ALICE-USA Operations
Monthly Status for June 2024

July 23, 2024

ALICE-USA
COMPUTING
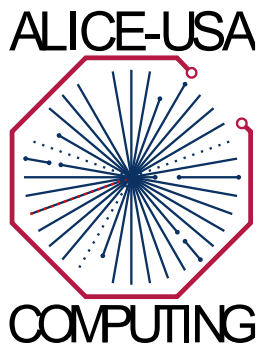
Availability and Reliability Reports
ALICE_CE(Jobs Running) x ALICE_VOBOX x AliEn::SE(tests)

Tier-2 Availability and Reliability Report
ALICE

June 2024

Federation Details

Availability Algorithm: @ALICE_CE * @ALICE_VOBOX * all AliEn-SE

Color coding: N/A | <30% | <60% | <90% | >=90%

Federation & Sites	Pledge CPU	Pledge Disk	Availability	Reliability	Unknown	Mar-2024	Apr-2024	May-2024
US-LBNL-ALICE	100900	10900						
LBL_HPCS			100%	100%	0%	100%	95%	92%
ORNL			89%	89%	0%	99%	92%	98%

Availability History

Job Summary

- ## Total number of jobs
  - Simulation load went down again after some period of increased running
  - Perlmutter load is a good indication of MC jobs, as we only run MC on it

