

ALICE-USA Operations Monthly Status for July 2023

August 15, 2023



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report

ALICE

Federation Details

July 2023

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		
						Apr-2023	May-2023	Jun-2023
US-LBNL-ALICE	94300	9800						
LBL_HPCS			64%	64%	14%	92%	100%	100%
ORNL			99%	99%	1%	100%	86%	87%

Job Summary

- LBL-HPCS

- Power work at ITD
- Took some time to bring back voboxes

- ORNL

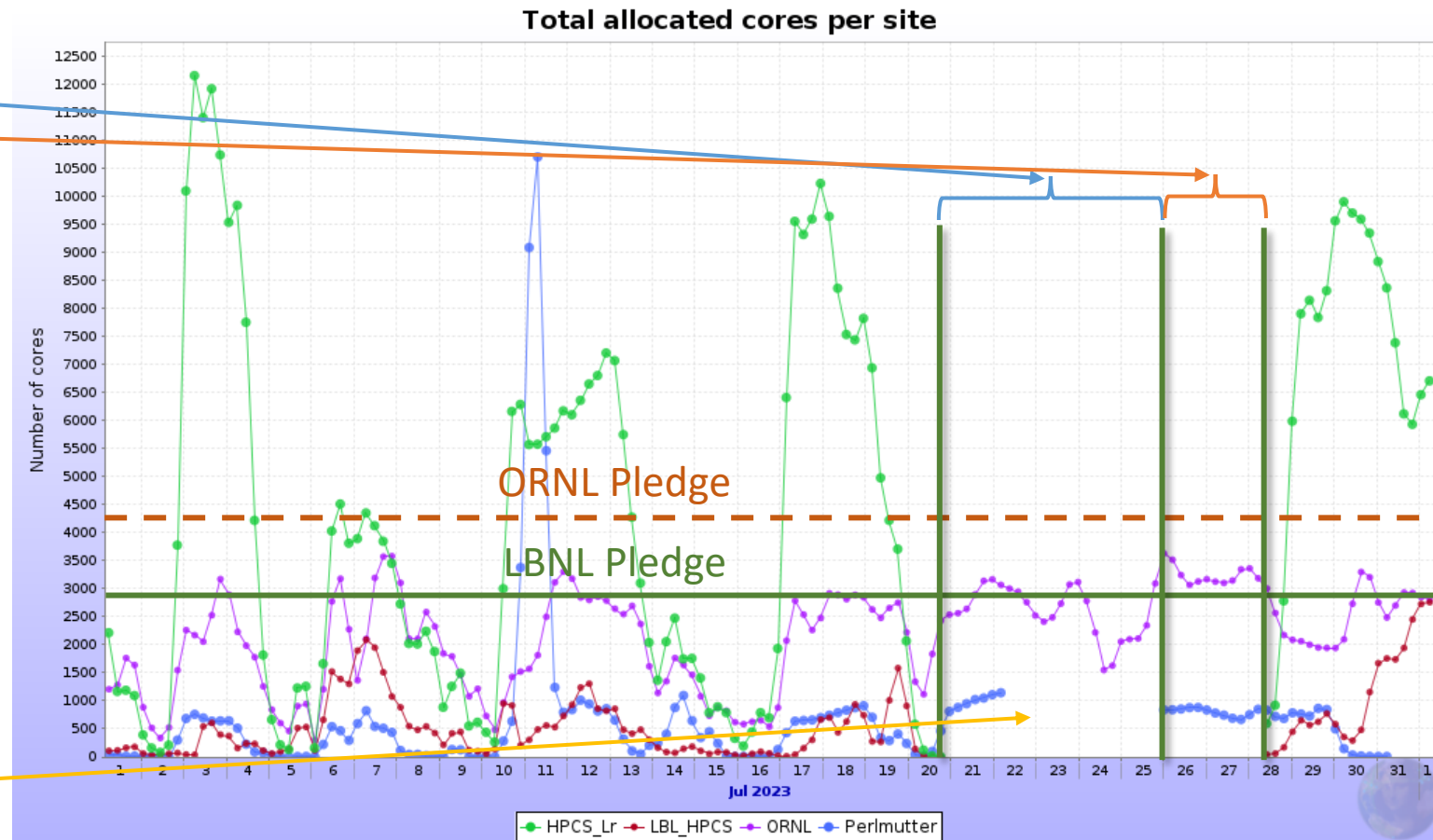
- Doing well

- Lawrencium

- Doing well
- Looking forward to Ir7 in our pool (at least the STAR nodes pls 😊)

