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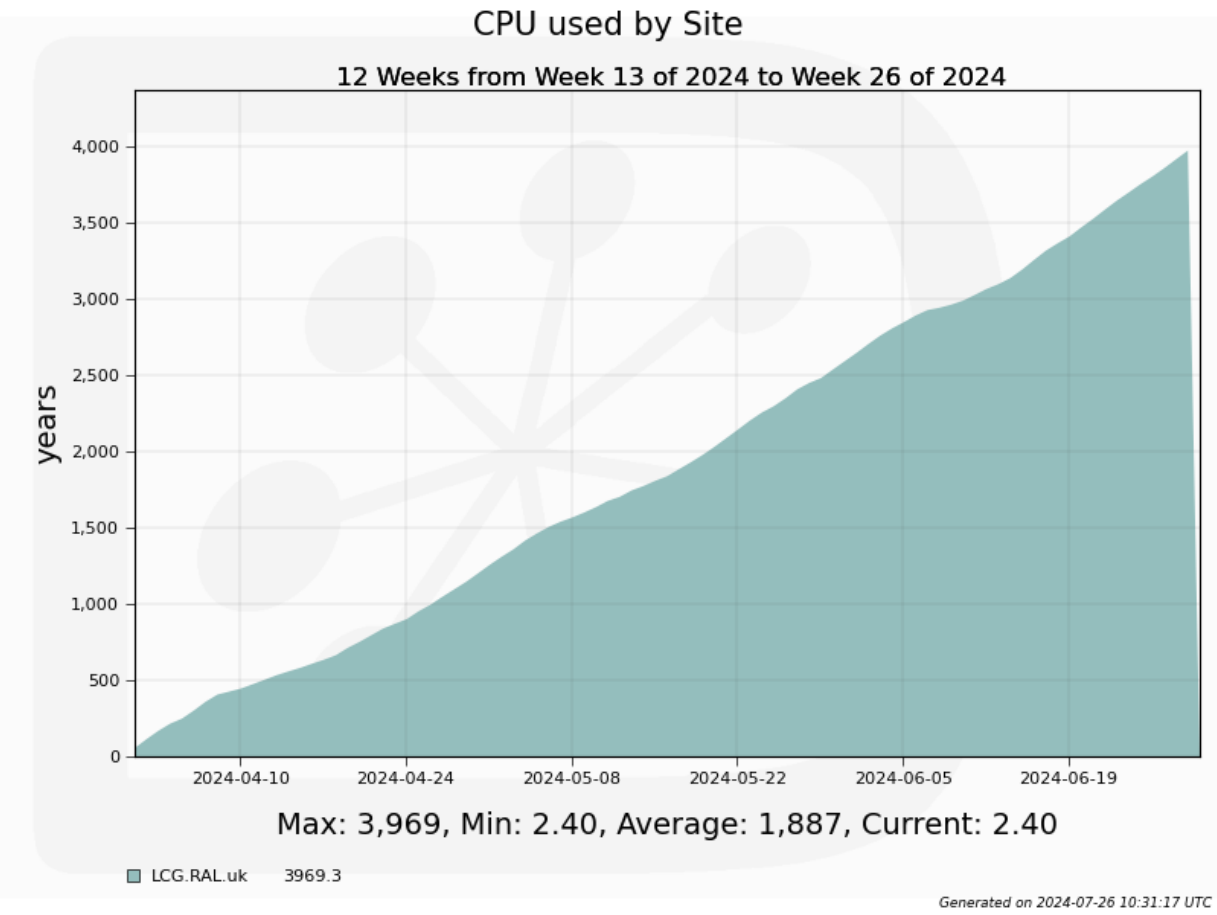
Resource Review Meeting (2024 Q2)

Highlights

- New set of LHCb ETF tests is now used in prod
  - Finally, we have storage tests
- Migration to EL[89]
  - Caused ECHO issues due to xrootd crashes on paged read requests
- Minor transfer issues
  - Xrootd bug causing transfer failures to CNAF
  - Network issue between RALPP and RAL

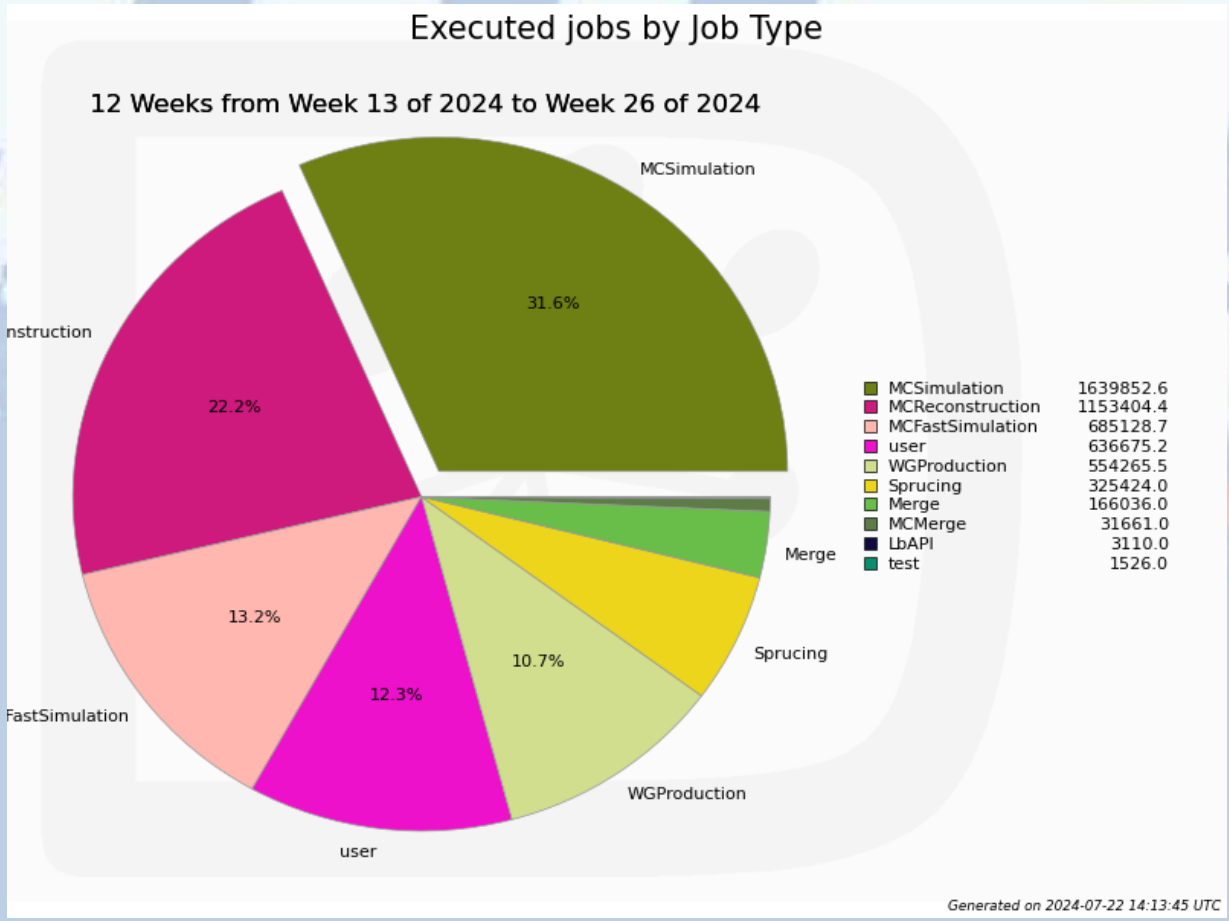
Computing resources



- Normalized values from LHCb can not be trusted
- Using raw cputime, we have: 3969*365*12.7/91 = 202179.1HS23
- Pledge is 180 (140)kHS23 < 202kHS23