- ## CEs
  - LBL-HPCS
    - Rocky8 update came with some problems
    - Needed to be rebuilt with the latest kernel otherwise root.exe process was hanging and draining the node
  - ORNL - **OK**
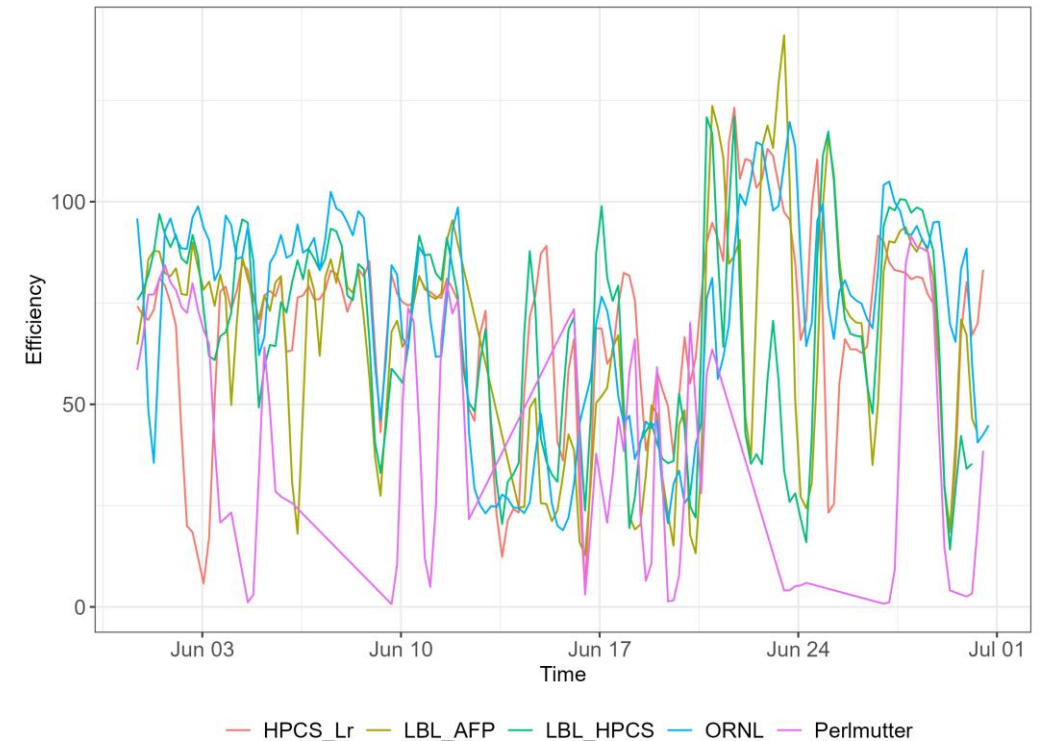 - Lawrencium - **OK**
  - Perlmutter - **OK**
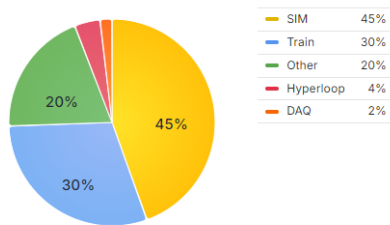 - LBL_AFP - **OK**
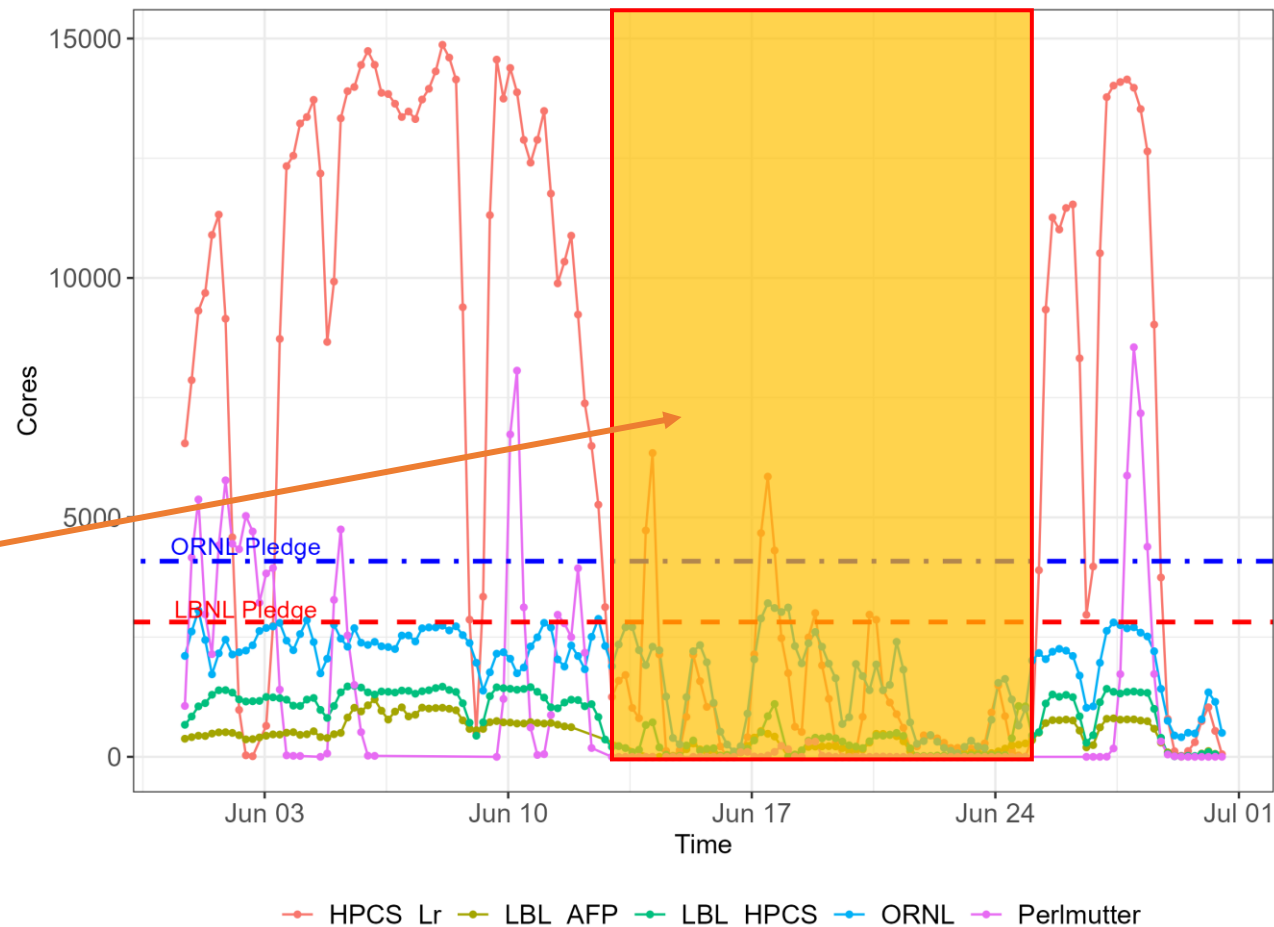
CPU Efficiency
Target Efficiency is… no such thing anymore…
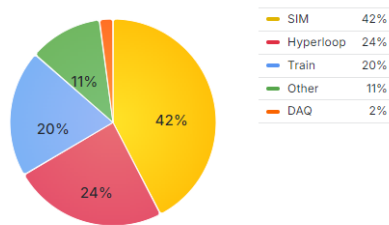

Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	84.91	0	69.03	201.8
2.	LBL_AFP	43.76	0	65.56	207
3.	LBL_HPCS	36.41	0.024	66.46	204.5
4.	NIHAM	76.74	7.056	63.69	205.9
5.	ORNL	41.55	1.84	71.1	149.8
6.	Perlmutter	39.73	0.013	40.78	201.6
7.	UPB	84.01	6.199	75.76	200.5
	Total	58.16		64.62	
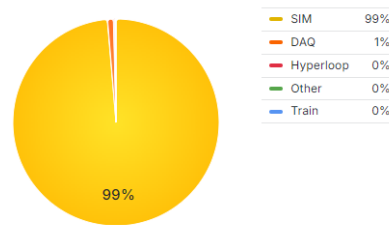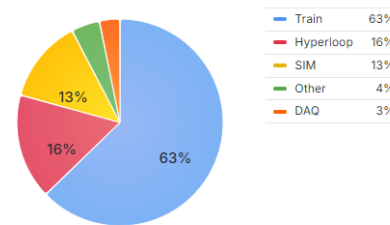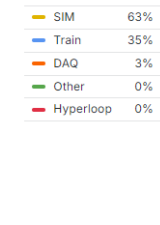
CPU Obligations	kHS06
ALICE-USA	100.9
LBNL HPCS T2	50.45
ORNL T2	50.45

T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	4151.50	7530.00	38.36
LBNL	490.10		
ORNL	1321.95	2200.00	39.91
Total	**5,963.55**	**9,730.00**	**38.71**
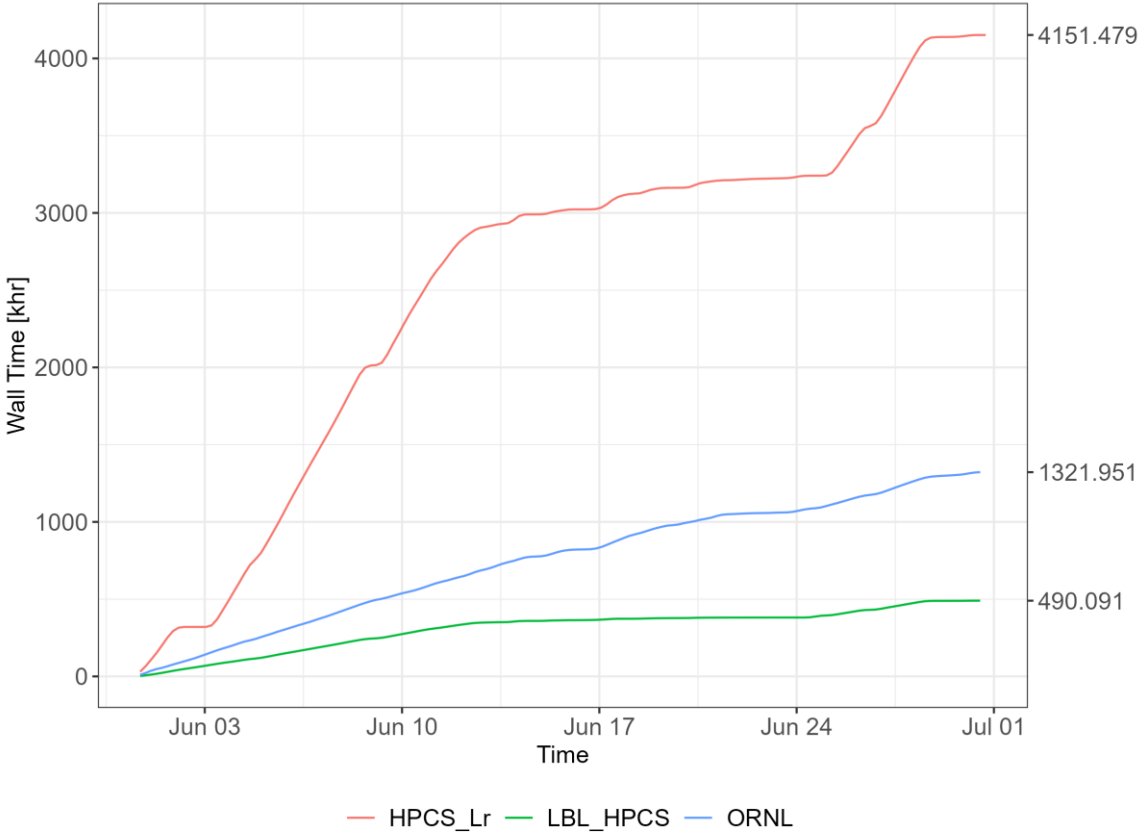
| T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS06 x hr] (ML reporter)	CPU Delivered [MHS06 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	12.0	36.32	49.82	90.36	137.1	248.8
LBNL	16.7		8.18		22.5	
ORNL	11.5	36.32	15.20	25.30	41.9	69.7
Total		**72.65**	**73.21**	**115.66**	**100.77%**	**159.21%**