- Perlmutter

- Low job availability in general because we kept TTL to 12 hours
- Wanted to move jobs to the shared account

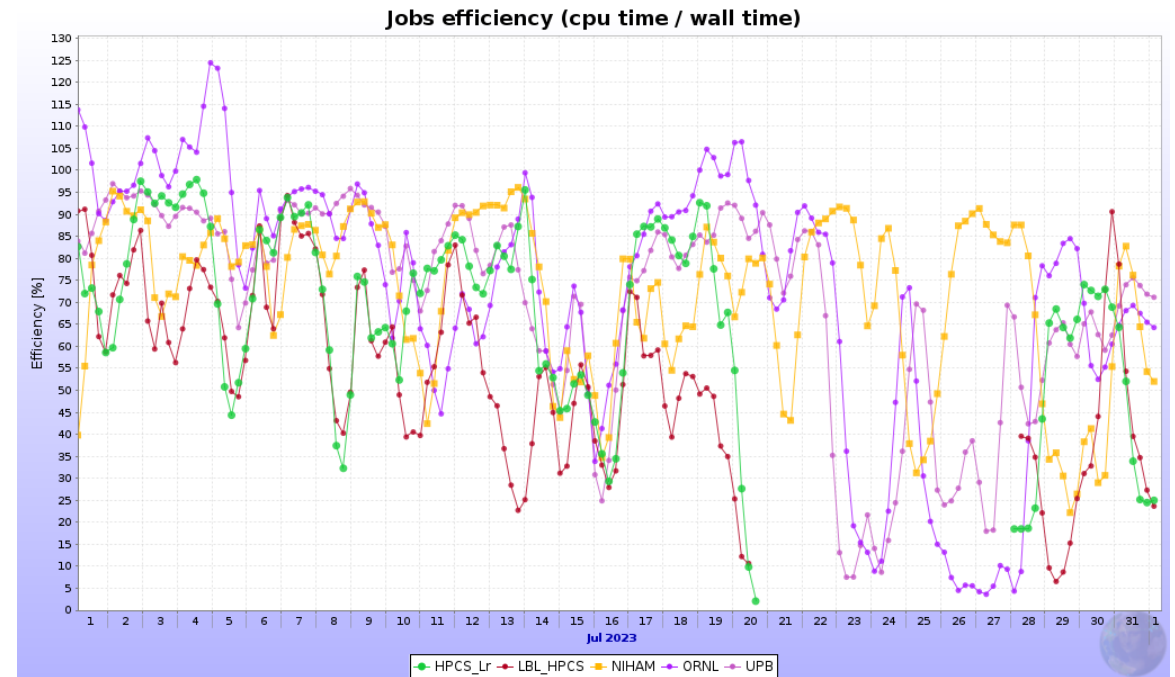


CPU Efficiency

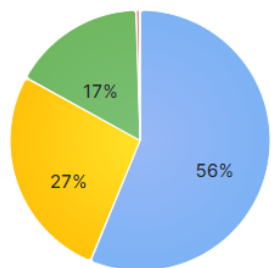
Target Efficiency is ~80%

Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	24.98	0	67.17	107.4
2.	LBL_HPCS	23.65	0	54.08	100.2
3.	NIHAM	52	0	72.04	119
4.	ORNL	64.27	0.084	71.74	147.4
5.	UPB	71.15	0	70.01	100.2
Total		47.21		67.01	

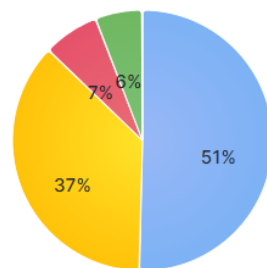


Average Job Mix [LBL_HPCS]



