



LHCb, DUNE and ipv6

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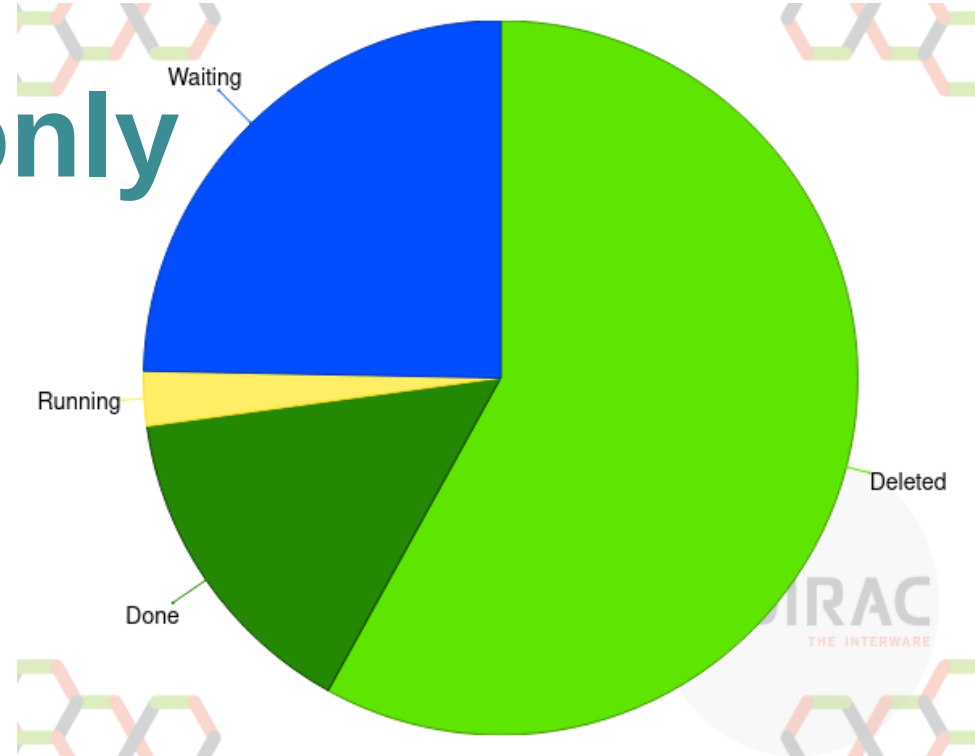


LHCb and ipv6

- DIRAC made ipv6 compatible in 2015
 - Well used
 - LHCb, CTA, Belle, ILC, multi-VO installations, ...
 - Seamless usage on the grid
 - Dual stack and ipv4 / ipv6 alone
- Recently many updates to DIRAC
 - python3
 - Some continuing headaches
 - To watch out for
 - REST interface for ARC CE





LHCb and ipv6-only

- Looking at ipv6-only (Brunel)
 - Runs multi-core pilots
 - Right : Pilots finished in last week
 - Below : one multi-core pilot
 - We have a problem here?
 - Too few resources?
 - Only two running pilots
 - Idle machines in dc2-grid-25?
 - Otherwise running well
- Brunel is so far the only site offering pure ipv6 resources for LHCb



