DUNE signoff

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Introduction

- Computing effort not yet mature (still)
  - Computing model not yet finalised
  - Metrics and plots not yet readily available
    - Still understanding / rationalising different sources
  - Running off shared instances
    - Job submission and monitoring
    - FIFE, UCSD glide-submission, ...
- Computing consortium working on improving the situation
- Number of running jobs not very high
  - Quite "bursty"
  - Known issue (still)
- RAL overall running quite well for DUNE
  - Many thanks!

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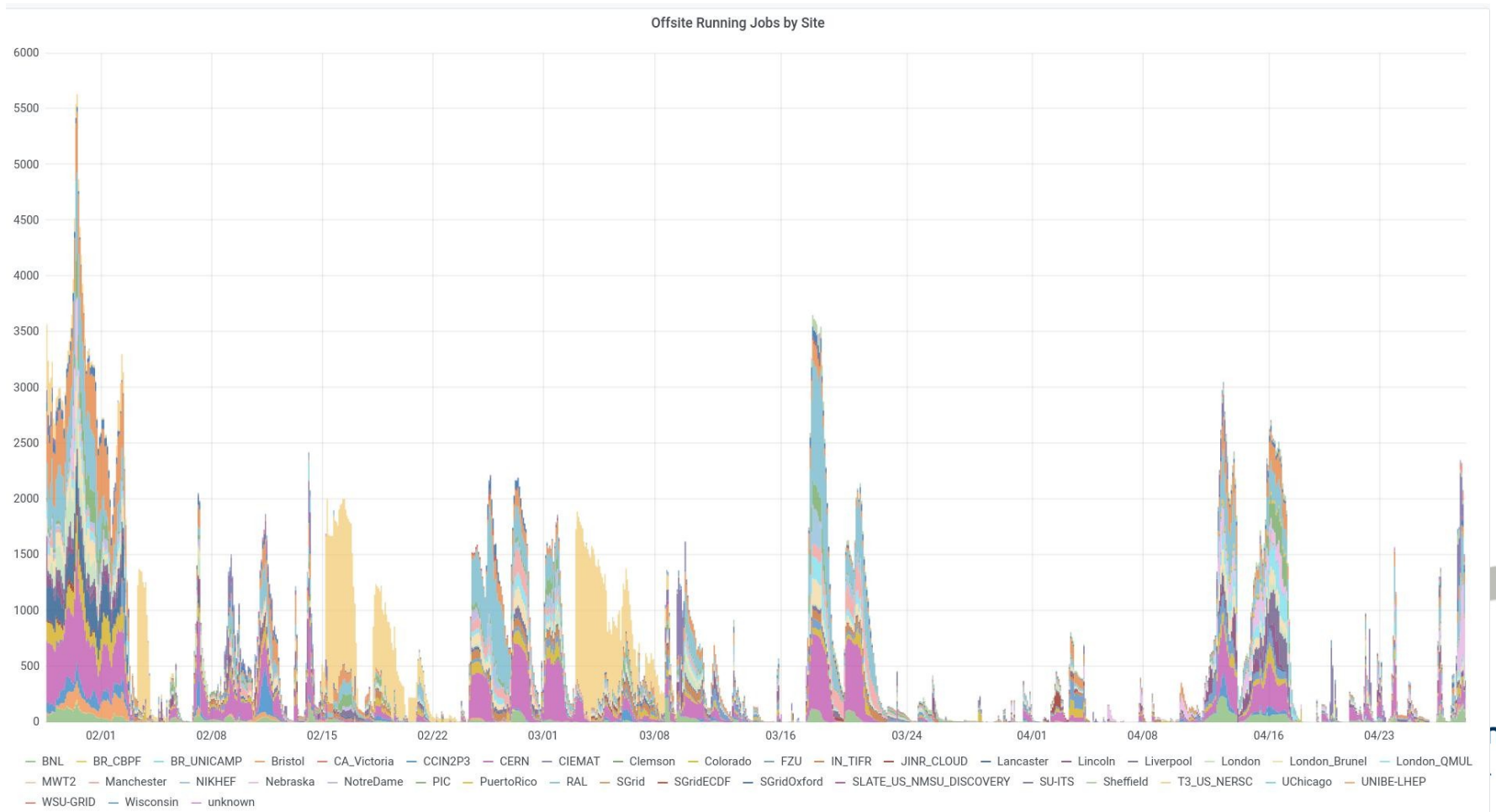Facilities Council