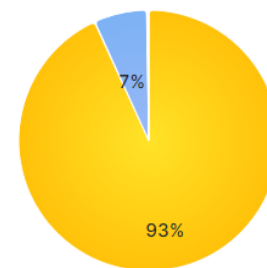
Train	56%
SIM	27%
Other	17%
Hyperloop	0%
DAQ	0%

Average Job Mix [ORNL]



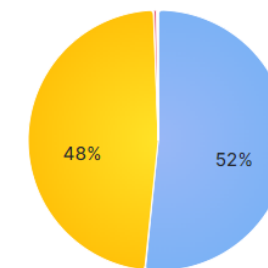
Train	51%
SIM	37%
Hyperloop	7%
Other	6%
DAQ	0%

Average Job Mix [Perlmutter]



SIM	93%
Train	7%
Other	0%
Hyperloop	0%
DAQ	0%

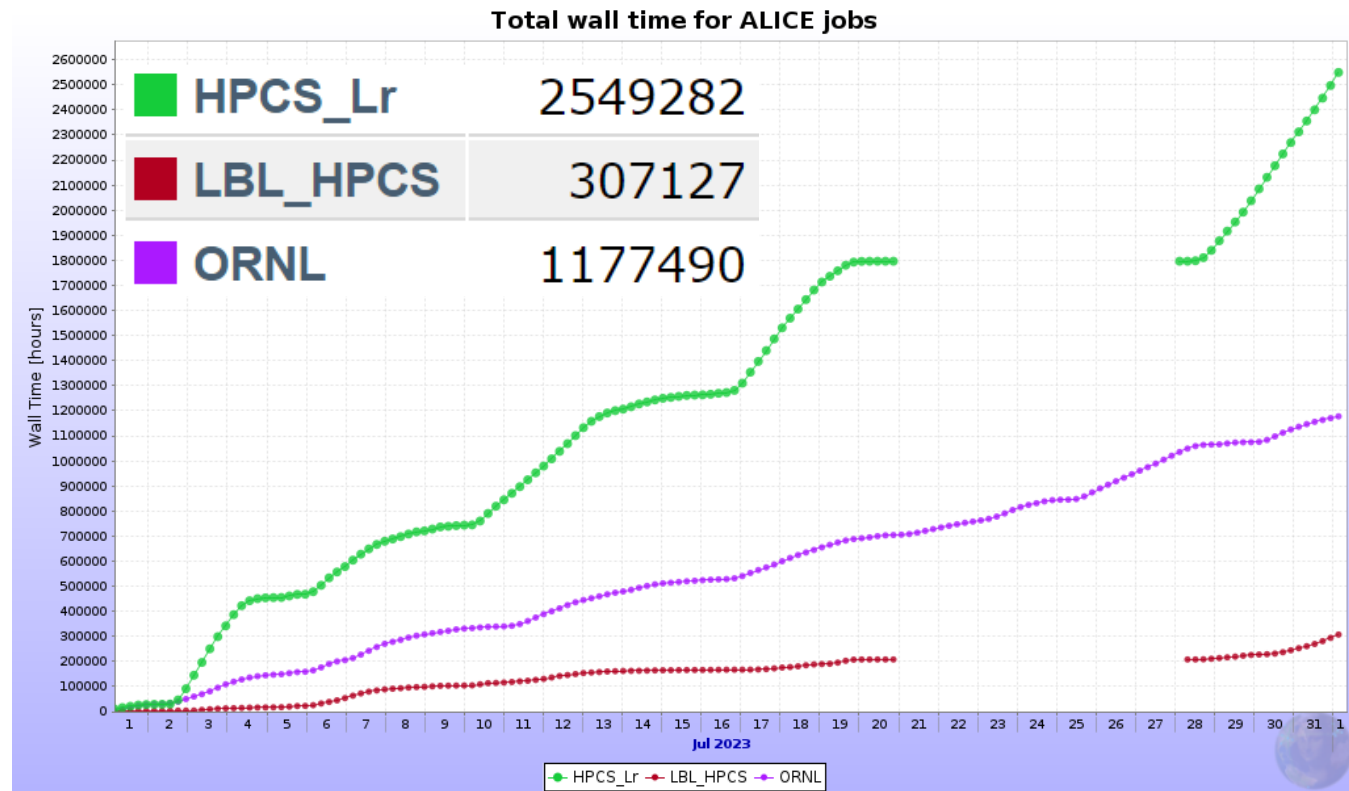
Average Job Mix [HPCS_Lr]



