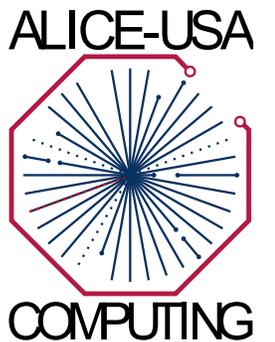


ALICE-USA Operations Monthly Status for June 2023

July 18, 2023



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report ALICE

June 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		
						Mar-2023	Apr-2023	May-2023
US-LBNL-ALICE	94300	9800						
LBL_HPCS			100%	100%	0%	85%	92%	100%
ORNL			87%	87%	1%	97%	100%	86%

Job Summary

- LBL-HPCS

- Switched to Whole-node scheduling
- Now job pressure in general so it was hard to catch that we had an issue with slurm configuration
- Karen fixed it

- ORNL

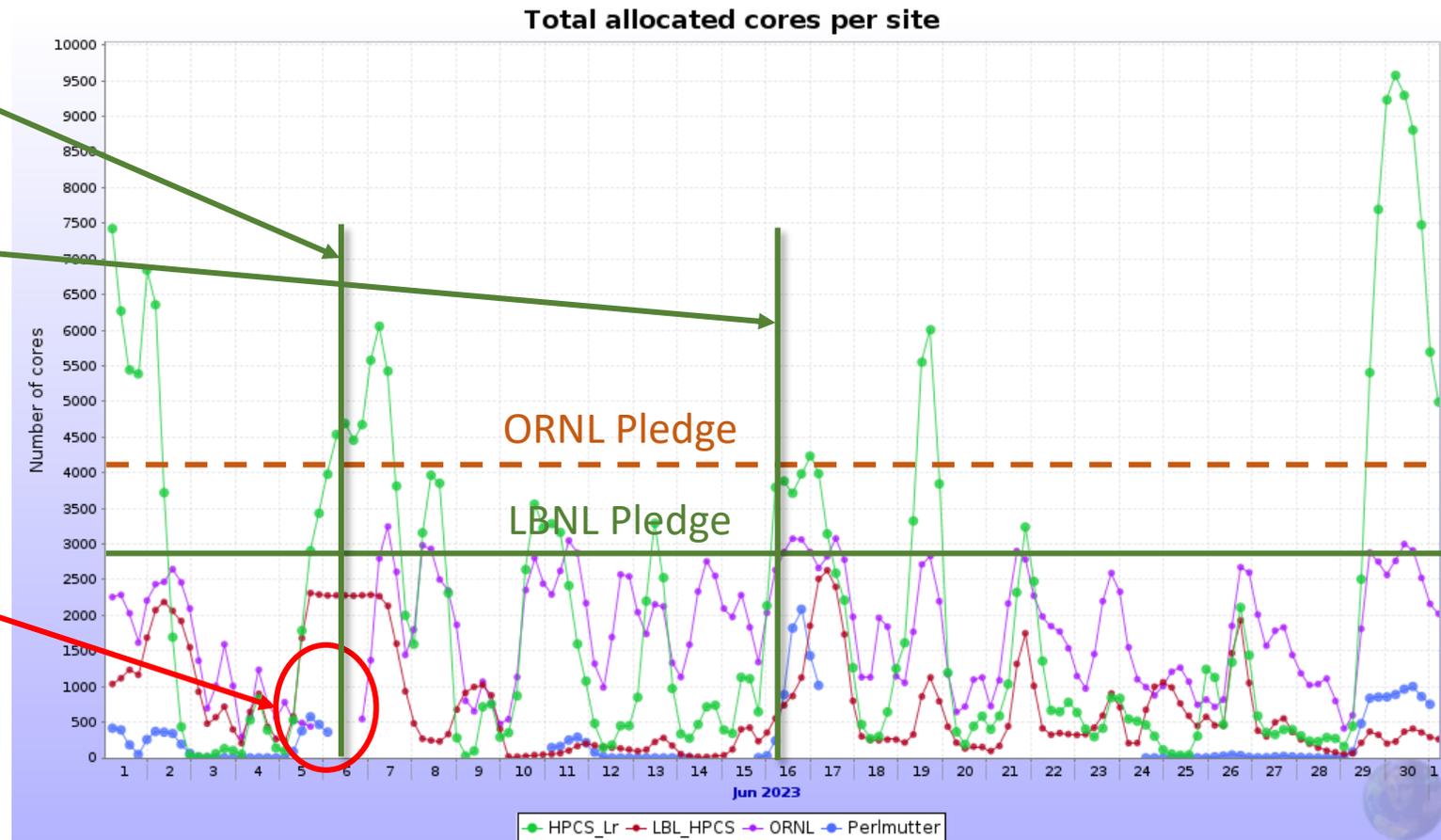
- Doing well
- About a day of a downtime due to the power work