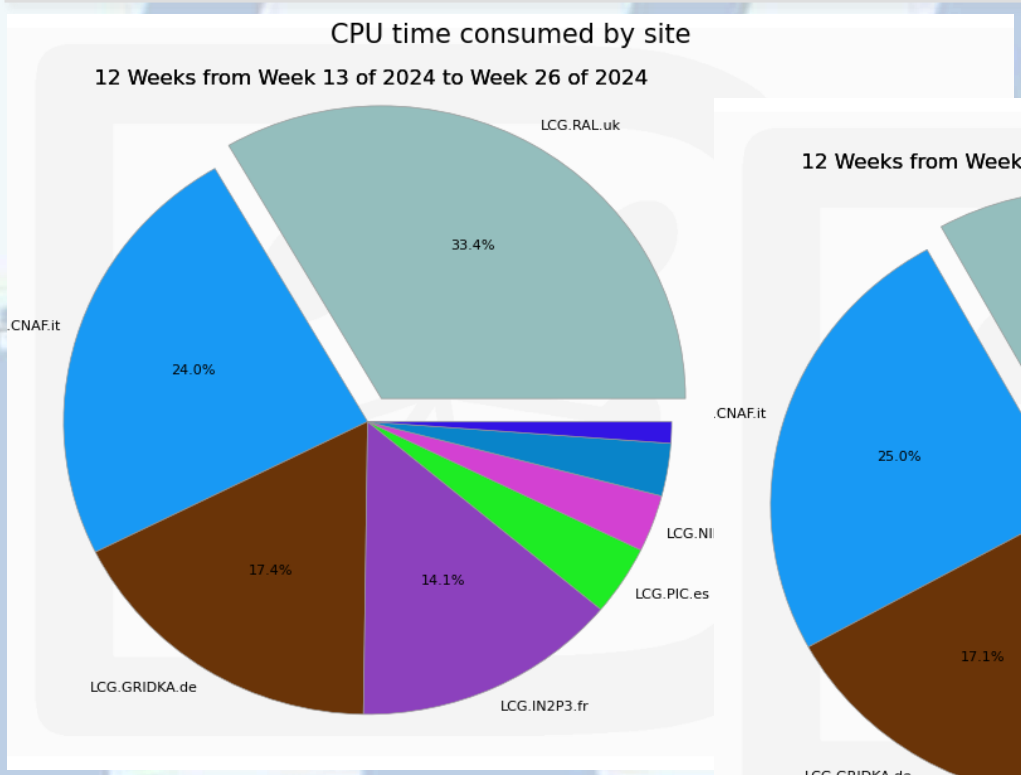
Computing resources

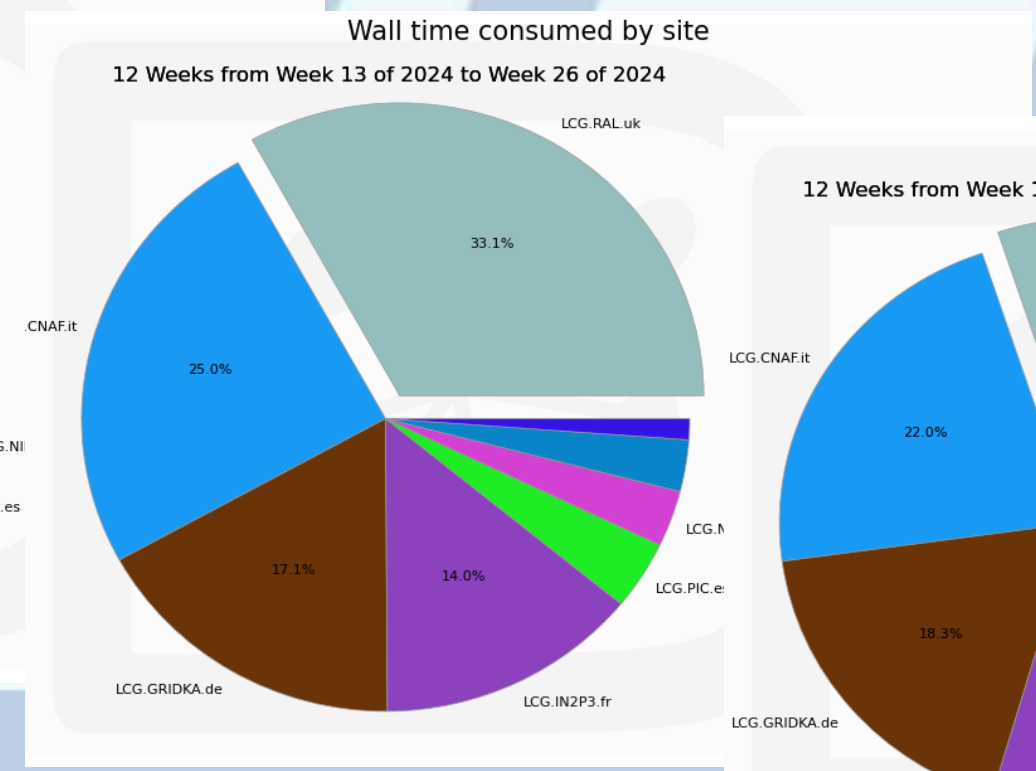
LHCb was running Mostly MC jobs, with increased presence of Data Processing as well

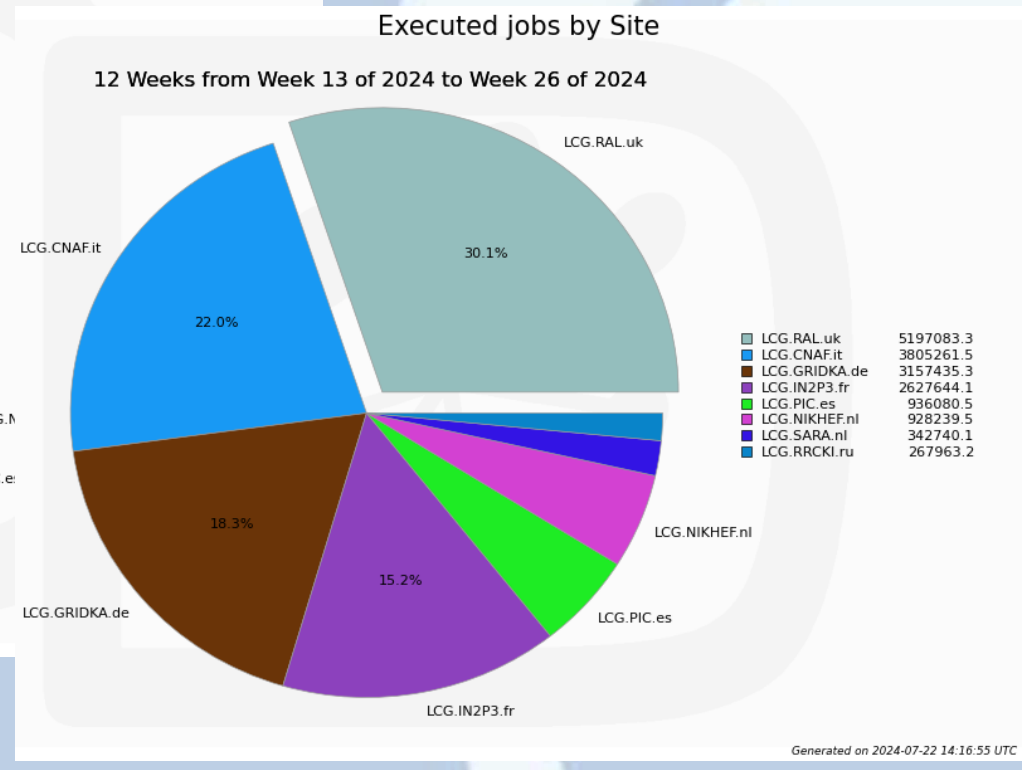


Comparison

RAL provided the most computing resources for LHCb among T1s (both in terms of Time [CPU/wall] and Number of Jobs), around 1/3 of all T1 contributions