Train	52%
SIM	48%
Hyperloop	0%
Other	0%
DAQ	0%

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

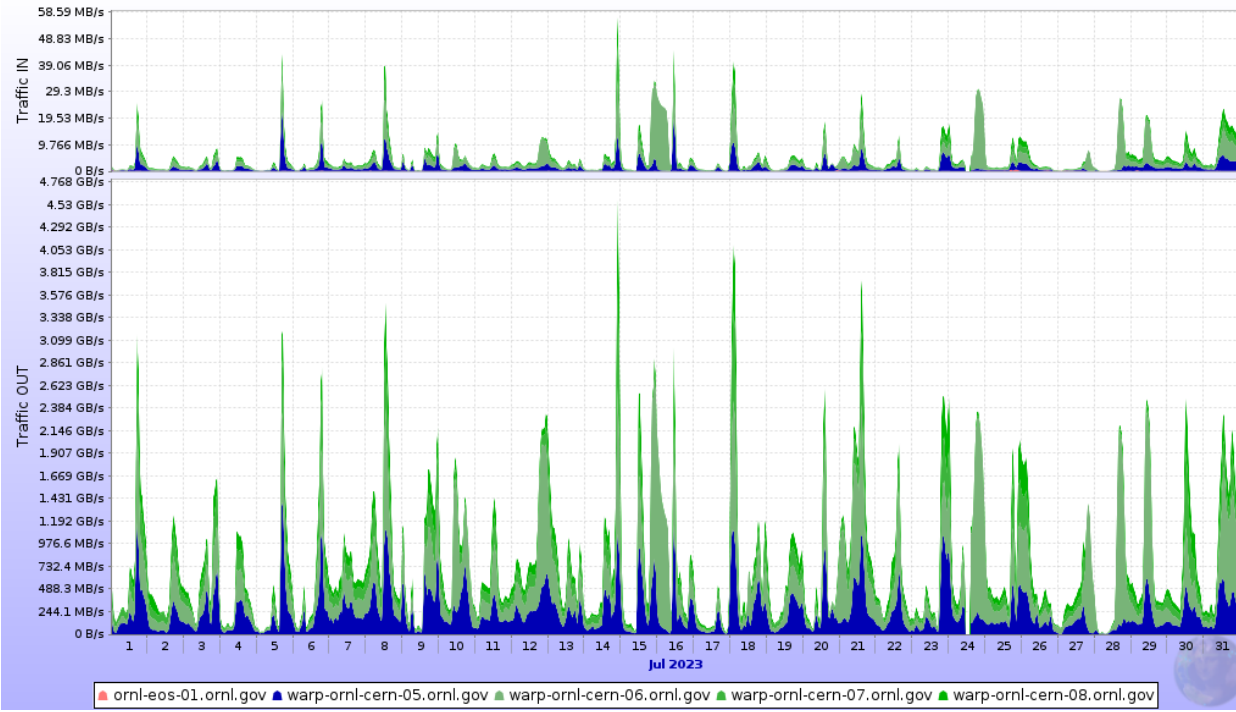
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	2549.30	4432.80	35.56
LBNL	307.10		
ORNL	1177.50	2537.60	53.60
Total	4,033.90	6,970.40	42.13



