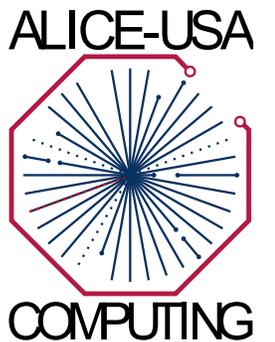


ALICE-USA Operations Monthly Status for May 2023

June 20, 2023



Availability and Reliability Reports

ALICE_CE(Jobs Running) x ALICE_VOBOX x AliEn::SE(tests)



Tier-2 Availability and Reliability Report ALICE

May 2023

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	Availability History		
						Feb-2023	Mar-2023	Apr-2023
US-LBNL-ALICE	94300	9800						
LBL_HPCS			100%	100%	0%	98%	85%	92%
ORNL			86%	86%	0%	94%	97%	100%

Job Summary

- **LBL-HPCS**

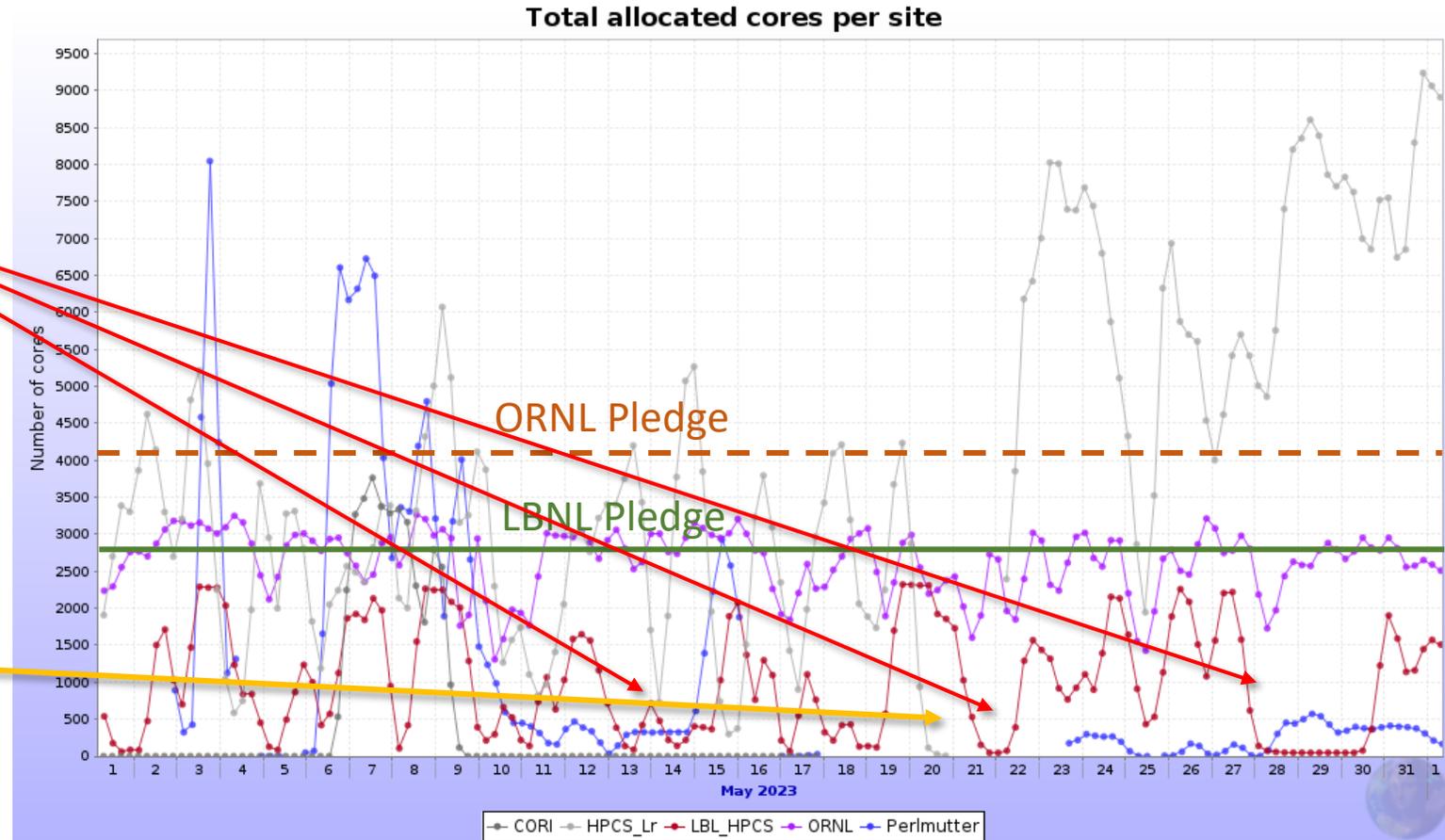
- Doing well
- SLURM blocking nodes when it cannot kill a process
- These seem to be processes that run out of TTL