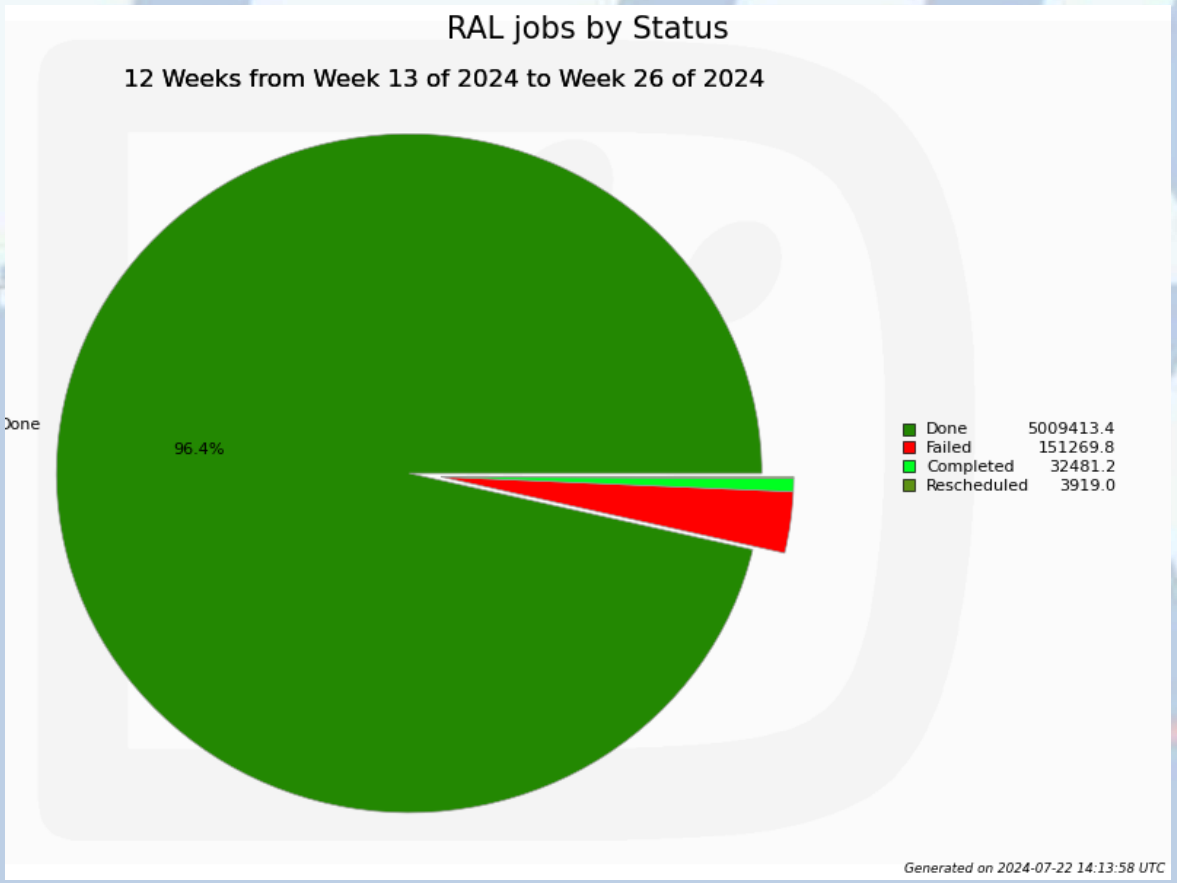


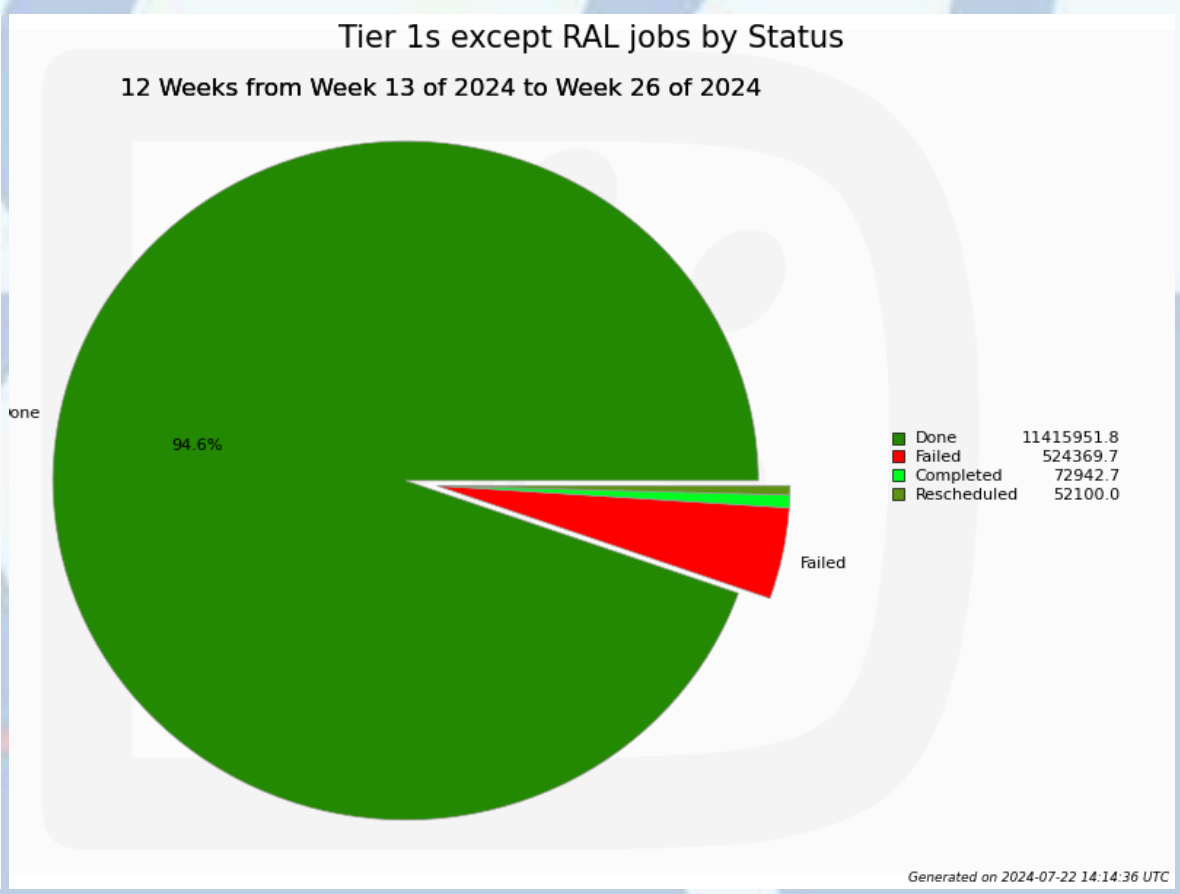




Comparison

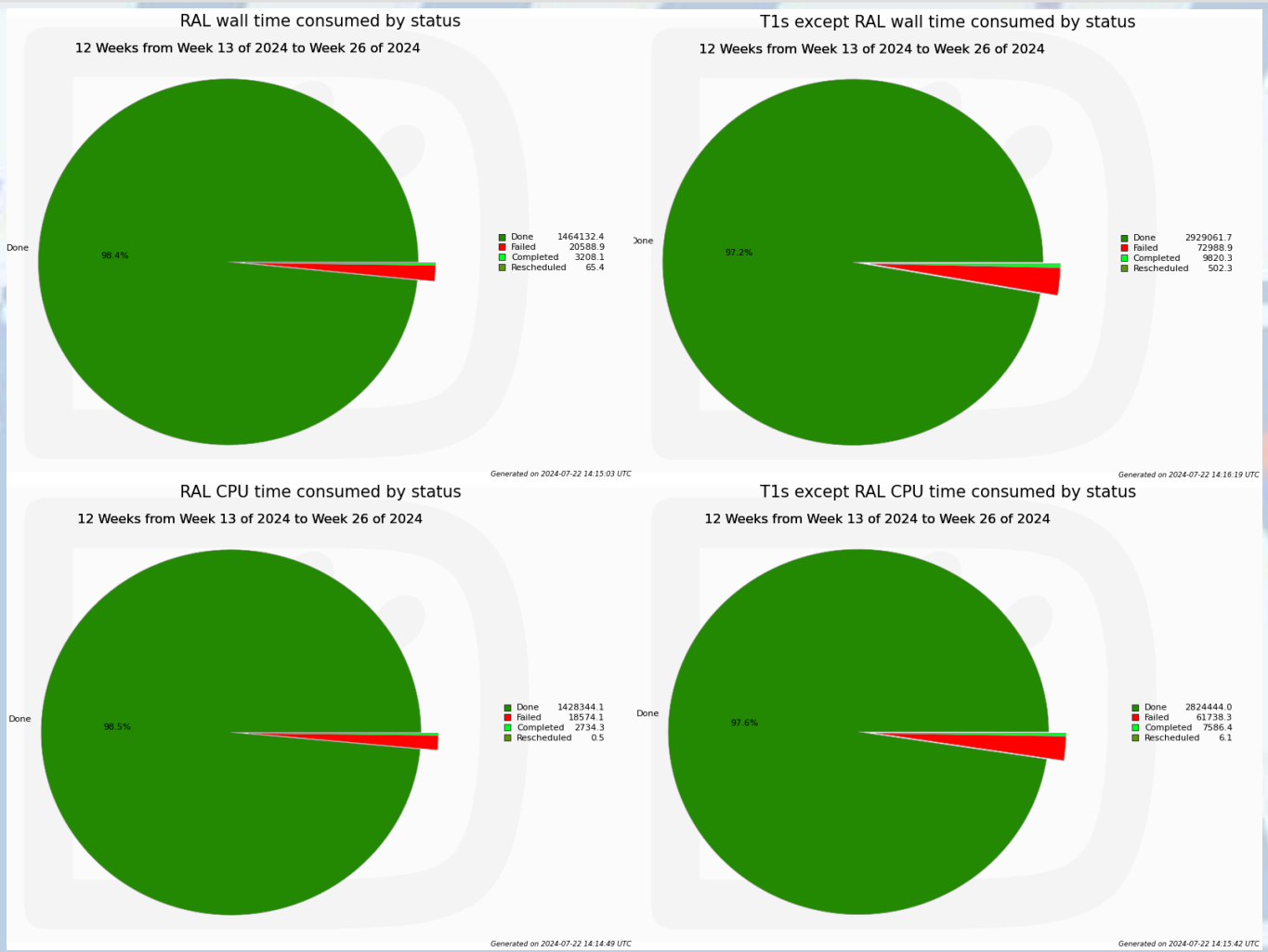
- RAL Job failure rate is less than the one from other T1s