- Lawrencium

- Doing well

- Perlmutter

- Now part of the family
- Running all types of jobs
- Mostly SIM but some train jobs have been spotted
- It still has noticeable downtimes



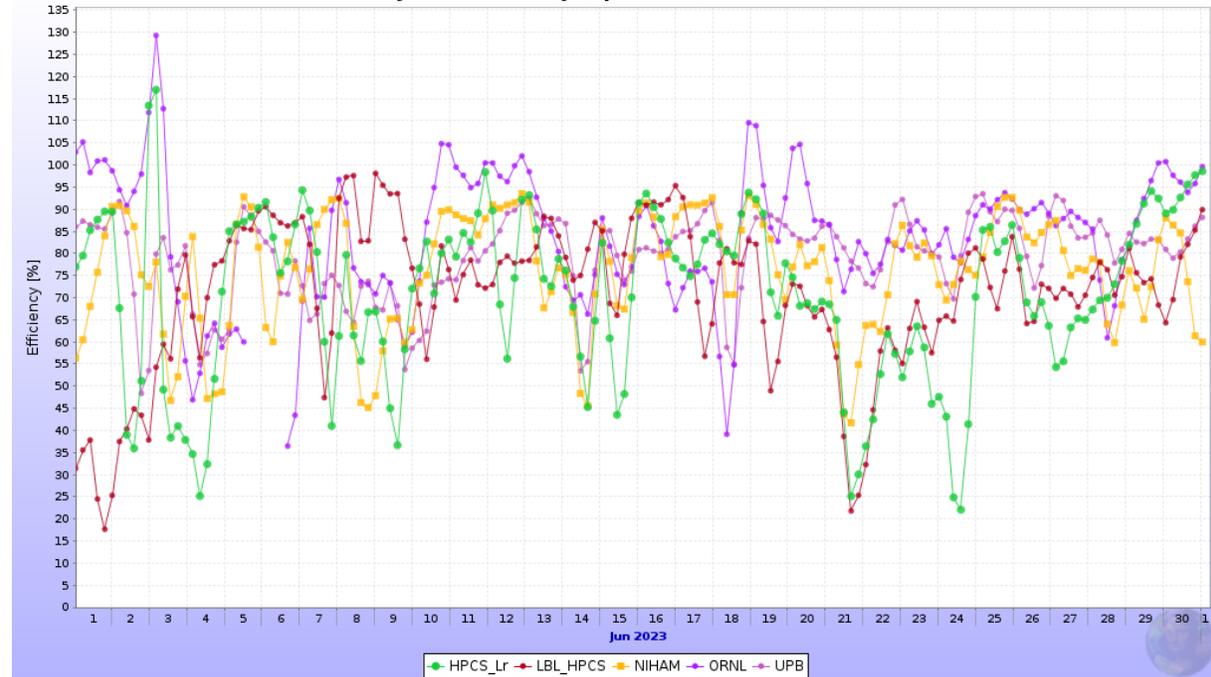
CPU Efficiency

Target Efficiency is ~80%

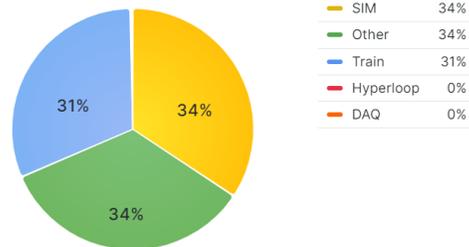
Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	98.57	3.937	70.73	210.1
2.	LBL_HPCS	89.9	0	71.25	99.91
3.	NIHAM	59.97	8.817	76.07	99.54
4.	ORNL	99.62	3.318	83.72	146.8
5.	UPB	88.13	10.97	79.22	99.49
Total		87.24		76.2	