- **ORNL**

- Doing well
- There was some quarkDB work but quickly solved

- **Lawrencium**

- Storage migration
- Came back very strong
- Downtime not reported
- I was not sure when exactly this was happening and how long it would last



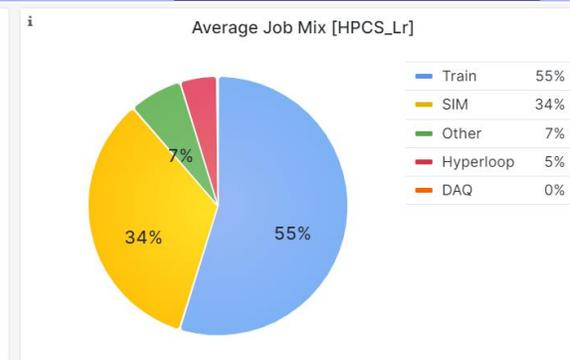
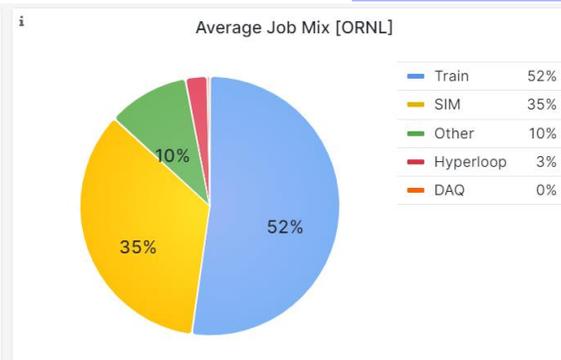
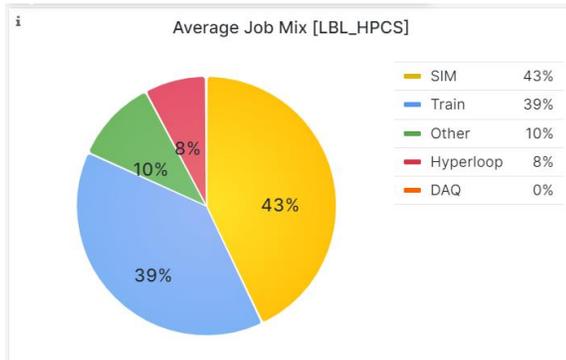
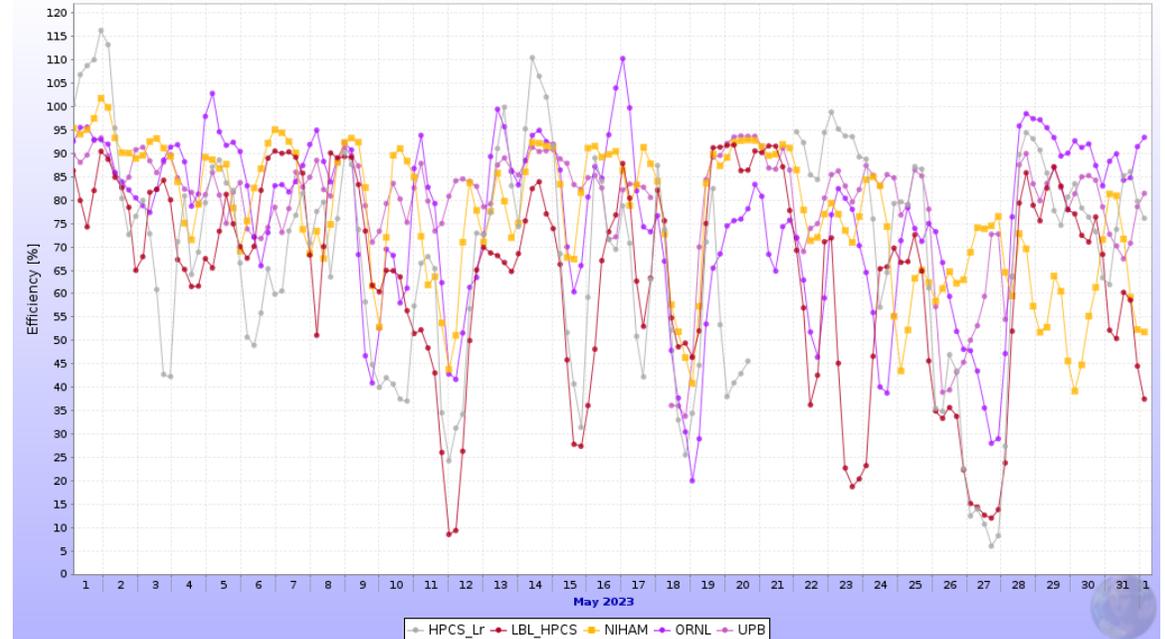
CPU Efficiency