Network Traffic at LBL and ORNL
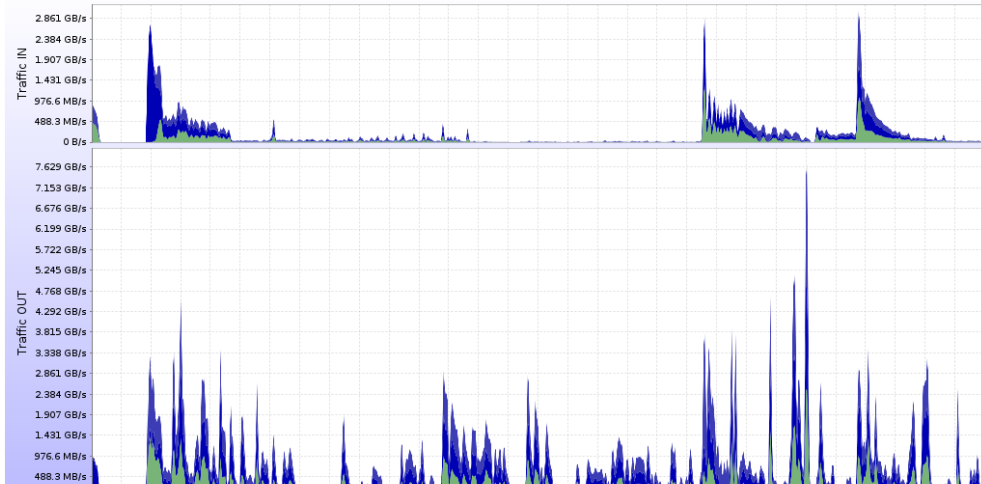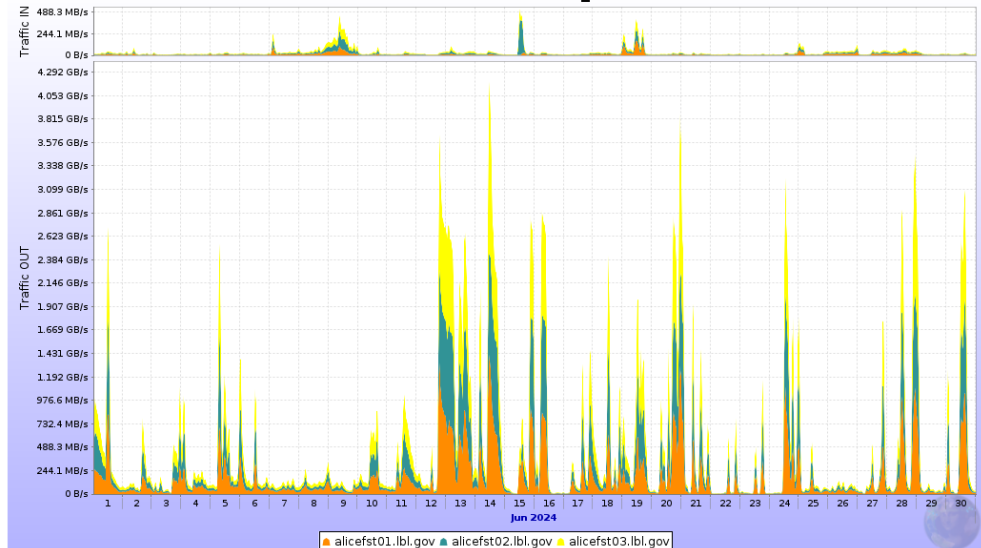
aliceafst not reporting under the LBL_HPCS::AF_EOS
Some configuration needs to be pointing to this instance?