DUNE jobs summary

- Most jobs are multi-core
  - 8-core jobs at RAL
  - Lots of TensorFlow usage
- Look forward to https for data transfers
  - Xroot5 in May (crossing fingers)
- Software not yet mature enough to run all needed simulations
  - Still too bloated to run on the grid
  - Some effort from DUNE in moving users to "off site" (non-Fermilab)
- Too little computing manpower
  - Spread too thin to worry about smaller details
- glide-in WMS probably not yet properly tuned for RAL
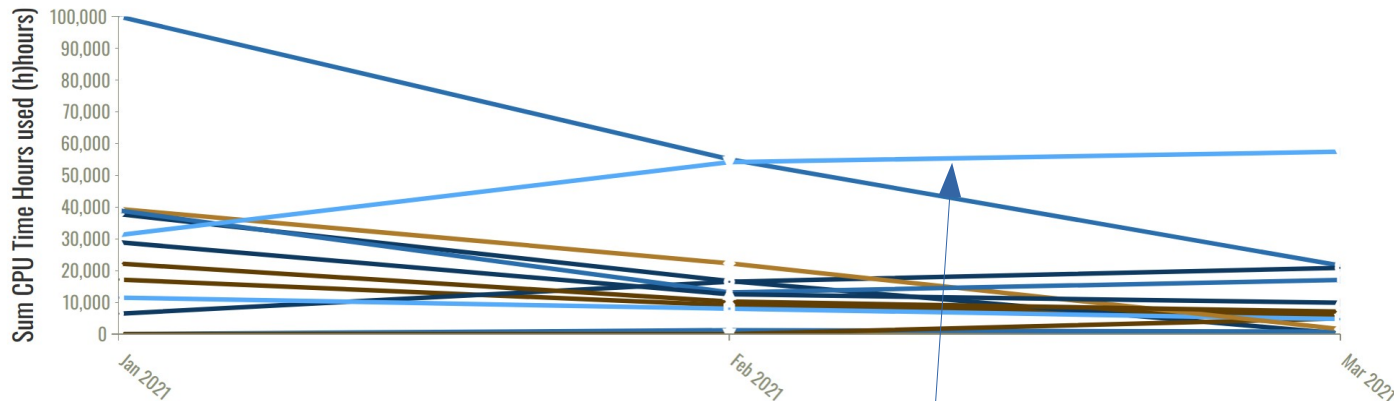 - Seems to perform much better in last couple of months