Target Efficiency is ~80%

Jobs efficiency (cpu time / wall time)

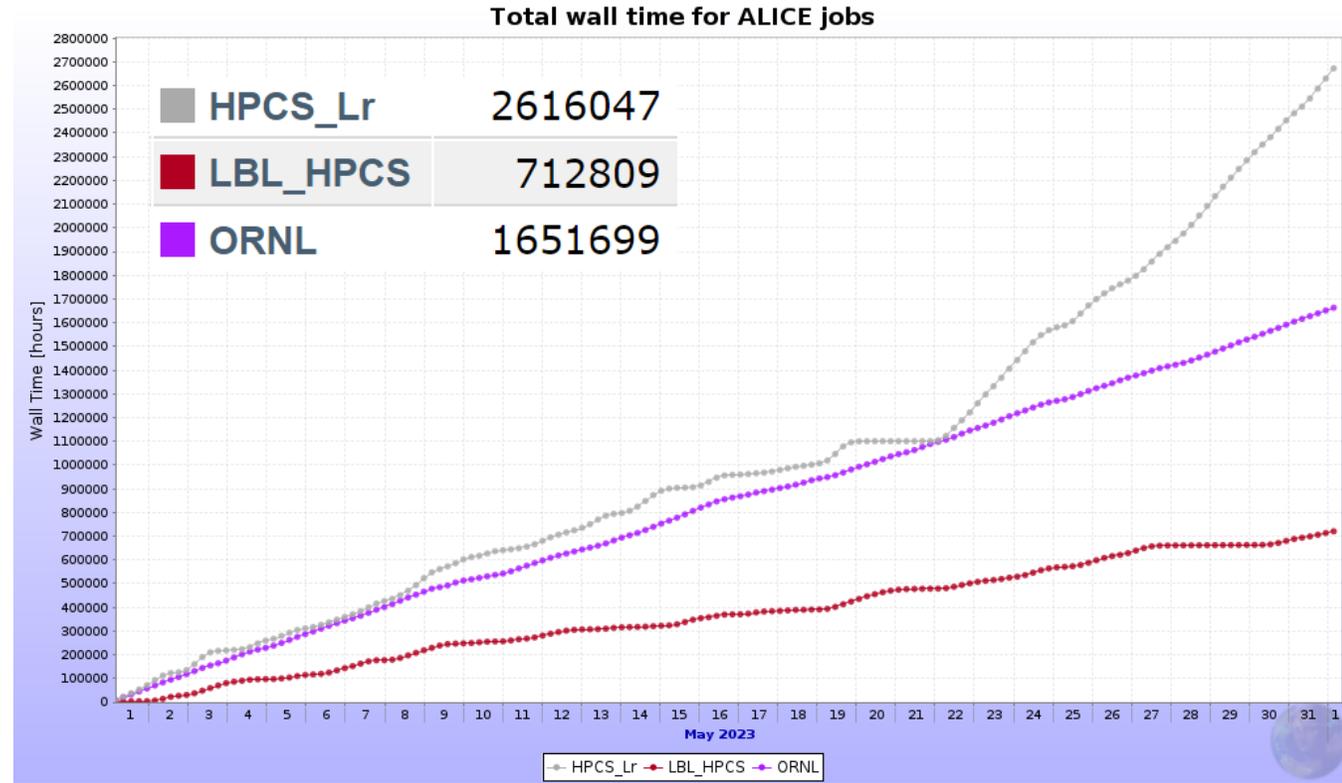
	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	76.14	0	68.38	153.6
2.	LBL_HPCS	37.46	0	64.14	97.61
3.	NIHAM	51.82	14.14	76.8	105.2
4.	ORNL	93.45	0	75.85	129.3
5.	UPB	81.47	5.196	79.66	96.47
Total		68.07		72.97	