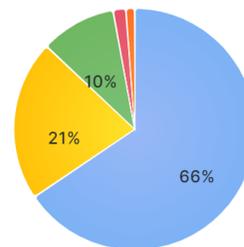
Jobs efficiency (cpu time / wall time)



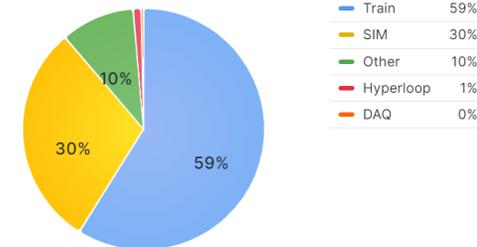
Average Job Mix [LBL_HPCS]



Average Job Mix [ORNL]

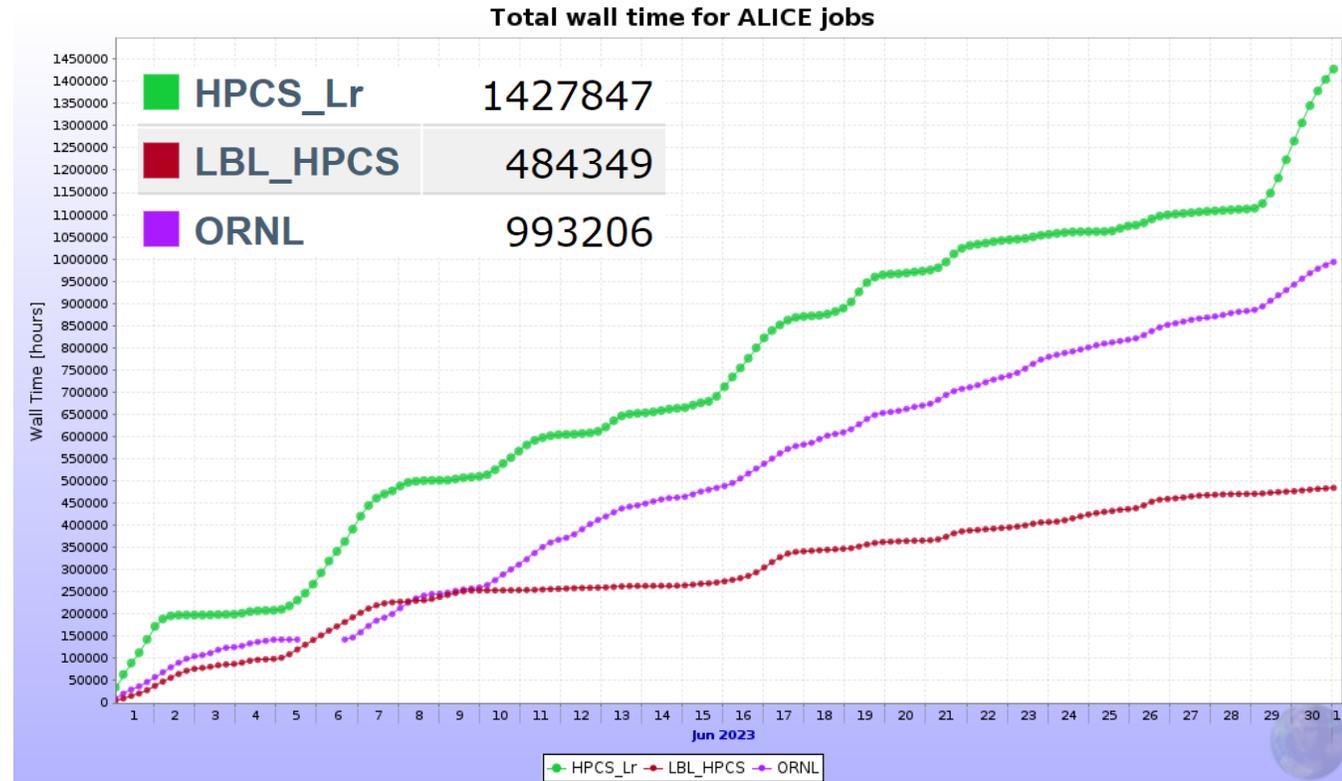


Average Job Mix [HPCS_Lr]