AliEn SEs availability for writing

Color map: ■ 0 → 80% ■ 80 → 90% ■ 90 → 95% ■ 95 → 98% ■ 98 → 100% ■ 100%
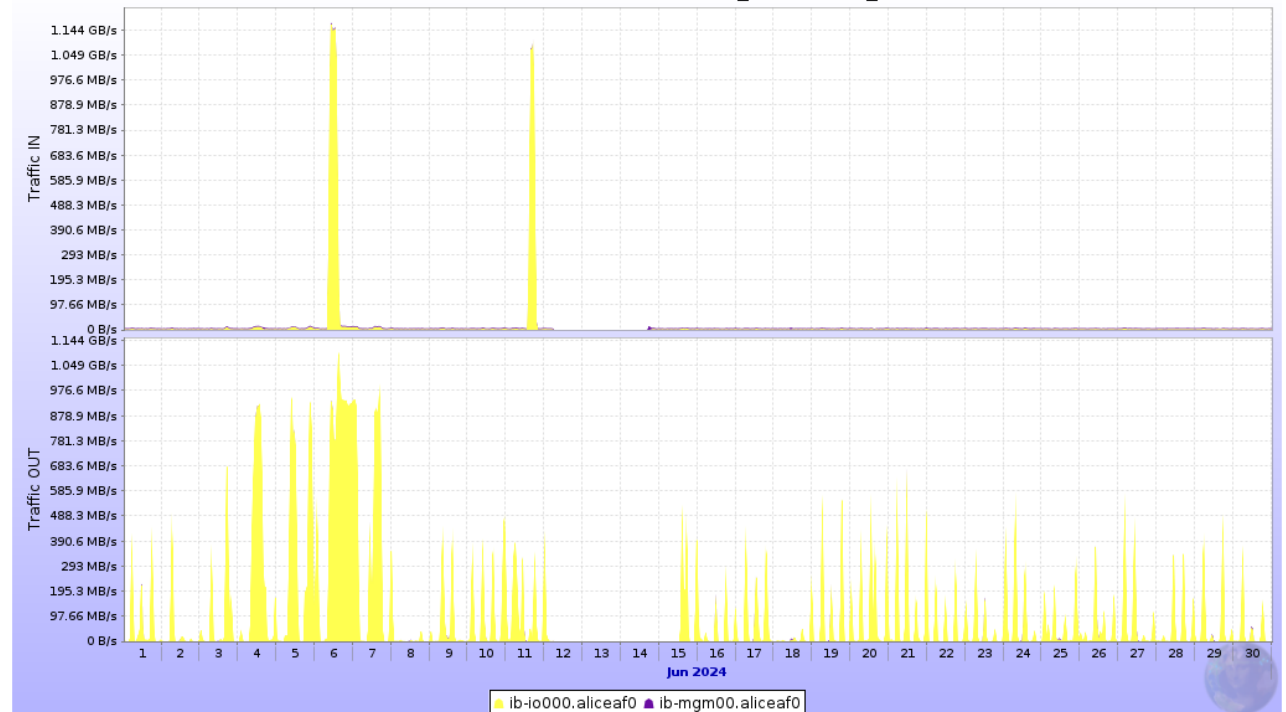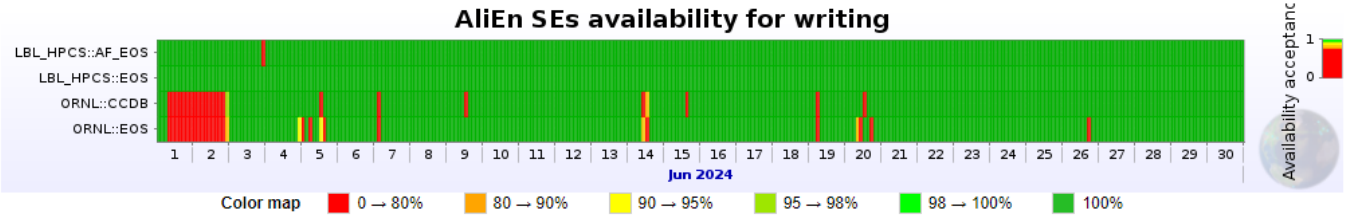
Statistics

Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	31 May 2024 23:55	30 Jun 2024 23:56	727	1	99.86%	99.88%
LBL_HPCS::EOS	01 Jun 2024 00:05	01 Jul 2024 00:05	722	0	100%	100%
ORNL::CCDB	31 May 2024 23:52	30 Jun 2024 23:53	684	45	93.83%	93.84%
ORNL::EOS	01 Jun 2024 00:05	01 Jul 2024 00:06	675	47	93.49%	93.54%

AliEn SEs availability for reading

Color map: ■ 0 → 80% ■ 80 → 90% ■ 90 → 95% ■ 95 → 98% ■ 98 → 100% ■ 100%
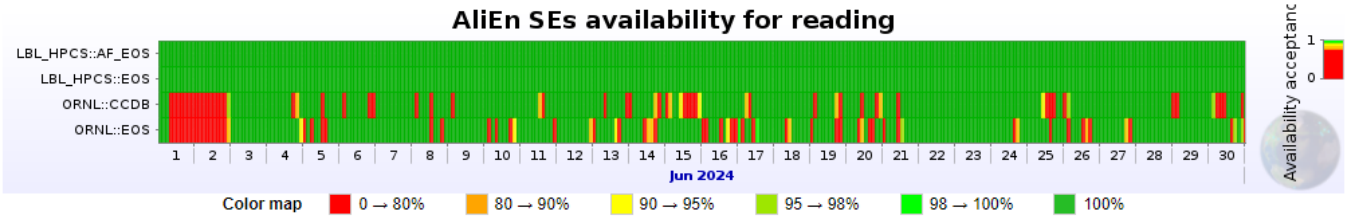
Statistics

Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	31 May 2024 23:55	30 Jun 2024 23:56	728	0	100%	100%
LBL_HPCS::EOS	01 Jun 2024 00:05	01 Jul 2024 00:06	722	0	100%	100%
ORNL::CCDB	31 May 2024 23:52	30 Jun 2024 23:54	657	72	90.12%	90.07%
ORNL::EOS	01 Jun 2024 00:05	01 Jul 2024 00:06	643	79	89.06%	89.25%