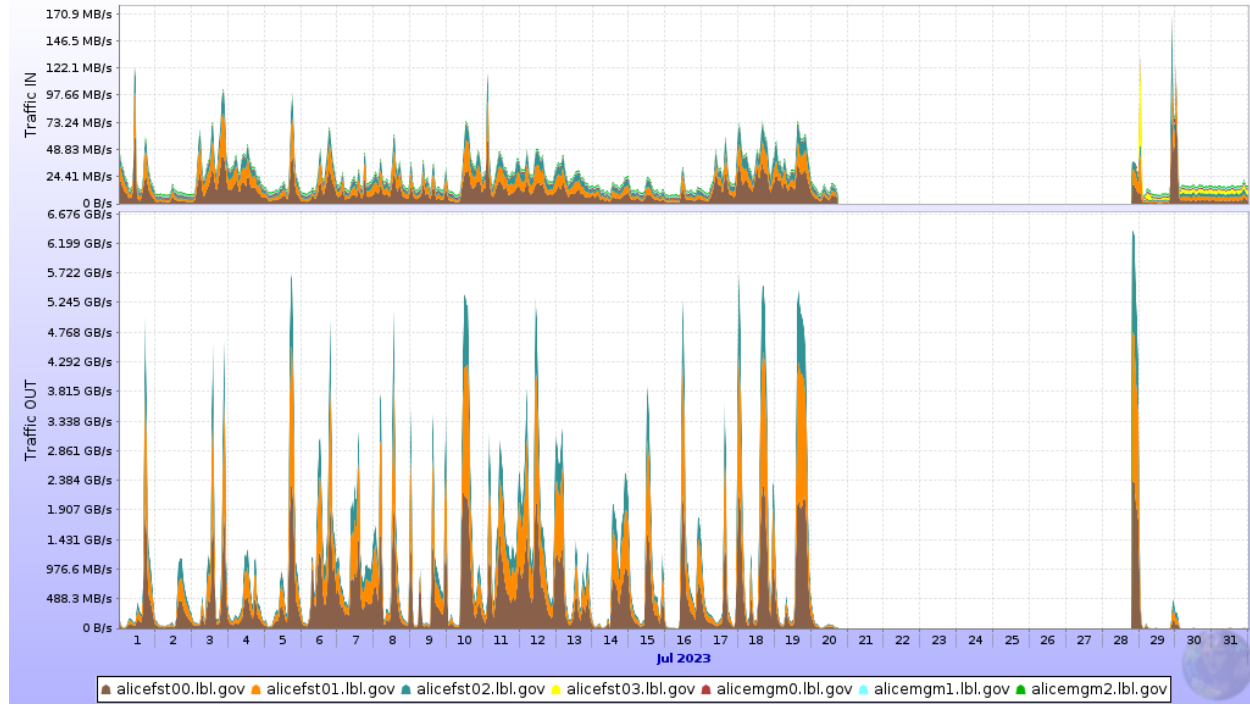
T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS06 x hr] (ML reporter)	CPU Delivered [MHS06 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	12.0	34.97	30.59	53.19	87.5	152.1
LBNL	16.7		5.13		14.7	
ORNL	11.5	33.42	13.54	29.18	40.5	87.3
Total		68.39	49.26	82.38	72.04%	120.46%