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

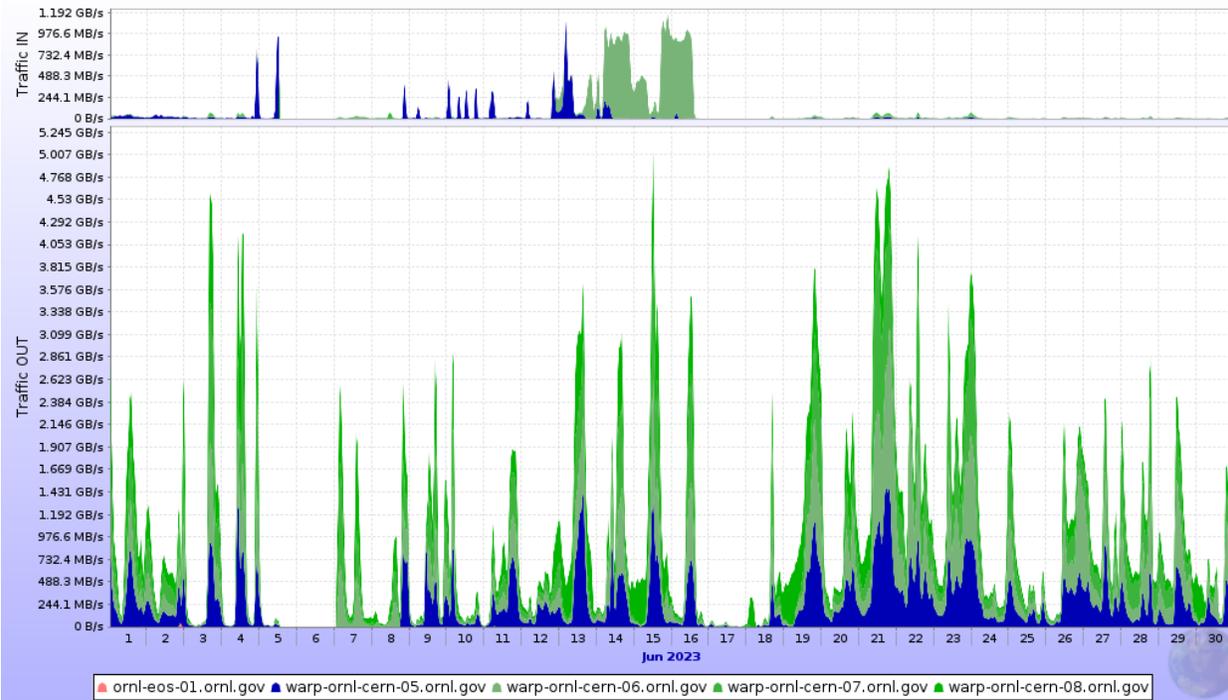
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	1427.85	4408.93	56.63
LBNL	484.35		
ORNL	993.21	2247.78	55.81
Total	2,905.41	6,656.71	56.35