	AliEn SE		Catalogue statistics						Storage-provid
SE Name	AliEn name	Tier	Size	Used	Free	Usage	No. of files	Type	Size	Used	Free	Usage
1. LBL_HPCS - AF_EOS	ALICE::LBL_HPCS::AF_EOS	2	1.101 PB	19.2 TB	1.082 PB	1.703%	14,447	FILE	1.092 PB	32.07 TB	1.061 PB	2.867%
2. LBL_HPCS - EOS	ALICE::LBL_HPCS::EOS	2	3.48 PB	3.085 PB	403.8 TB	88.67%	69,195,788	FILE	3.48 PB	3.164 PB	322.8 TB	90.94%
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	4.645 TB	95.36 TB	4.645%	11,605,866	FILE	-	-	-	-
4. ORNL - EOS	ALICE::ORNL::EOS	2	3.964 PB	2.816 PB	1.148 PB	71.04%	58,692,891	FILE	3.964 PB	2.977 PB	1011 TB	75.09%
5. ORNL - PRF_EOS	ALICE::ORNL::PRF_EOS	2	807.7 TB	243 TB	564.7 TB	30.09%	120,226	FILE	807.7 TB	248.7 TB	559 TB	30.79%
Total			**9.431 PB**	**6.162 PB**	**3.269 PB**		**139,629,218**		**9.325 PB**	**6.415 PB**	**2.91 PB**	

EOS: Success Ratio

- Fille corruption needs attention
- We need to rerun FSCK for both sites and generate lists for Costin to tend to
- The problem at ORNL is severe

Success ratio

Color map	0% → 80%	80% → 90%	90% → 95%	95% → 100%	100%
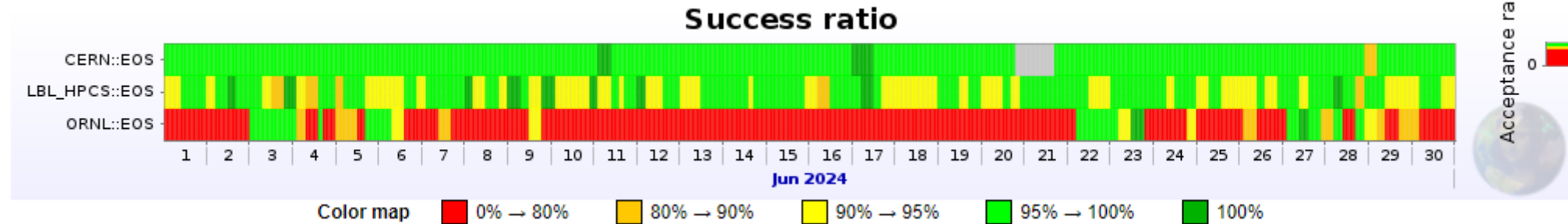
Averaged metrics for the selected interval

SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 Jun 2024 05:47	30 Jun 2024 19:15	99.41 %	0.04 %	0.51 %	0.03 %
LBL_HPCS::EOS	01 Jun 2024 05:48	30 Jun 2024 19:20	95.67 %	0.84 %	3.50 %	0.00 %
ORNL::EOS	01 Jun 2024 05:49	30 Jun 2024 19:26	61.41 %	0.10 %	38.49 %	0.00 %

Status from the File Crawler

Status codes extracted from the crawler

SE Name: [ALICE::ORNL::EOS ▾]   Interval: [Last 3 days ▾]

Status Type	Status Code	Status Count	Status Code Ratio	Download throughput
FILE_OK	S_FILE_CHECKSUM_MATCH	17238	87.03 %	32.67 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	5	0.03 %	54.10 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	2519	12.72 %	
	XROOTD_TIMED_OUT	1	0.01 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	45	0.23 %	
TOTAL		19808	100 %	

Status codes extracted from the crawler

SE Name: [ALICE::LBL_HPCS::EOS ▾]   Interval: [Last 3 days ▾]

Status Type	Status Code	Status Count	Status Code Ratio	Download throughput
FILE_OK	S_FILE_CHECKSUM_MATCH	20816	97.33 %	85.82 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	36	0.17 %	85.61 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	458	2.14 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	78	0.36 %	
TOTAL		21388	100 %	

We observed that due to some strange process corrupted filed may have been copied to ORNL
Clean-up is urgently needed

Site Status Dashboard

Last Month

This month