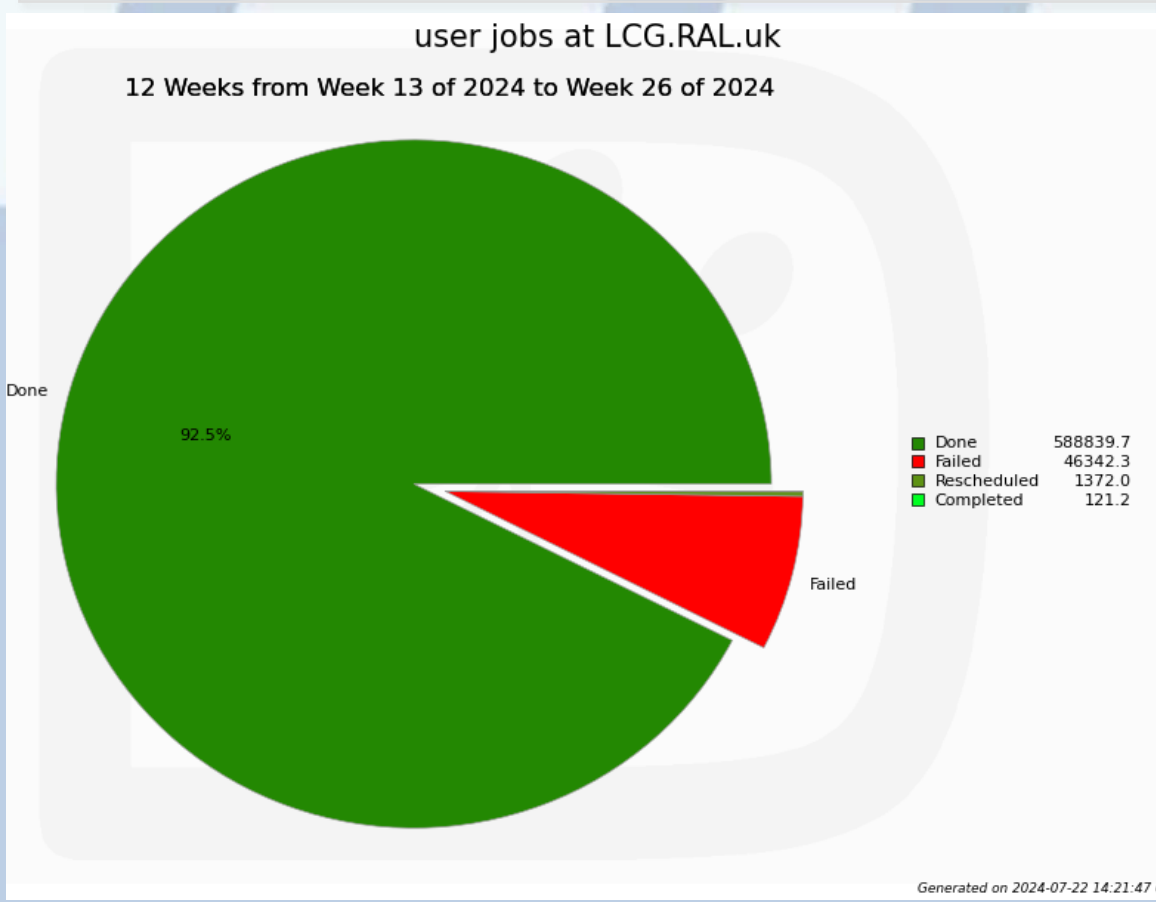
Comparison

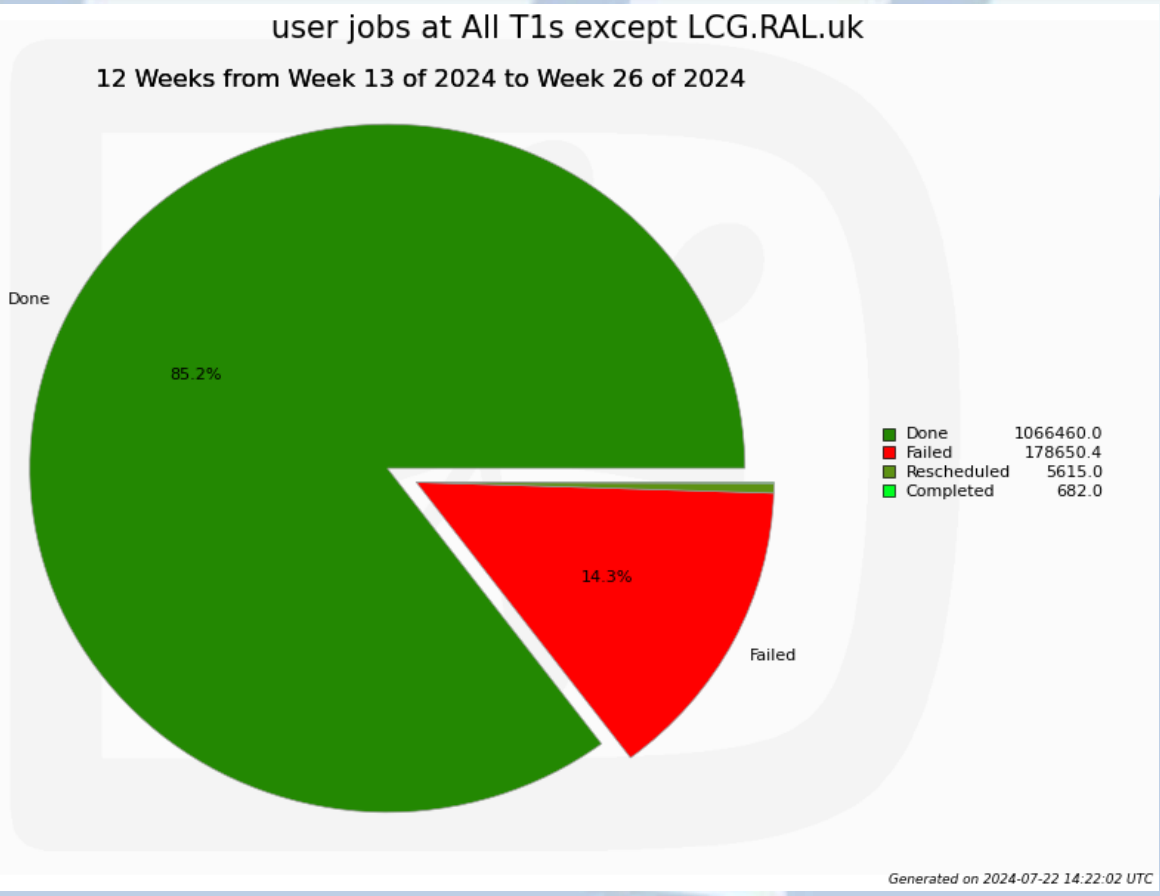
The same is true for “wasted” CPU Time/walltime



Comparison (User Jobs)

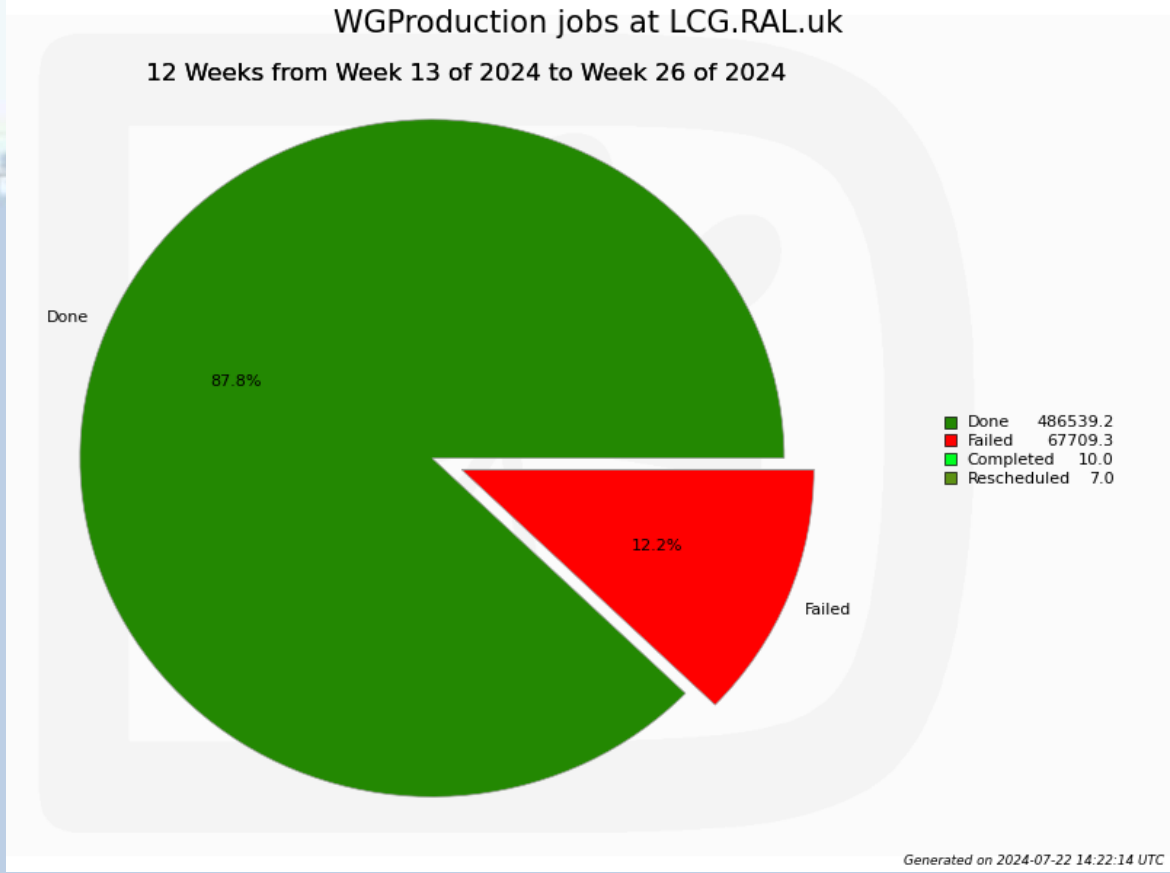
- Among all job types, user jobs have one of the highest failure rates
- For RAL it is lower than for the other T1s