Jobs efficiency (cpu time / wall time)



CPU Obligations		kHS06
ALICE-USA		94
LBNL HPCS T2		47
ORNL T2		47

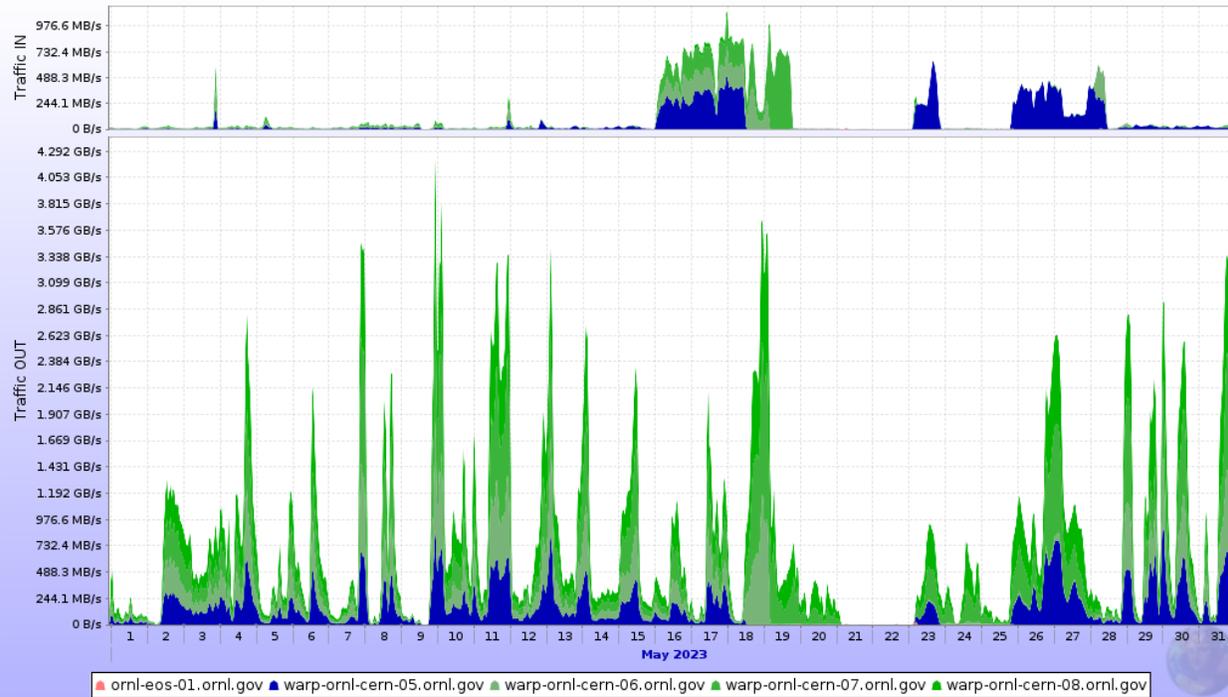
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	2616.05	5267.00	36.80
LBNL	712.81		
ORNL	1651.70	2787.40	40.74
Total	4,980.56	8,054.40	38.16



