status Update

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Outline

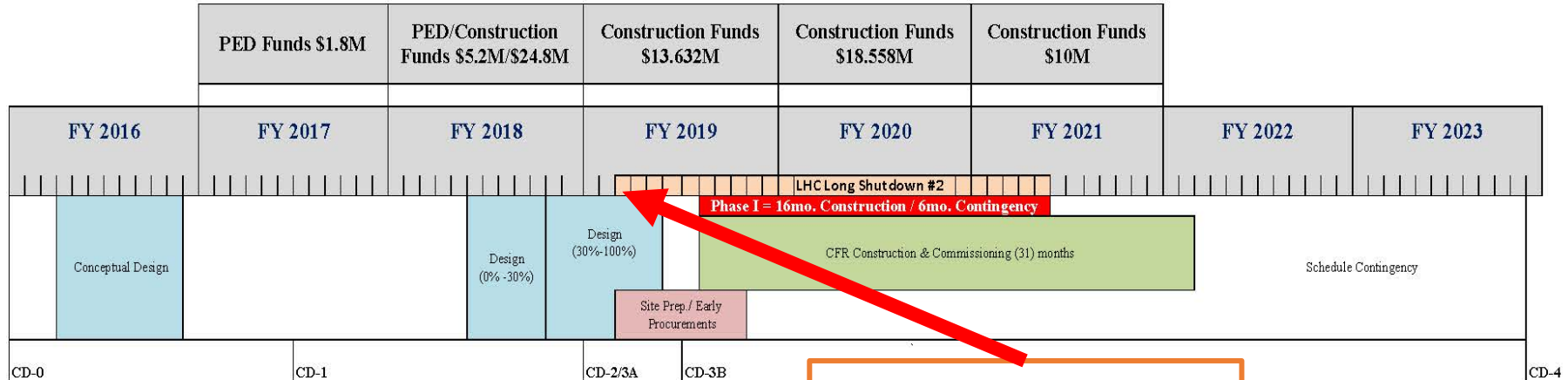
- CFR & The New Data Center
- T1 Computing Service
- T1 Storage Service
- Other Services

* *This is an update to the [report](#) from the last WBS meeting at BNL.*

SDCC New Data Center

CFR (Core Facility Revitalization) Preliminary Schedule & Cost

- Construction timed with LHC LS2 in mind
- Availability expected when LHC-HL program starts
- Total Project Cost on the order of ~\$75M



Progress on schedule !

T1 Computing Services

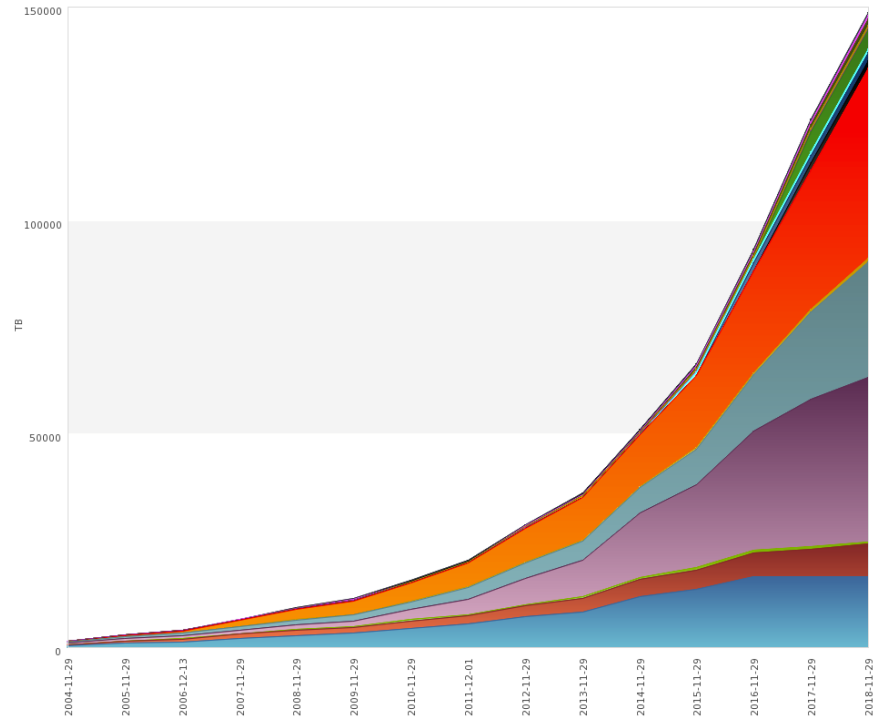
- Capacity : (no changes over the past 6 months)
 - ~220kHS06, ~20k job slots
- Evaluation of AMD EPYC
 - Looks promising in both cost and performance
 - More details, see Chris' [talk at HEPiX](#)
- Moving to harvester/UCORE PQ
 - Changes on CE (JobRouter) and local HTCondor (dynamic change of accounting group quota) are ready

T1 Storage Services (1/2)

- ATLAS dCache
 - Core server version: 3.0.11, NFS version: 3.0.38, pool version: 3.0.43
 - Evaluating new version 4.2.0
 - XROOTd
 - Enabled third party transfer
 - Increased size of disk cache for the tape read pools
 - 200TB (previous)
 - 2 PB (current)

T1 Storage Services (2/2)

- Tape Storage (HPSS)
 - ATLAS pledge : 49PB (real number 44.6PB so far)
 - Evaluated IBM TS4500 tape library/TS1150 drives, and Spectra Logic tape library
- New hardware
 - 4 new movers: DELL PE740XD
 - NetApp E5760 for disk cache (~500TB)



Others: CVMFS (plus Frontier cache)

- Upgraded all services to 2.5.1
- Created a “Stratum Zero” service for all experiments
 - PanDA job environment (e.g. lsm scripts) moved to it from afs
- Tightened ACLs on the cvmfs forward/reverse proxies and frontier caches
 - Only legitimate external connectivity (cvmfs/frontier related) allowed

Others: IPA

- Major migration to FreeIPA for LDAP and Kerberos authentication, for all SDCC user communities
 - Pave the road for future SSO
- Cutover date: 12/11/2018
- Impact on T1 services: transparent

Questions & Comments?