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CPU used at RAL : FIFEMon

Offsite Running Jobs by Site
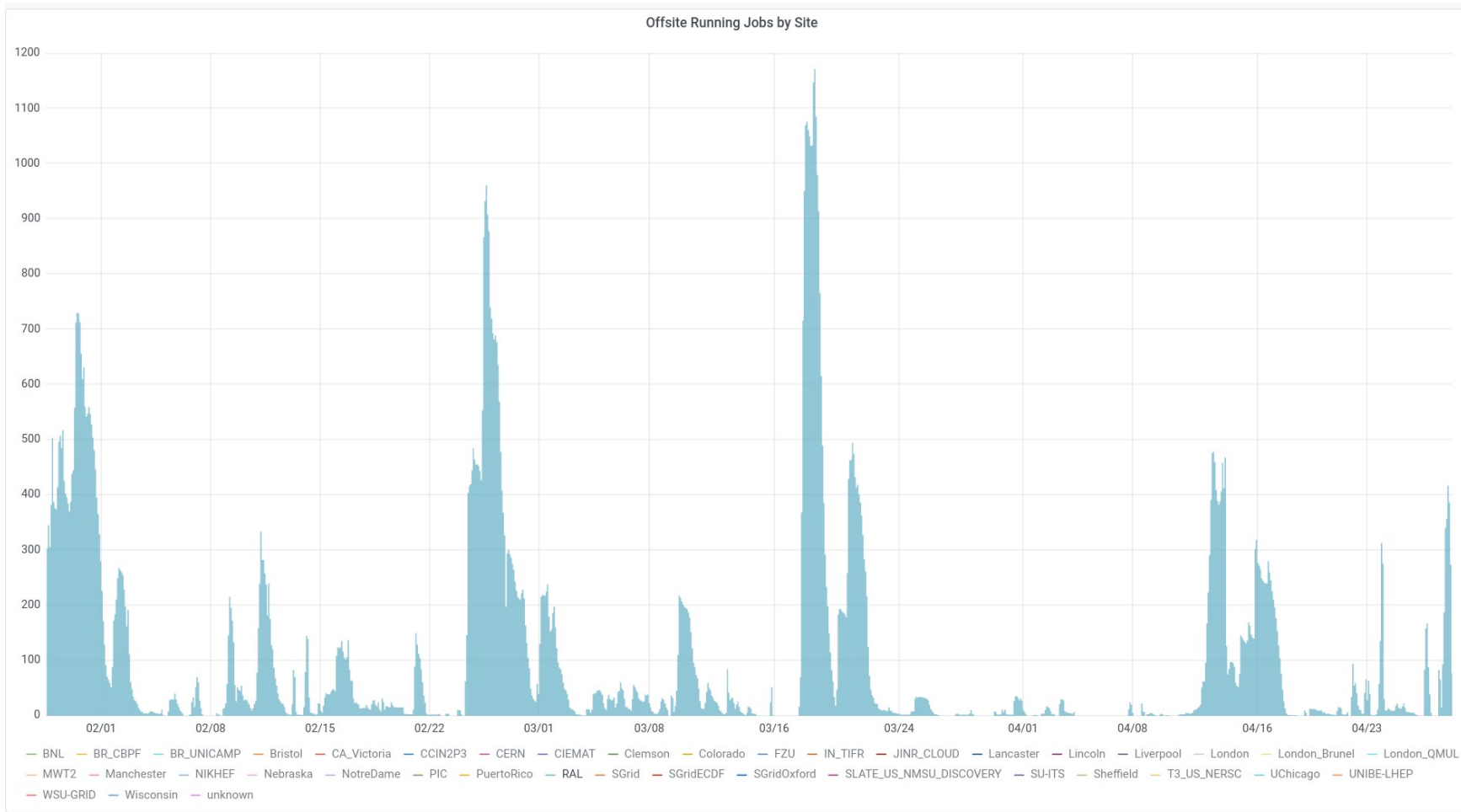
CPU used at all sites : FIFEMon

Offsite Running Jobs by Site

CPU used from EGI Accounting
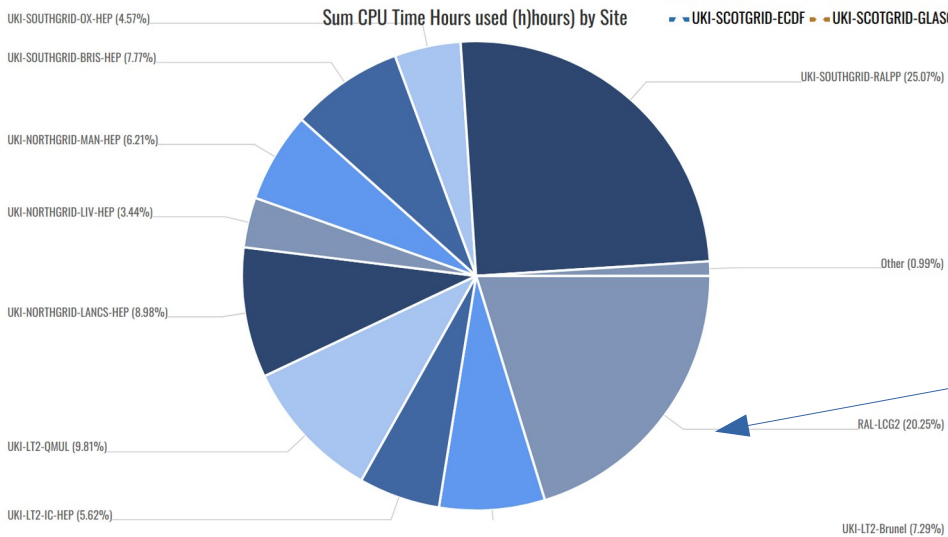
Storage used at RAL