Selected Statistics

Status

	Key	Value
	Deleted	47 (-75)
	Done	12 (-44)
	Running	2
	Waiting	20

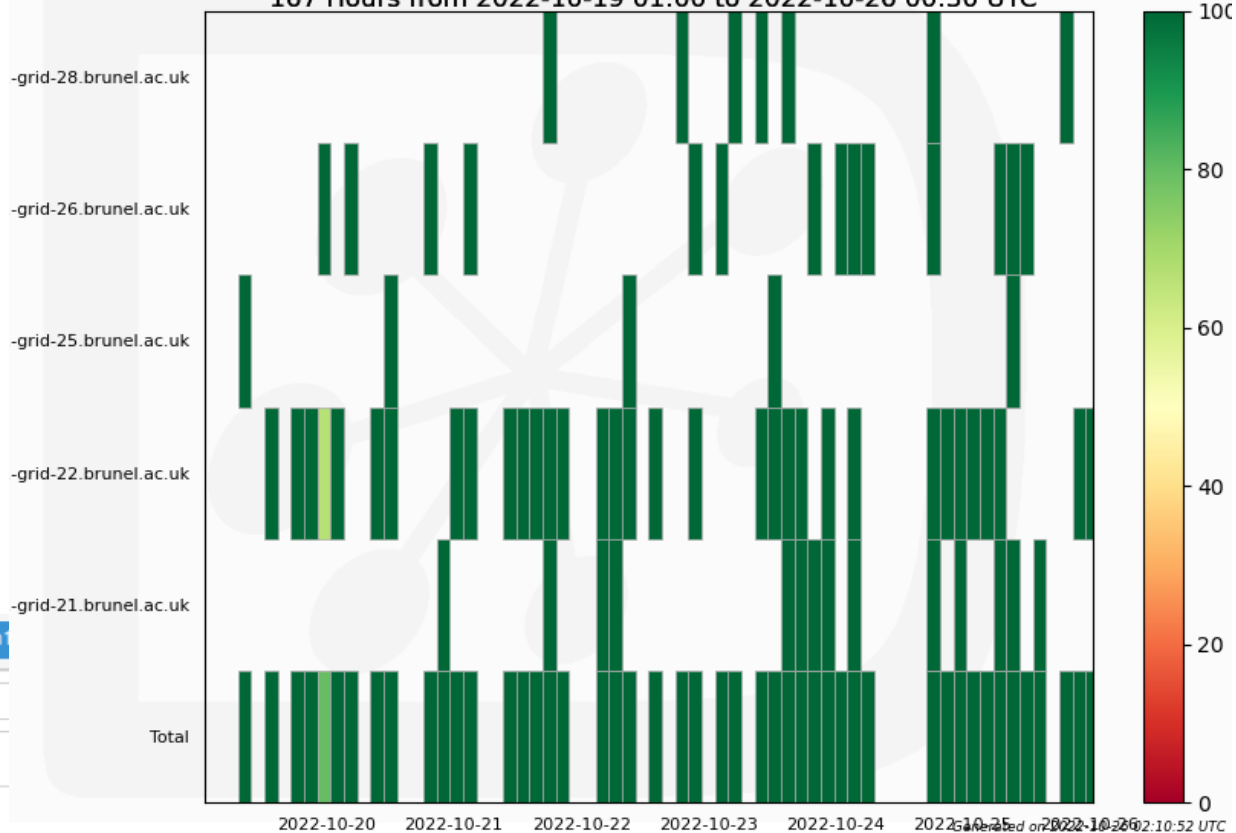


LHCb and ipv6-only

Brunei
again

Pilot Submission efficiency by CE

167 Hours from 2022-10-19 01:00 to 2022-10-26 00:30 UTC



LHCb Job Monitor [gsiftp://dc2-grid-25.brunel.ac.uk:2811/jobs/5gCMDm

JobId ↓	Status	Mir	Application...
680375487	Done	Execi	Job Finishe...
680318327	Done	Execi	Job Finishe...
680297074	Running	Appli	Gauss step 1
680236230	Running	Appli	Gauss step 1
680217574	Done	Execi	Job Finishe...
680189988	Done	Execi	Job Finishe...
680189958	Done	Execi	Job Finishe...
680189401	Done	Execi	Job Finishe...
680144229	Done	Execi	Job Finishe...
680142694	Done	Execi	Job Finishe...
680079642	Done	Execi	Job Finishe...
680079262	Done	Execi	Job Finishe...

Single
pilot



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LHCb and ipv6 connections

Connections to LHCb VO-box Configuration Service

Site	Dual-stack	Total	ipv6 only	Ipv6 fraction %
PIC	Yes	21351	10539	49
RAL	Yes	31449	168	1
NIKHEF	Yes	15353	7743	50
IN2P3	No	26787	0	0
CNAF	No	26358	0	0
GridKa	Yes	21142	10448	49
CERN	Yes	32895	16781	51

Connections in an approx 2 hour window yesterday to the VO-box configuration service



DUNE and ipv6

- Mandate from DOE to move to ipv6-only by 2025
 - Fermilab ipv6 testbed available for use
 - Not yet used by DUNE for own services
 - dCache is already dual-stacked
- Most DUNE stuff from ATLAS / CMS / CERN
 - Glide-in, rucio, CVMFS, FTS, ...
- No specific DUNE updates on ipv6
- Will be adding storage tests to DUNE-ETF
 - Will look at adding a hook to ipv6 there
- News later today from Nick / Phil