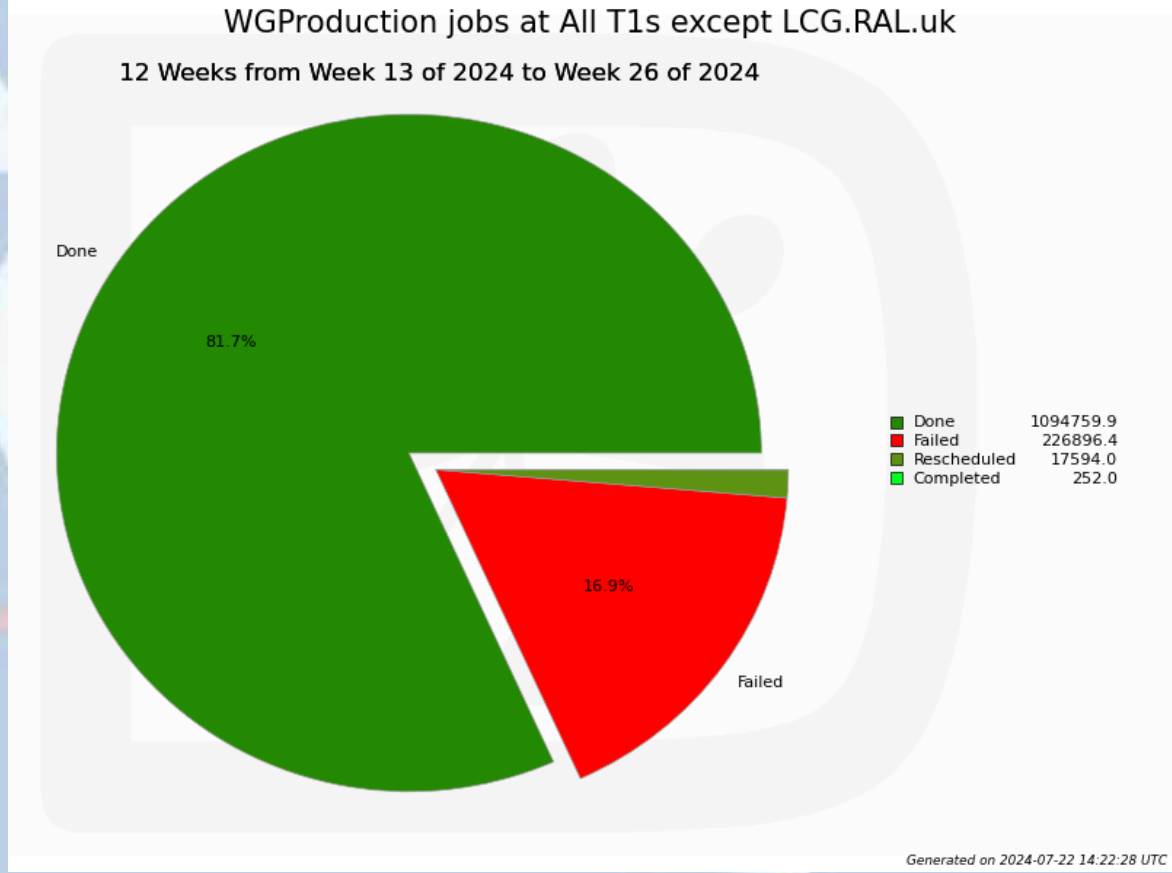




Comparison (WG Prod)

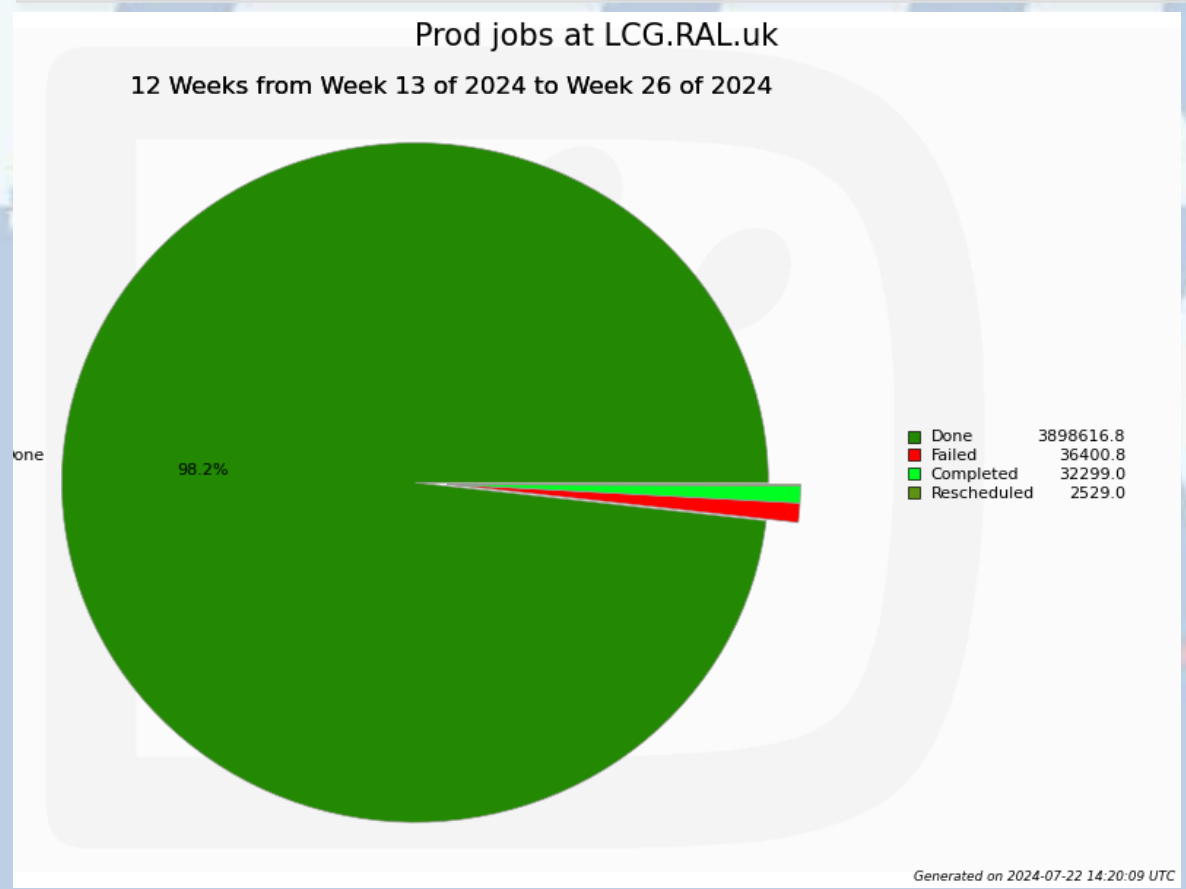
- Same is true for WG Production jobs

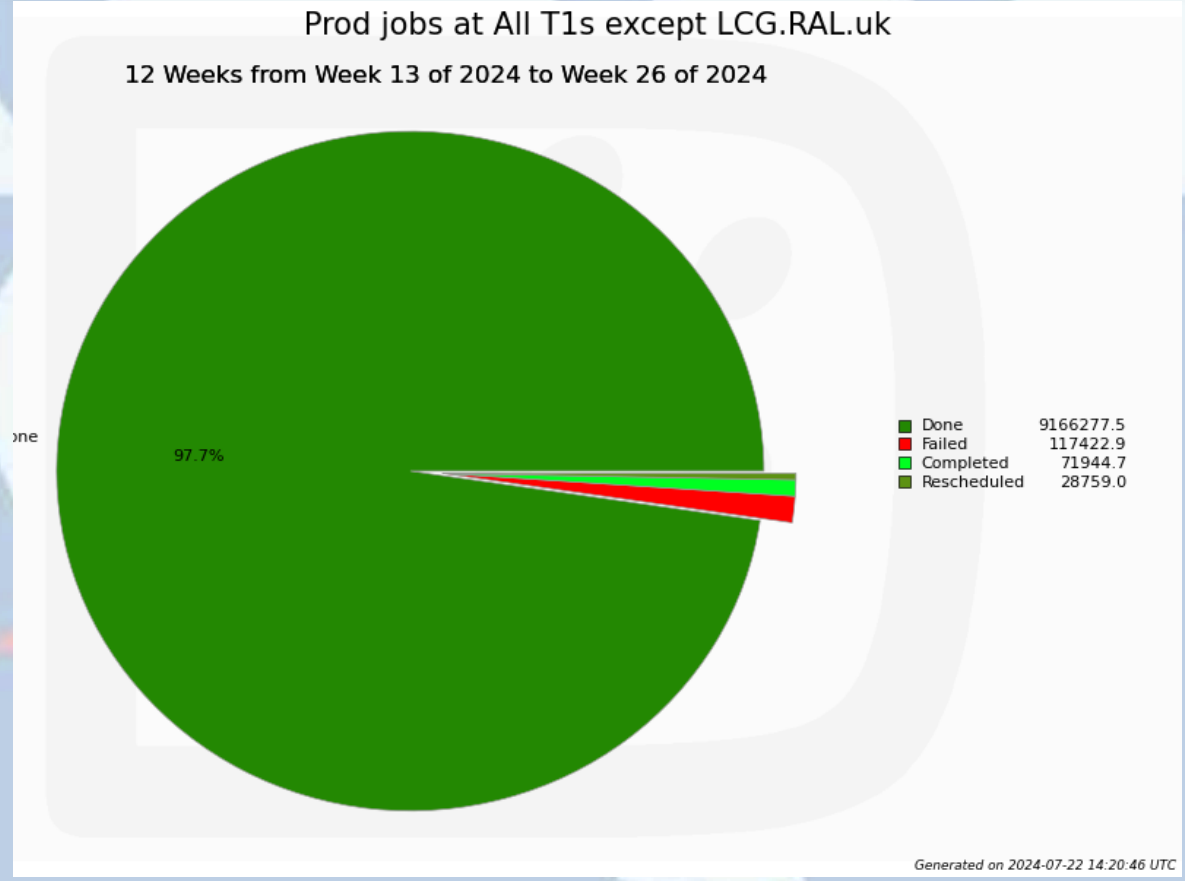




Comparison (Sim+data proc)