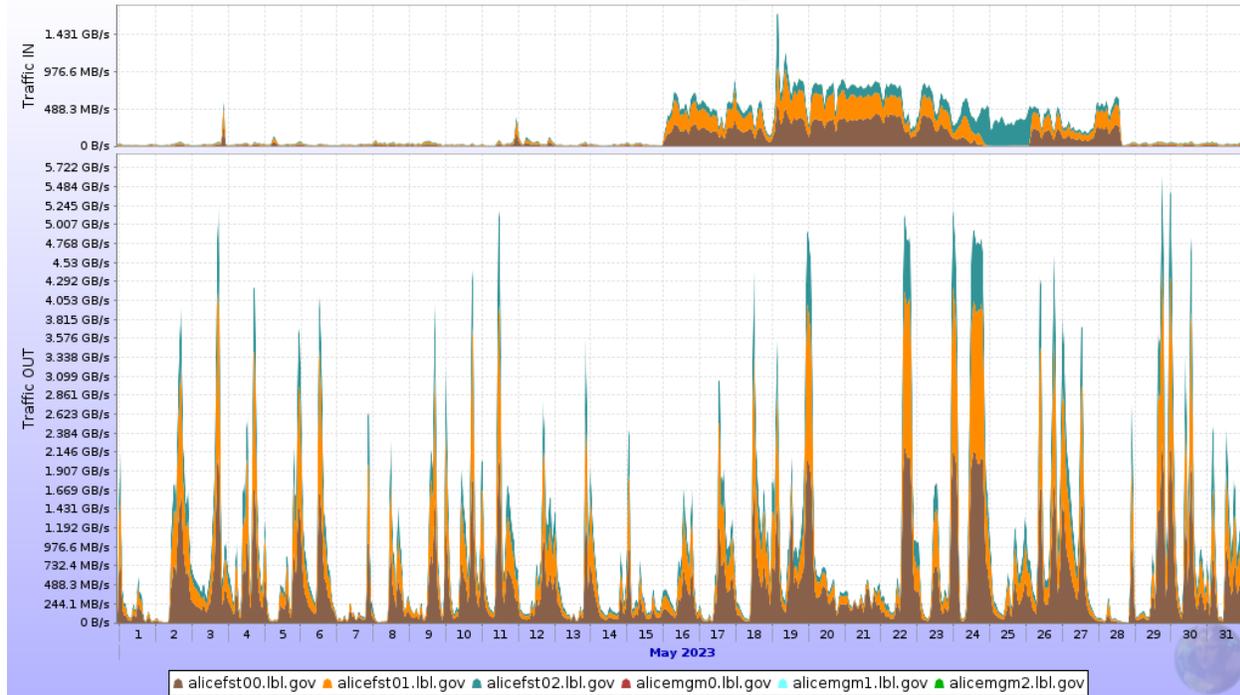
T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS06 x hr] (ML reporter)	CPU Delivered [MHS06 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	12.0	34.97	31.39	63.20	89.8	180.7
LBNL	16.7		11.90		34.0	
ORNL	11.5	34.97	18.99	32.06	54.3	91.7
Total		69.94	62.29	95.26	89.07%	136.21%