Network Traffic at LBL and ORNL

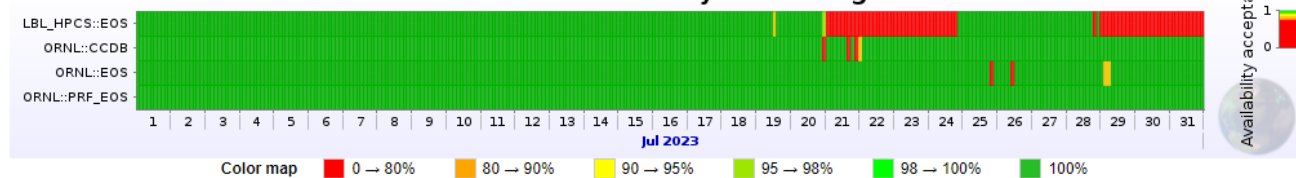
Network traffic on ALICE::ORNL::EOS



Network traffic on ALICE::LBL_HPCS::EOS

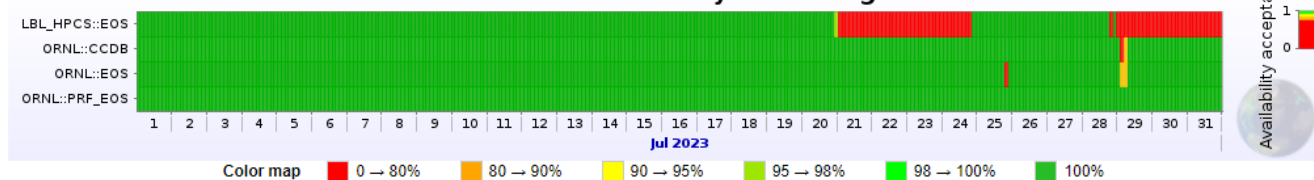


AliEn SEs availability for reading



Statistics						
Link name	Data		Individual results of reading tests			Overall Availability
	Starts	Ends	Successful	Failed	Success ratio	
LBL_HPCS::EOS	30 Jun 2023 23:10	31 Jul 2023 23:26	585	161	78.42%	78.44%
ORNL::CCDB	30 Jun 2023 23:58	31 Jul 2023 23:11	745	3	99.60%	99.61%
ORNL::EOS	30 Jun 2023 23:10	31 Jul 2023 23:24	742	3	99.60%	99.60%
ORNL::PRF_EOS	30 Jun 2023 23:58	31 Jul 2023 23:12	748	0	100%	100%

AliEn SEs availability for writing

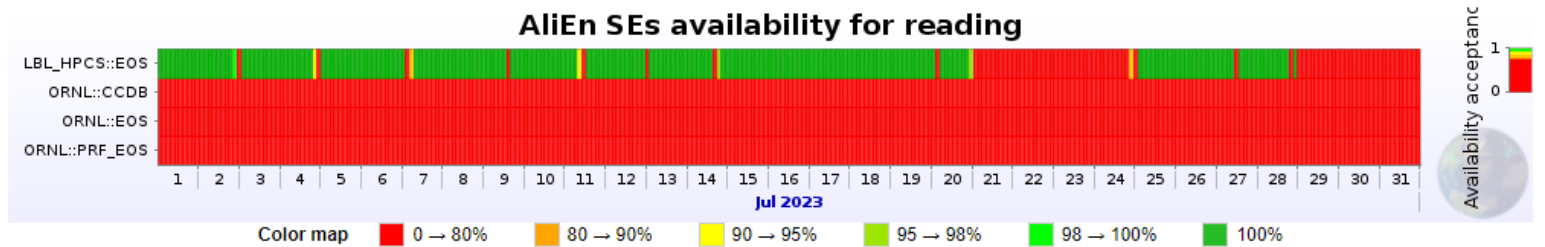


Statistics						
Link name	Data		Individual results of writing tests			Overall Availability
	Starts	Ends	Successful	Failed	Success ratio	
LBL_HPCS::EOS	30 Jun 2023 23:10	31 Jul 2023 23:26	585	162	78.31%	78.35%
ORNL::CCDB	30 Jun 2023 23:58	31 Jul 2023 23:11	747	1	99.87%	99.87%
ORNL::EOS	30 Jun 2023 23:10	31 Jul 2023 23:23	743	2	99.73%	99.74%
ORNL::PRF_EOS	30 Jun 2023 23:58	31 Jul 2023 23:11	748	0	100%	100%

Storage-provided information

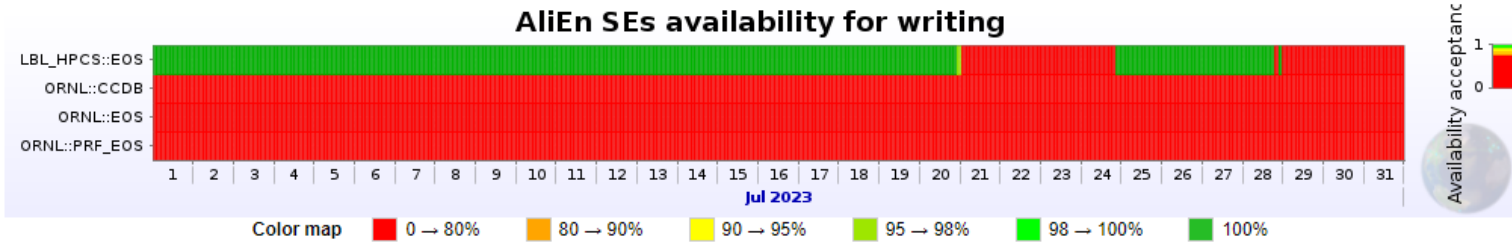
SE Name	Size	Used	Free	Usage	Version	EOS Version
1. LBL_HPCS - EOS	3.941 PB	2.178 PB	1.763 PB	55.26%	Xrootd v4.12.8	4.8.101
2. ORNL - CCDB	-	-	-	-		
3. ORNL - EOS	4.957 PB	1.259 PB	3.699 PB	25.39%	Xrootd v5.5.5	5.1.27
4. ORNL - PRF_EOS	807.7 TB	240.4 TB	567.3 TB	29.76%		5.1.14
Total	9.687 PB	3.671 PB	6.016 PB			