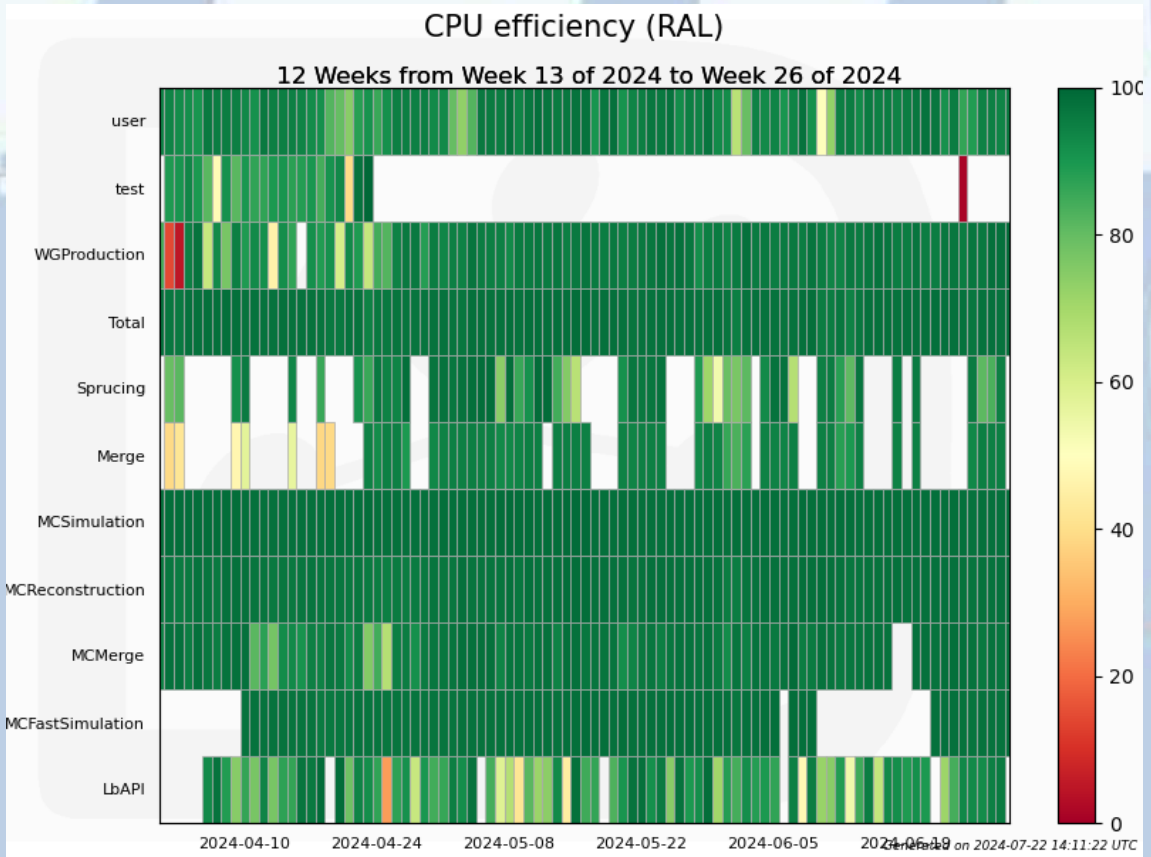
- For prod jobs failure rate is negligible

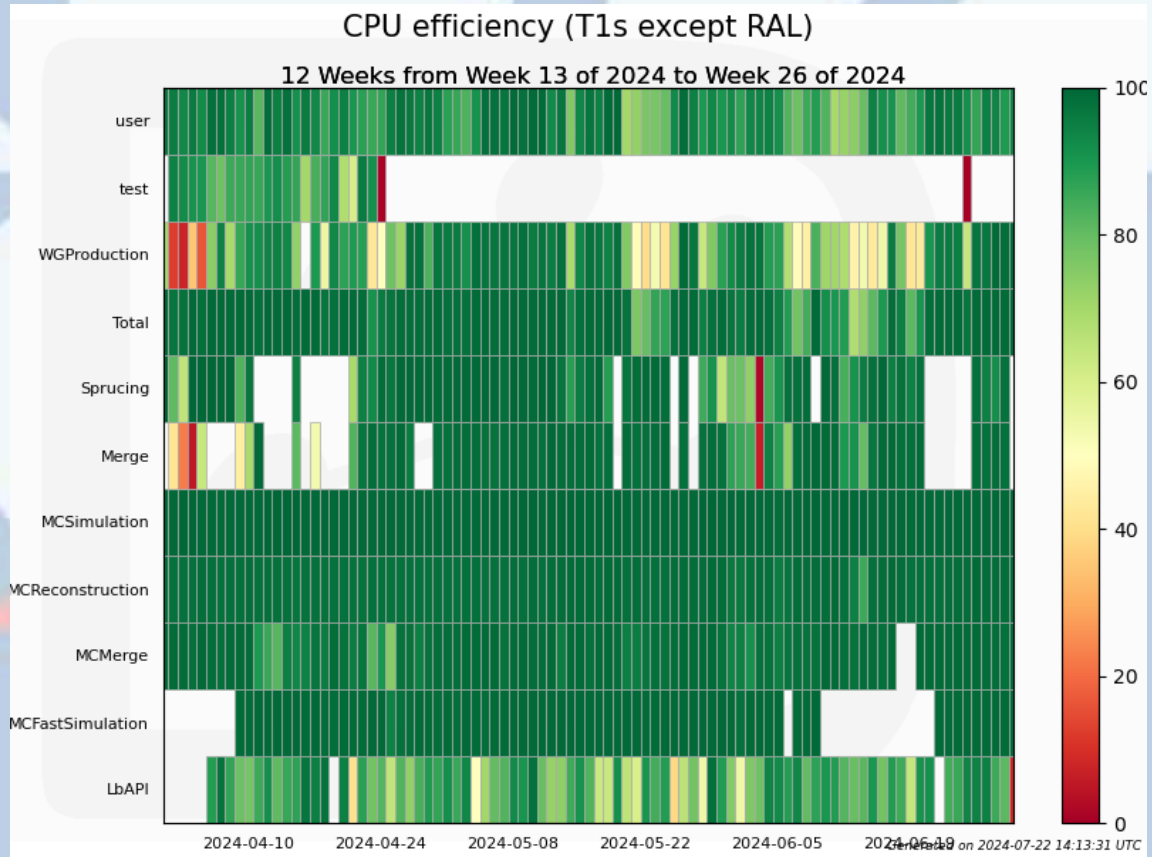




Efficiency

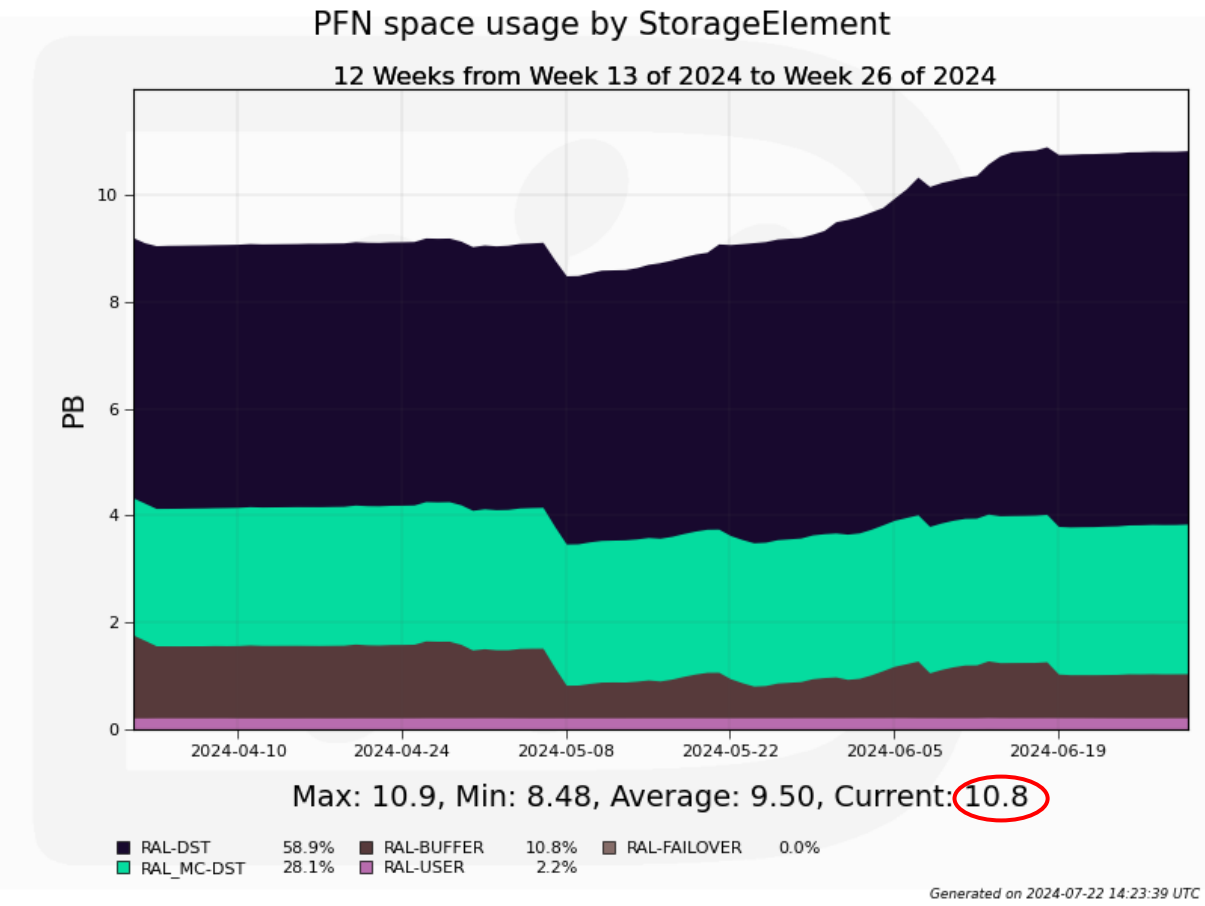
- Good efficiency for all but test jobs





Disk Usage

- Increased usage due to Data Taking
- Discrepancy with CRIC, but the other way around..
  - CRIC's value < DIRAC's value
  - Does CRIC reports one TB as a Billion of KiB?