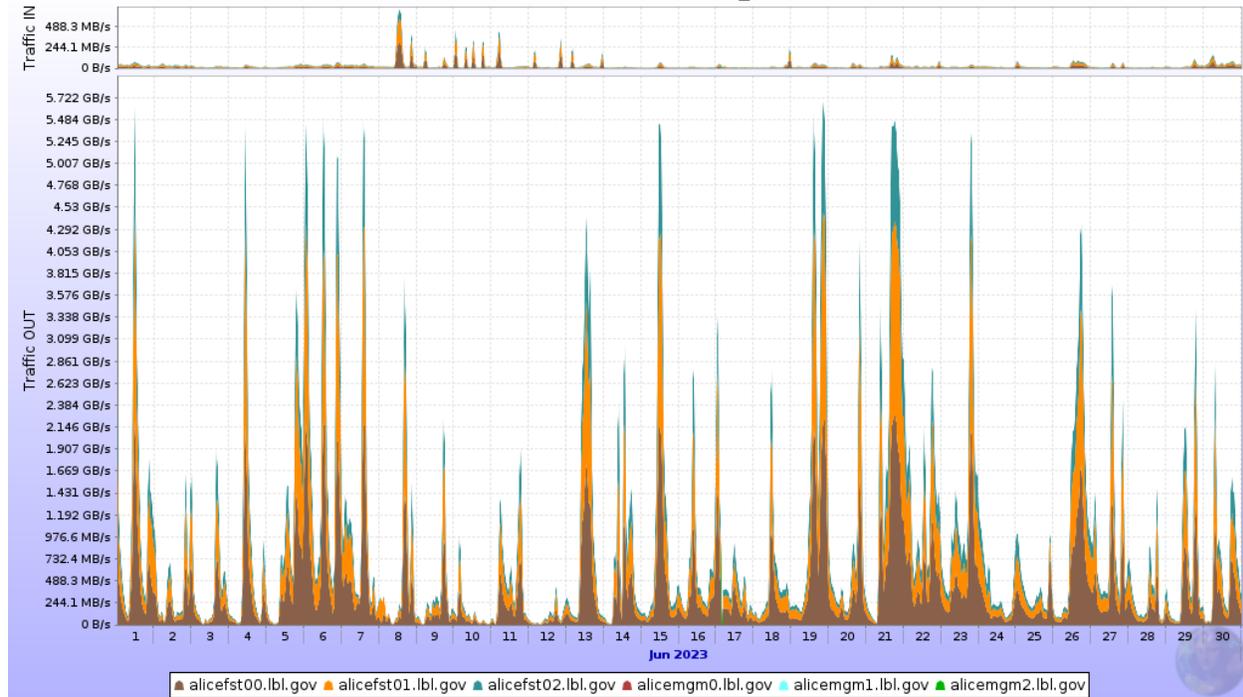
T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS06 x hr] (ML reporter)	CPU Delivered [MHS06 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	12.0	33.84	17.13	52.91	50.6	156.3
LBNL	16.7		8.09		23.9	
ORNL	11.5	32.29	11.42	25.85	35.4	80.1
Total		66.13	36.64	78.76	55.41%	119.10%

Network Traffic at LBL and ORNL

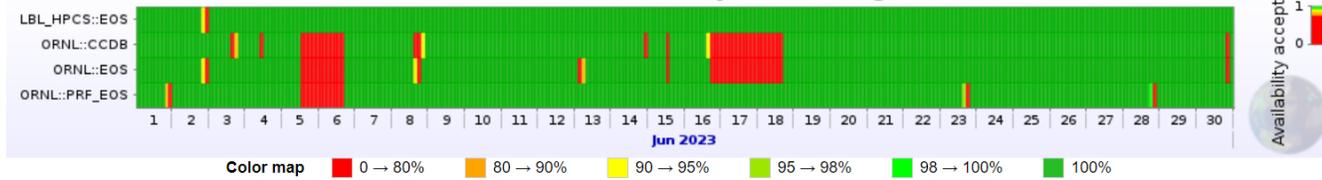
Network traffic on ALICE::ORNL::EOS



Network traffic on ALICE::LBL_HPCS::EOS



AliEn SEs availability for reading



Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	31 May 2023 23:50	01 Jul 2023 00:10	723	1	99.86%	99.87%
ORNL::CCDB	01 Jun 2023 00:39	30 Jun 2023 23:58	647	83	88.63%	88.51%
ORNL::EOS	31 May 2023 23:52	01 Jul 2023 00:10	642	81	88.80%	88.79%
ORNL::PRF_EOS	01 Jun 2023 00:39	30 Jun 2023 23:58	696	31	95.74%	95.70%