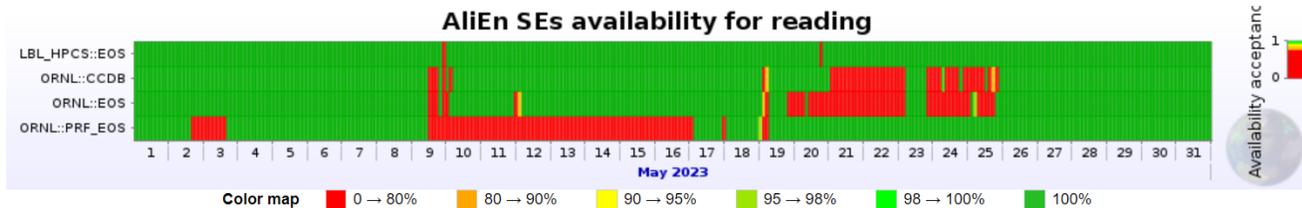
Network Traffic at LBL and ORNL

Network traffic on ALICE::ORNL::EOS

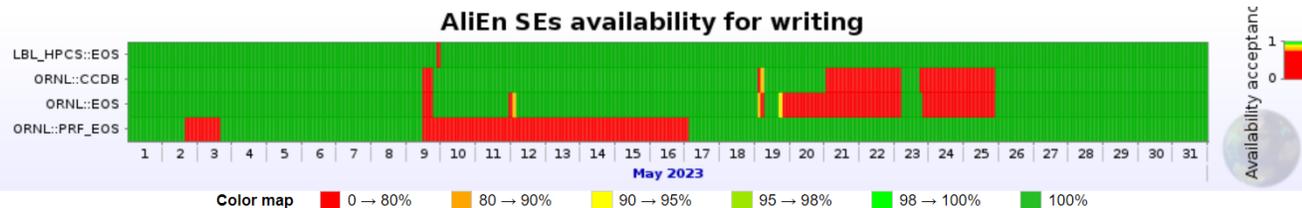


Network traffic on ALICE::LBL_HPCS::EOS





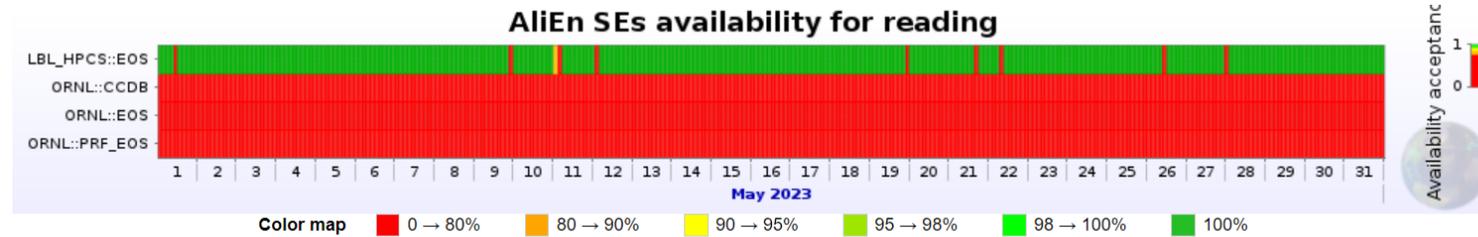
Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 May 2023 00:20	31 May 2023 23:50	743	2	99.73%	99.74%
ORNL::CCDB	01 May 2023 00:08	31 May 2023 23:38	661	87	88.37%	88.53%
ORNL::EOS	01 May 2023 00:21	31 May 2023 23:52	644	101	86.44%	86.52%
ORNL::PRF_EOS	01 May 2023 00:09	31 May 2023 23:39	542	207	72.36%	72.29%



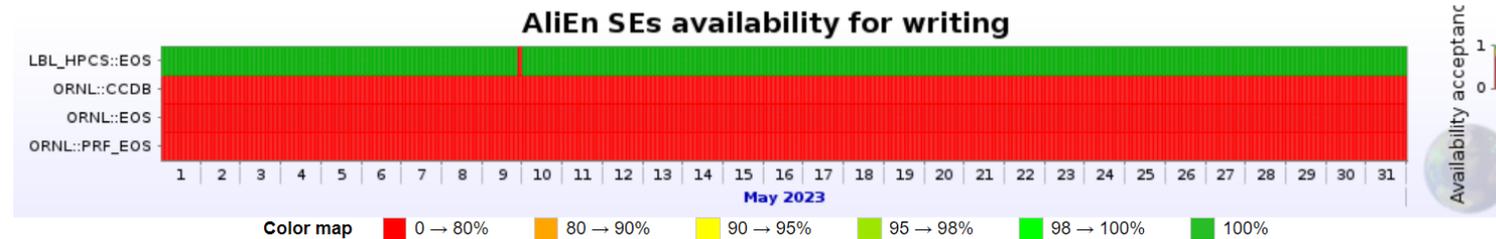
Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 May 2023 00:20	31 May 2023 23:50	744	1	99.87%	99.87%
ORNL::CCDB	01 May 2023 00:08	31 May 2023 23:38	641	107	85.70%	85.84%
ORNL::EOS	01 May 2023 00:21	31 May 2023 23:52	608	137	81.61%	81.69%
ORNL::PRF_EOS	01 May 2023 00:09	31 May 2023 23:39	545	204	72.76%	72.69%

Storage-provided information						
SE Name	Size	Used	Free	Usage	Version	EOS Version
1. LBL_HPCS - EOS	2.741 PB	2.295 PB	456 TB	83.75%	Xrootd v4.12.8	4.8.89
2. ORNL - CCDB	-	-	-	-		
3. ORNL - EOS	3.567 PB	1.342 PB	2.225 PB	37.62%		4.8.101
4. ORNL - PRF_EOS	807.7 TB	240.4 TB	567.3 TB	29.76%		5.1.14
Total	7.096 PB	3.872 PB	3.224 PB			