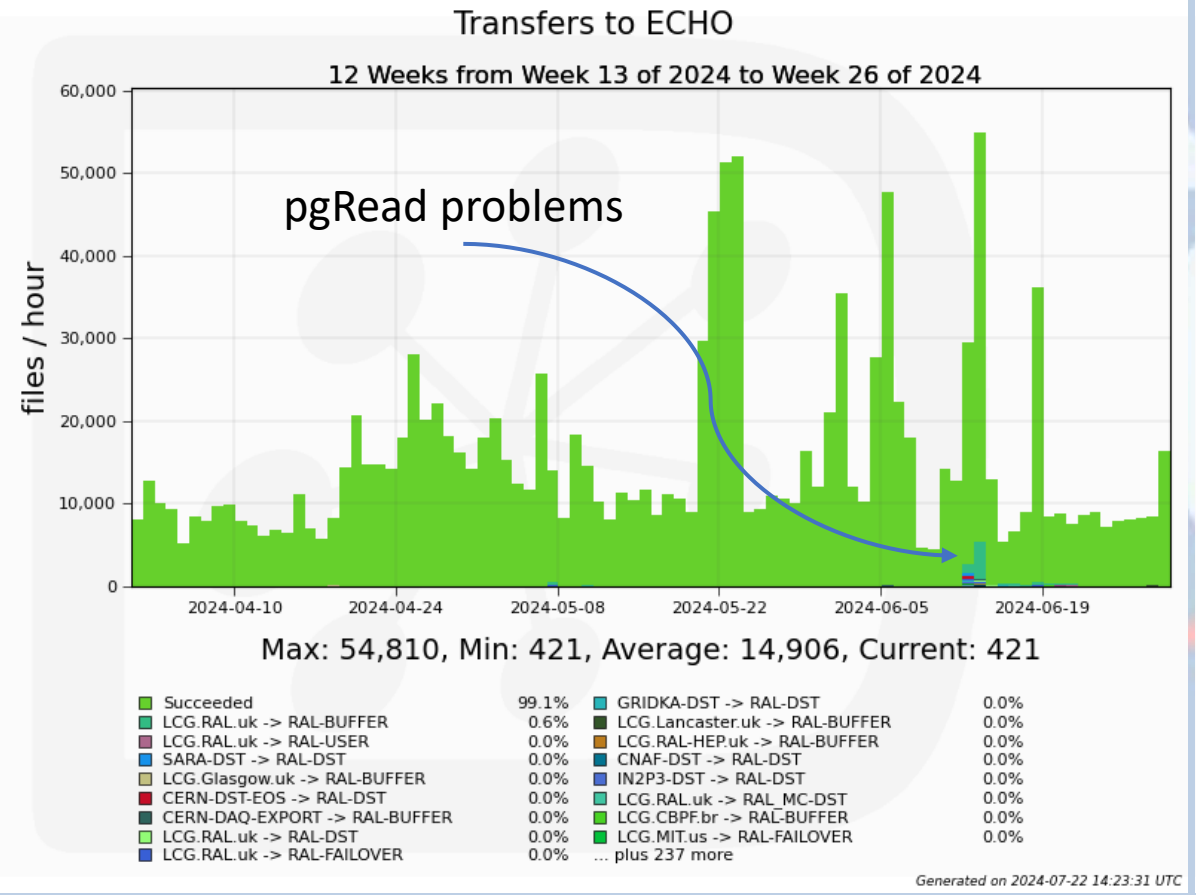
Disk Space - TBytes

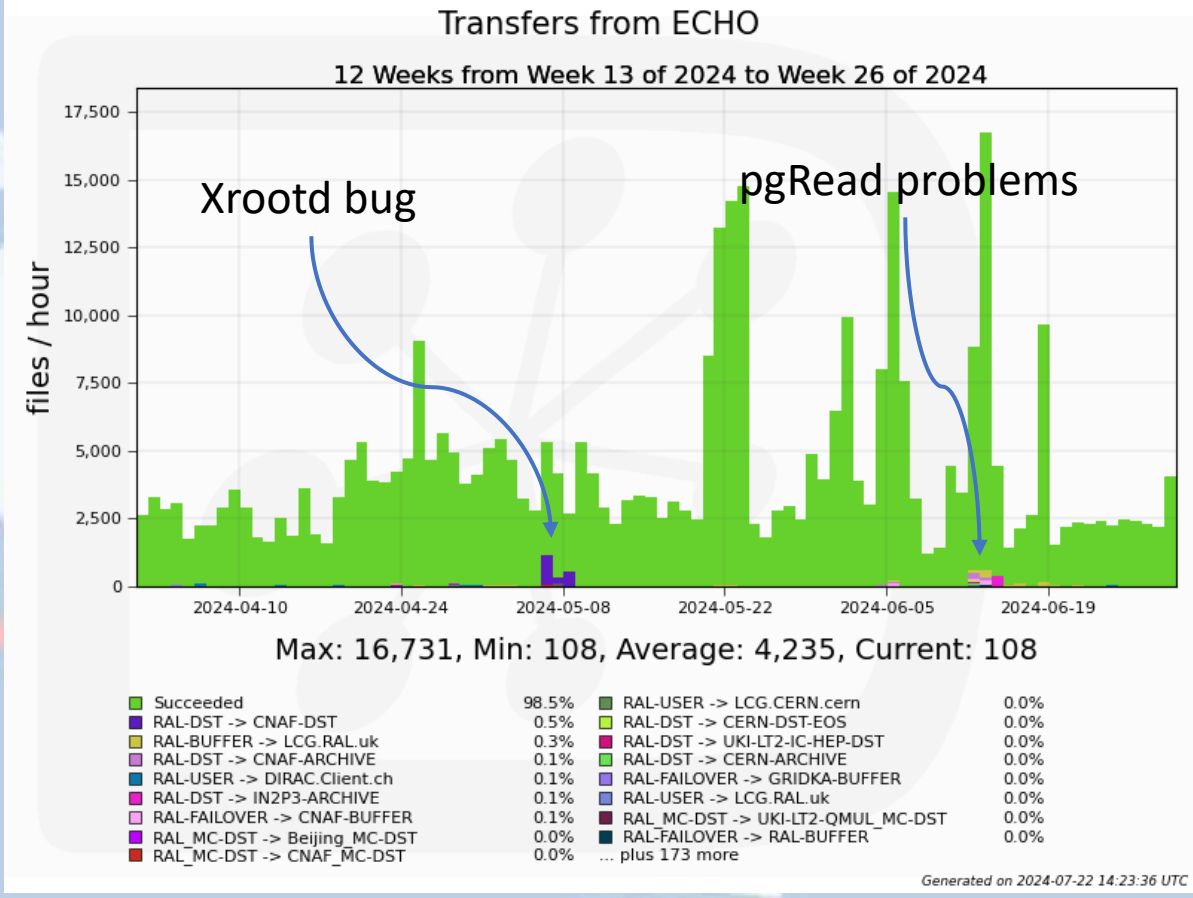
Search:

Disk Space - TBytes	Apr 2024	May 2024	Jun 2024	Total	% MoU
LHCB allocated	15,720	15,720	15,720	47,160	
LHCB used	9,169	8,950	10,498	28,617	
Total allocated	**15,720**	**15,720**	**15,720**	**47,160**	**100%**
Total used	**9,169**	**8,950**	**10,498**	**28,617**	**61%**
installed capacity	0	0	0	0	
MoU pledge	15,724	15,724	15,724	47,172	

Disk transfers

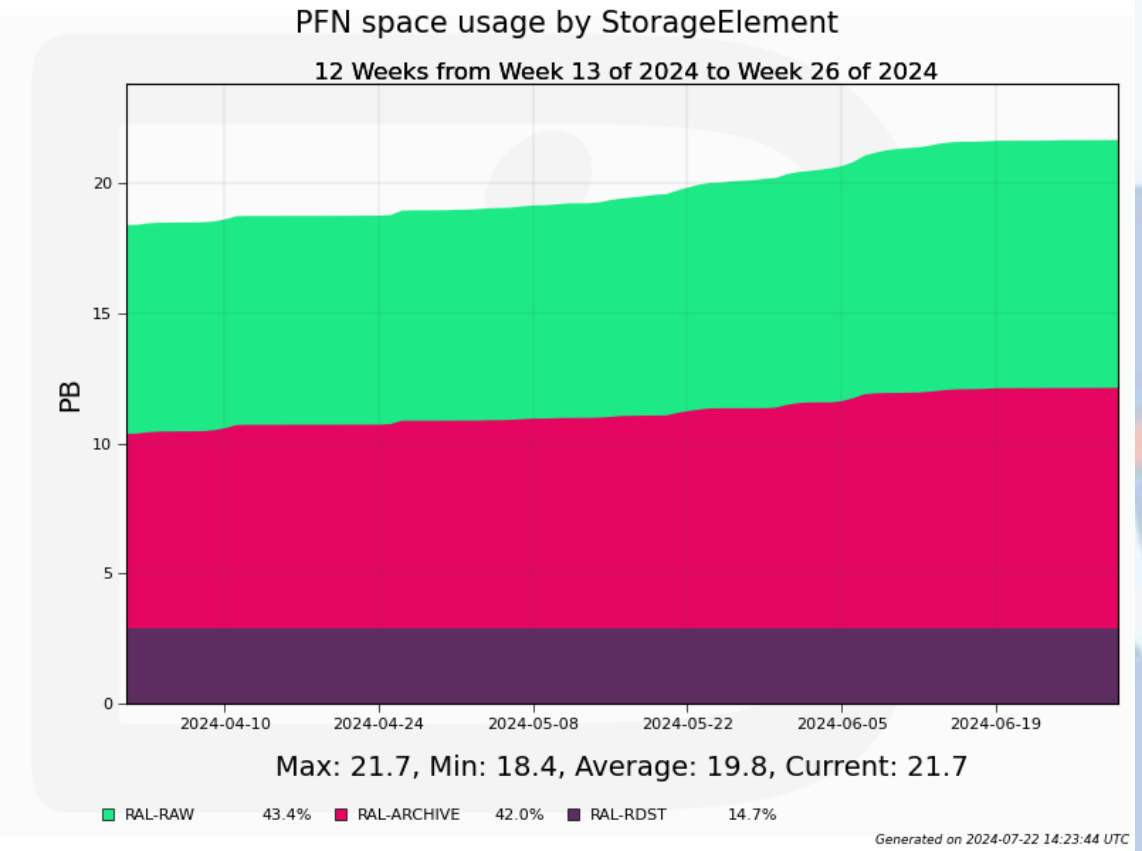
- Good transfer efficiency, with with some known issues
  - Auth issue on RAL->CNAF channel due to xrootd bug