- ➢ From DUNE rucio

  (1.19) -bash-4.2$ rucio list-rse-usage

  RAL_ECHO

  USAGE:

  ------

  used: 954.960 TB

  rse: RAL_ECHO

  updated_at: 2021-03-11 23:23:10
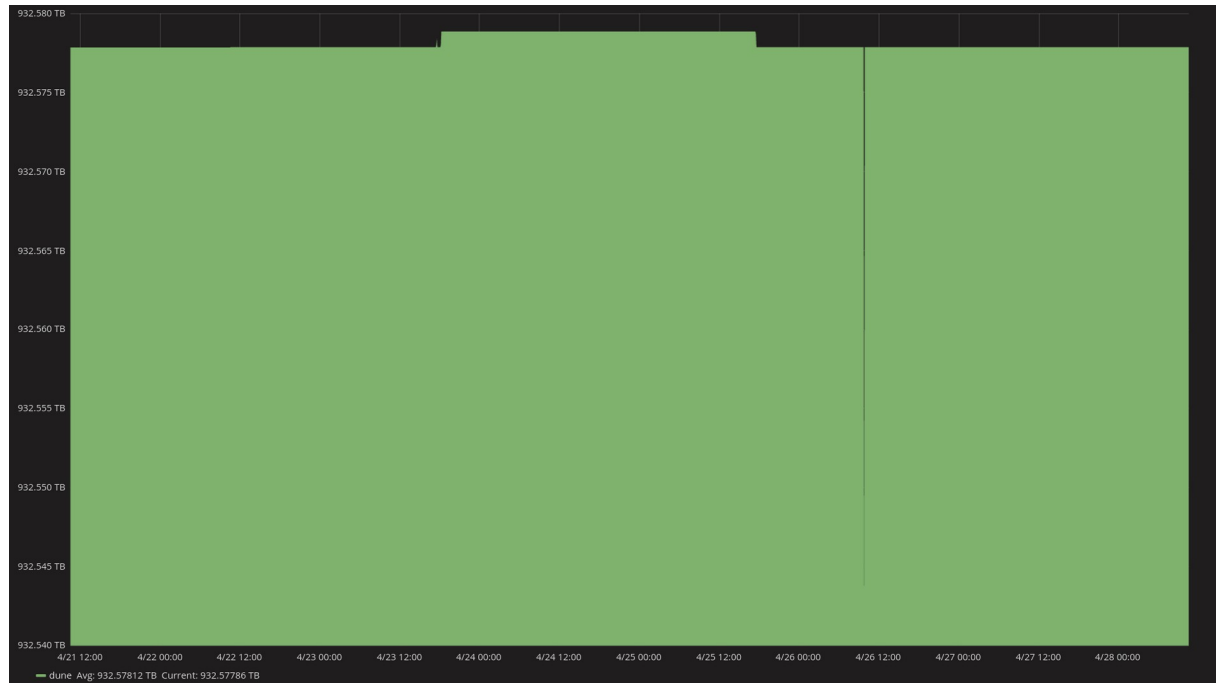
  free: 45.040 TB

  source: storage

  total: 1.000 PB

  rse_id: 74b1c7c3d91f4afd9df68e76b6b798ca

- ➢ Mostly stable over many months
- ➢ Note : Allocation 1PB

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DUNE storage allocation in the UK

[rucio] RSE allocation and usage – UK

⬆ Export

RSE	↓ RSE Quota	IRIS Allocation	Used	Free	Free(%)
MANCHESTER	980TB	1PB	219.5TB	760.5TB	77.605%
RAL_ECHO	909.5TB	1PB	868.5TB	41TB	4.504%
LANCASTER	250TB	0.5PB	24.8TB	225.2TB	90.088%
RAL-PP	9.1TB	0.5PB	10.1GB	9.1TB	99.891%
QMUL	9.1TB	1PB	19.5KB	9.1TB	100%
LIVERPOOL	1TB		549GB	475GB	46.388%

Above table from DUNE-UK storage monitoring

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