Using IPv6 Only



Statistics

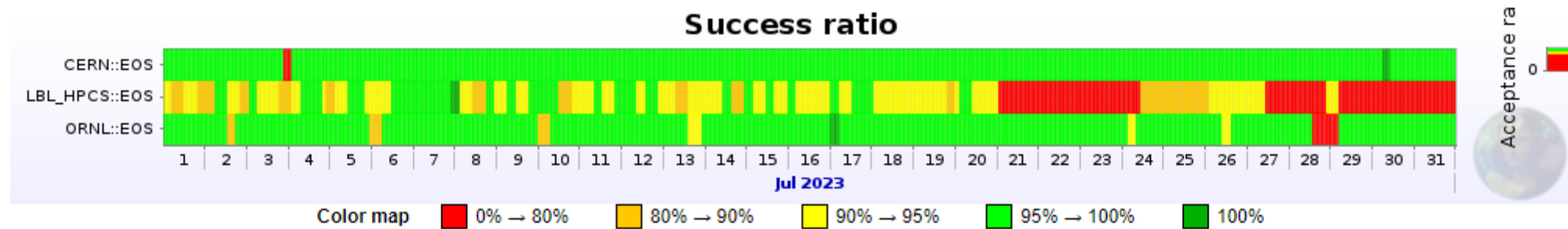
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	30 Jun 2023 23:10	31 Jul 2023 23:29	574	170	77.15%	77.16%
ORNL::CCDB	01 Jul 2023 00:00	31 Jul 2023 23:14	0	748	0%	0%
ORNL::EOS	30 Jun 2023 23:13	31 Jul 2023 23:26	0	744	0%	0%
ORNL::PRF_EOS	01 Jul 2023 00:01	31 Jul 2023 23:14	0	747	0%	0%



Statistics

Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	30 Jun 2023 23:10	31 Jul 2023 23:29	583	161	78.36%	78.38%
ORNL::CCDB	01 Jul 2023 00:00	31 Jul 2023 23:14	0	748	0%	0%
ORNL::EOS	30 Jun 2023 23:13	31 Jul 2023 23:26	0	744	0%	0%
ORNL::PRF_EOS	01 Jul 2023 00:01	31 Jul 2023 23:14	0	747	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 Jul 2023 01:06	31 Jul 2023 17:45	98.88 %	0.62 %	0.47 %	0.04 %
LBL_HPCS::EOS	01 Jul 2023 00:59	31 Jul 2023 23:54	80.11 %	1.36 %	18.53 %	0.00 %
ORNL::EOS	01 Jul 2023 01:01	31 Jul 2023 23:43	98.21 %	0.35 %	1.44 %	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	24669	92.42 %	58.63 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	17	0.06 %	54.91 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	1618	6.06 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	389	1.46 %	
TOTAL		26693	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	18285	98.35 %	70.00 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	10	0.05 %	85.52 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	253	1.36 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	44	0.24 %	
TOTAL		18592	100 %	

Site Status Dashboard

ORNL, LBL		
Site name	VOBox and SE problems	Remarks
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.	
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.	
2 sites	6 issues	0 remarks

Last Month

Site status dashboard		
ORNL, LBL		
Site name	VOBox and SE problems	
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.	
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. ALICE::LBL_HPCS::EOS: ADD test fails since 12 Aug 2023 00:29 (for 2d 21:46).	
2 sites	7 issues	

This month