AliEn SEs availability for writing

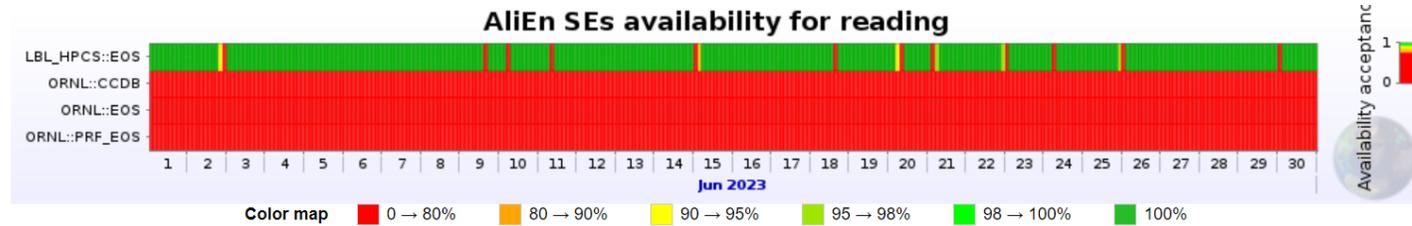


Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	31 May 2023 23:50	01 Jul 2023 00:10	723	1	99.86%	99.87%
ORNL::CCDB	01 Jun 2023 00:38	30 Jun 2023 23:58	647	83	88.63%	88.51%
ORNL::EOS	31 May 2023 23:52	01 Jul 2023 00:10	640	83	88.52%	88.53%
ORNL::PRF_EOS	01 Jun 2023 00:39	30 Jun 2023 23:58	699	28	96.15%	96.11%

Storage-provided information

SE Name	Size	Used	Free	Usage	Version	EOS Version
1. LBL_HPCS - EOS	2.741 PB	2.175 PB	579.5 TB	79.35%	Xrootd v4.12.8	4.8.89
2. ORNL - CCDB	-	-	-	-		
3. ORNL - EOS	3.567 PB	1.208 PB	2.358 PB	33.88%		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	3.618 PB	3.478 PB			

Using IPv6 Only



Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	31 May 2023 23:51	01 Jul 2023 00:10	711	12	98.34%	98.36%
ORNL::CCDB	01 Jun 2023 00:41	01 Jul 2023 00:00	0	726	0%	0%
ORNL::EOS	31 May 2023 23:54	01 Jul 2023 00:13	0	722	0%	0%
ORNL::PRF_EOS	01 Jun 2023 00:42	01 Jul 2023 00:01	0	725	0%	0%



Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	31 May 2023 23:51	01 Jul 2023 00:10	722	1	99.86%	99.88%
ORNL::CCDB	01 Jun 2023 00:41	01 Jul 2023 00:00	0	726	0%	0%
ORNL::EOS	31 May 2023 23:54	01 Jul 2023 00:13	0	722	0%	0%
ORNL::PRF_EOS	01 Jun 2023 00:42	01 Jul 2023 00:01	0	725	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 Jun 2023 05:22	30 Jun 2023 20:58	99.52 %	0.04 %	0.40 %	0.04 %
LBL_HPCS::EOS	01 Jun 2023 05:16	30 Jun 2023 19:02	93.84 %	1.08 %	5.07 %	0.01 %
ORNL::EOS	01 Jun 2023 05:17	30 Jun 2023 18:57	91.23 %	0.13 %	8.64 %	0.00 %
UPB::EOS	01 Jun 2023 05:18	30 Jun 2023 19:00	99.38 %	0.08 %	0.53 %	0.01 %

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	27117	95.04 %	59.26 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	28	0.10 %	54.87 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	1080	3.79 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	308	1.08 %	
TOTAL		28533	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	20949	99.04 %	49.74 Mb/s
	E_CATALOGUE_MD5_IS_BLANK	7	0.03 %	69.68 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	181	0.86 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	14	0.07 %	
TOTAL		21151	100 %	

Site Status Dashboard

Last Month

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

This month

Site name	VOBox and SE problems	Remarks
ORNL voboxslr.alice.ornl.gov	<p>Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only</p> <p>Networking: No IPv6 public address</p> <p>CVMFS: old CVMFS version detected (2.9.3), please upgrade to 2.10.1.</p>	
LBL_HPCS alice-vobox.lbl.gov	<p>Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only</p> <p>Networking: No IPv6 public address</p> <p>CVMFS: old CVMFS version detected (2.10.0), please upgrade to 2.10.1.</p>	
2 sites	6 issues	0 remarks