Using IPv6 Only



Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 May 2023 00:21	31 May 2023 23:51	735	10	98.66%	98.67%
ORNL::CCDB	01 May 2023 00:11	31 May 2023 23:41	0	748	0%	0%
ORNL::EOS	30 Apr 2023 23:24	31 May 2023 23:54	0	745	0%	0%
ORNL::PRF_EOS	01 May 2023 00:12	31 May 2023 23:42	0	748	0%	0%



Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 May 2023 00:20	31 May 2023 23:51	744	1	99.87%	99.88%
ORNL::CCDB	01 May 2023 00:11	31 May 2023 23:41	0	748	0%	0%
ORNL::EOS	30 Apr 2023 23:24	31 May 2023 23:54	0	745	0%	0%
ORNL::PRF_EOS	01 May 2023 00:12	31 May 2023 23:42	0	748	0%	0%

EOS: Success Ratio



Averaged metrics for the selected interval						
SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 May 2023 03:38	31 May 2023 23:32	98.81 %	0.71 %	0.45 %	0.04 %
LBL_HPCS::EOS	01 May 2023 03:33	31 May 2023 23:26	91.54 %	1.66 %	6.80 %	0.00 %
ORNL::EOS	01 May 2023 03:35	31 May 2023 23:15	83.49 %	0.31 %	16.20 %	0.00 %
UPB::EOS	01 May 2023 03:36	31 May 2023 23:58	97.61 %	0.09 %	2.31 %	0.00 %

Status from the File Crawler

Status codes extracted from the crawler

SE Name: Interval:

Status Type	Status Code	Status Count	Status Code Ratio	Download throughput
FILE_OK	S_FILE_CHECKSUM_MATCH	27716	92.91 %	65.29 Mb/s
FILE_OK	E_CATALOGUE_MD5_IS_BLANK	37	0.12 %	65.89 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	1691	5.67 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	388	1.30 %	
TOTAL		29832	100 %	

Status codes extracted from the crawler

SE Name: Interval:

Status Type	Status Code	Status Count	Status Code Ratio	Download throughput
FILE_OK	S_FILE_CHECKSUM_MATCH	15189	64.05 %	58.80 Mb/s
FILE_OK	E_CATALOGUE_MD5_IS_BLANK	4	0.02 %	53.01 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	8494	35.82 %	
FILE_INACCESSIBLE	XROOTD_TIMED_OUT	1	0.00 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	24	0.10 %	
FILE_CORRUPT	LOCAL_FILE_SIZE_DIFFERENT	1	0.00 %	
TOTAL		23713	100 %	

Site Status Dashboard

2 Months ago

ORNL, LBL		
Site name	VOBox and SE problems	Remarks
ORNL voboxslr.alice.ornl.gov	ALICE::ORNL::EOS redirector ALICE::ORNL::EOS doesn't see all nodes, only 2.295 PB out of 2.725 PB total space is connected Networking : low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking : No IPv6 public address CVMFS : old CVMFS version detected (2.9.3), please upgrade to 2.10.1.	Underperforming : the site is only running 264 jobs at the moment, expecting at least 322 jobs.
LBL_HPCS alice-vobox.lbl.gov	Networking : low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking : No IPv6 public address CVMFS : old CVMFS version detected (2.10.0), please upgrade to 2.10.1.	Low long-term average job efficiency Underperforming : the site is only running 118 jobs at the moment, expecting at least 218 jobs.
2 sites	7 issues	3 remarks

This month
Right now!

Site name	VOBox and SE problems	Remarks
LBL_HPCS alice-vobox.lbl.gov	Networking : low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking : No IPv6 public address CVMFS : old CVMFS version detected (2.10.0), please upgrade to 2.10.1.	Underperforming : the site is only running 262 jobs at the moment, expecting at least 290 jobs.
ORNL voboxslr.alice.ornl.gov	Networking : low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking : No IPv6 public address CVMFS : old CVMFS version detected (2.9.3), please upgrade to 2.10.1.	Underperforming : the site is only running 295 jobs at the moment, expecting at least 397 jobs.
2 sites	6 issues	2 remarks