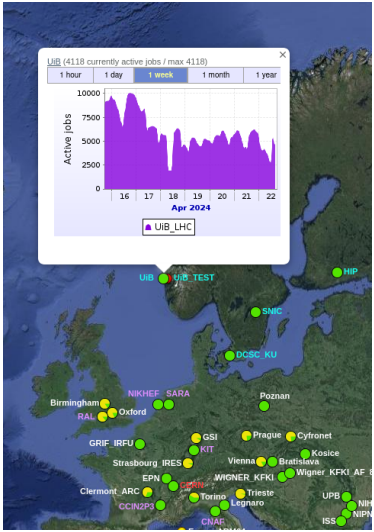
UiB site status report

Topics

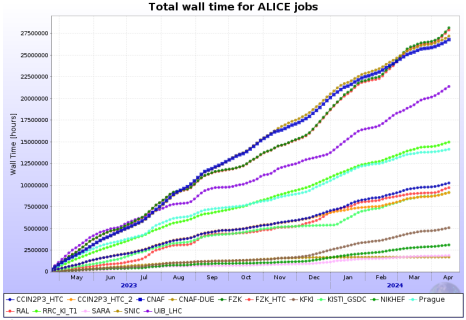
- Resource summary
- dCache Disk storage
- dCache Tape storage
- Computing Grid site
- Network
- Monitoring



http://alimonitor.cern.ch/map.jsp

Grid site compute

Wall time over last year



- installed: 325 virtual nodes with 16 cores $\rightarrow$ 5200 cores
- pledged: 55 kHS06
- all instances upgraded to Almalinux 9
- Site configured for JAliEn multicore jobs

Observations:

- too few jobs over long period $\rightarrow$ ALICE had to find balance between simulation jobs, pre-filtering at CERN, data analysis and other type of jobs
- large load on network, the 10 Gbit/s link to Bergen is exhausted
- inherently inefficient jobs running the old analysis framework

$\Rightarrow$ We are in a transition phase

UiB dCache pools

UiB disk pool status

node001_dcache_lhc_uib_no_Domain	251658240	47487575	
node002_dcache_lhc_uib_no_Domain	251658240	3889152	
node003_dcache_lhc_uib_no_Domain	251658240	104905318	
node004_dcache_lhc_uib_no_Domain	251658240	99497968	
node005_dcache_lhc_uib_no_Domain	251658240	105979147	
node006_dcache_lhc_uib_no_Domain	251658240	76952246	
node007_dcache_lhc_uib_no_Domain	251658240	66790329	
node008_dcache_lhc_uib_no_Domain	251658240	57458093	
node009_dcache_lhc_uib_no_Domain	251658240	58645289	
node010_dcache_lhc_uib_no_Domain	251658240	57102643	
node011_dcache_lhc_uib_no_Domain	251658240	63098776	
node012_dcache_lhc_uib_no_Domain	251658240	61929987	
node013_dcache_lhc_uib_no_Domain	251658240	62615365	
node014_dcache_lhc_uib_no_Domain	251658240	70091127	
node015_dcache_lhc_uib_no_Domain	251658240	76828557	
node016_dcache_lhc_uib_no_Domain	251658240	131861129	
node017_dcache_lhc_uib_no_Domain	251658240	130629079	
node018_dcache_lhc_uib_no_Domain	251658240	103726474	
node019_dcache_lhc_uib_no_Domain	251658240	69771247	
node020_dcache_lhc_uib_no_Domain	251658240	69680538	

UiB tape pools

- 2 tape write pools: one active, one standby
- pledged 2024: 4 PB

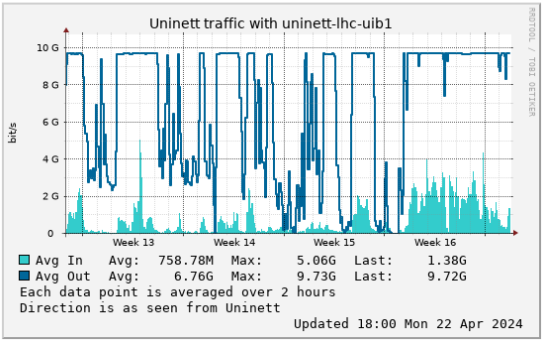
- pledged 2024: 5.6 PB
- 23 disk pools instances Almalinux 8, each mounting 240 TiB Ceph volume
- 3 new pool nodes still need to be added to disk pools
- Ceph backend: 49 Dell R740XD servers, 8.6 PB raw storage
  5.6 PB Ceph storage

Network

- 10 GB/s link is bottleneck
- JAliEn job do not implement data staging, the philosophie is that jobs are mosly running on data in the local storage
  $\rightarrow$ does not work for distributed T1
- Currently negotiating with Sikt (the national provider)
- Preparing technical implementation in NREC

Uninett LHC link Bergen

Last 31 days average traffic



Summary and plans

- Study Hepscore on the virtual resources
- Network upgrade to be finished before summer
- Tape upgrade fall 2024, planning ongoing, some reorganization in the server room
- Purchasing new compute and disk storage resources in 2025, planning starting fall 2025
- More detailed Grid job performance studies