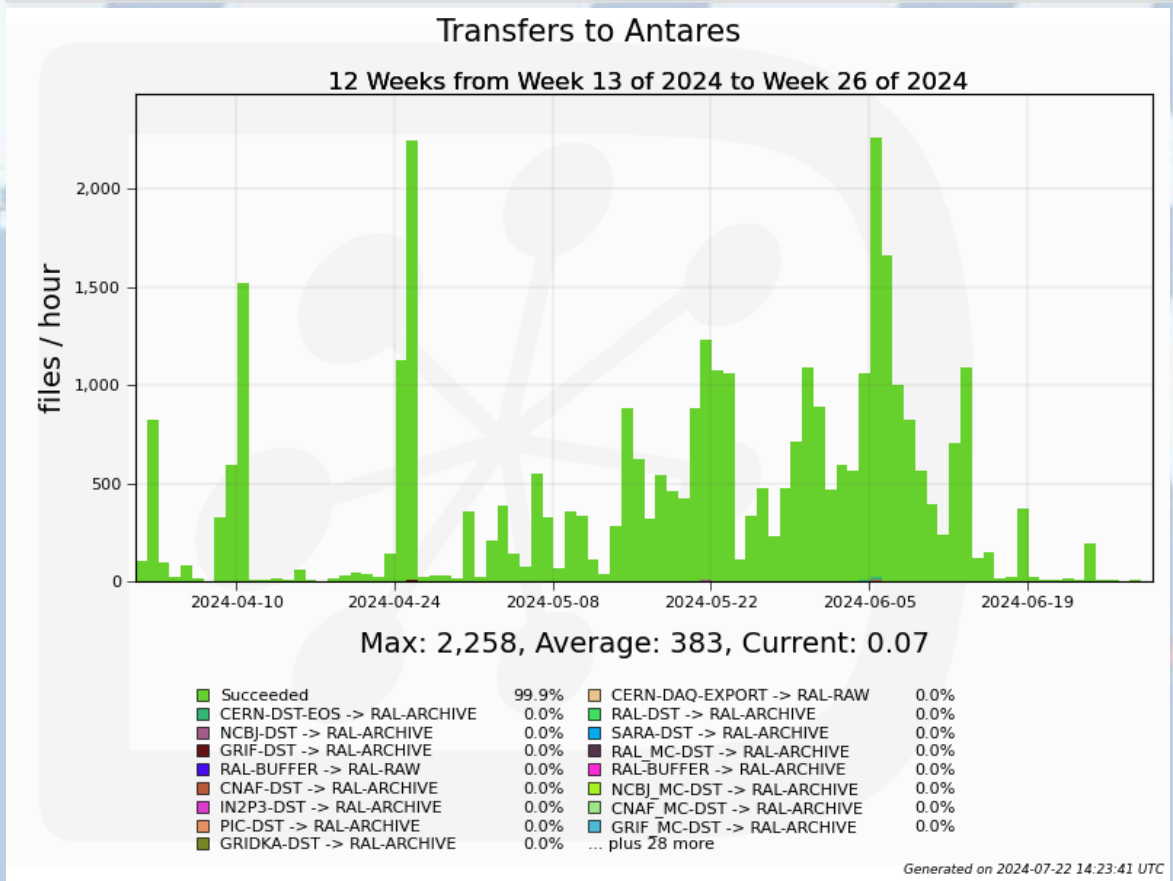
Tape usage

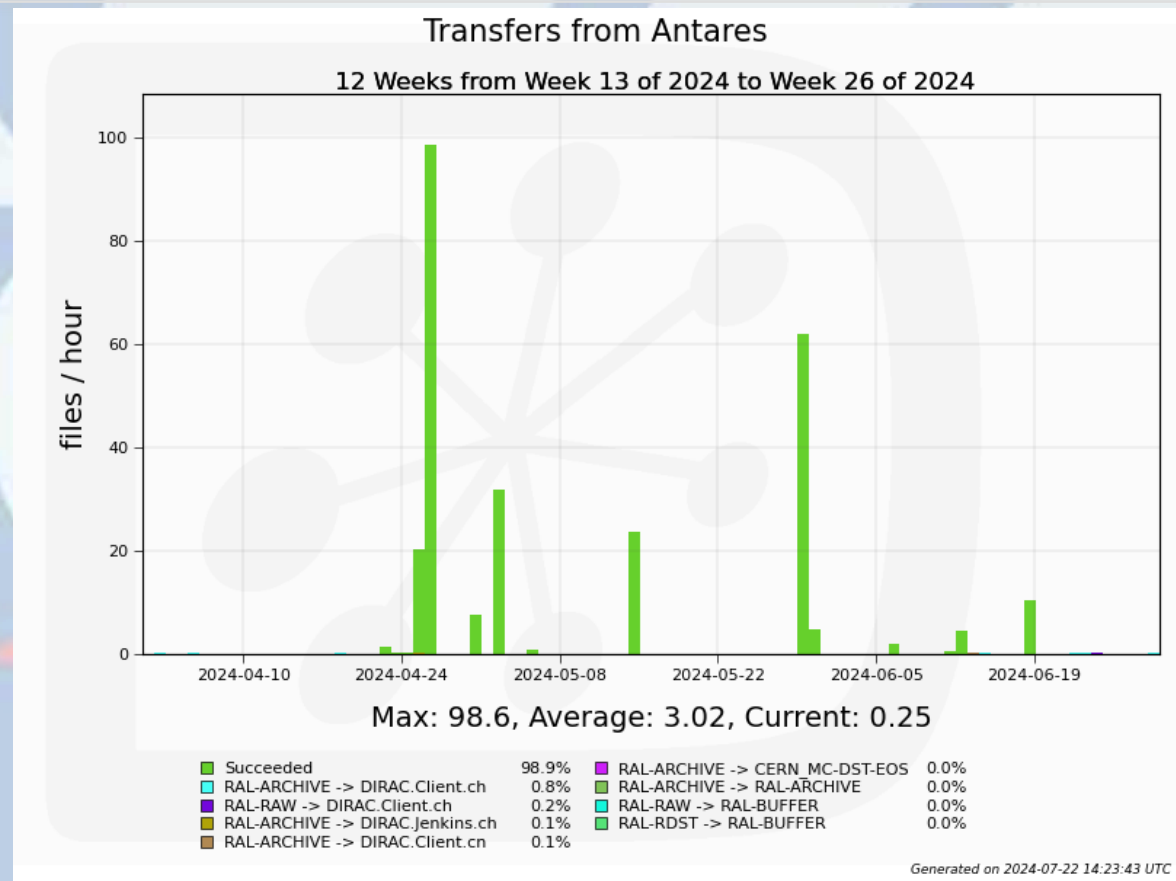
- Usage increased by more than 3PB
  - Due to Data Taking



Tape transfers

- Good transfer efficiency
- Almost no tape recalls (expected)





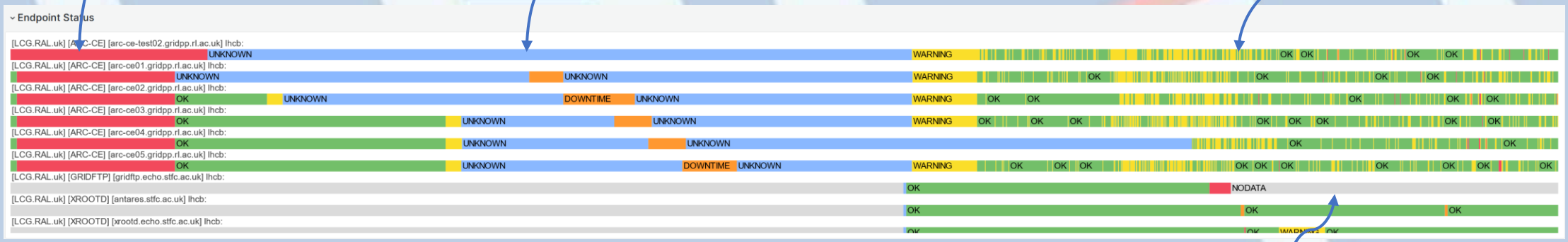
ETF tests

- We have storage tests now (finally!)
  - They were added to the new set of tests
- There were some issues during the migration to this new set of tests, some remained afterwards

Proxy expiration

Python interpreter issue

Lack of openssl in EL7 containers



Storage tests appeared

Gridftp Decommissioned

Summary

- Good performance during the second quarter of 2024
- Issues addressed in a timely manner