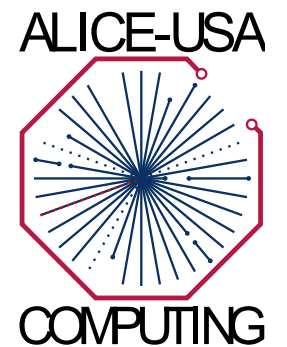


ALICE-USA Operations Monthly Status for December 2022

January 17, 2023



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report ALICE

December 2022

Federation Details

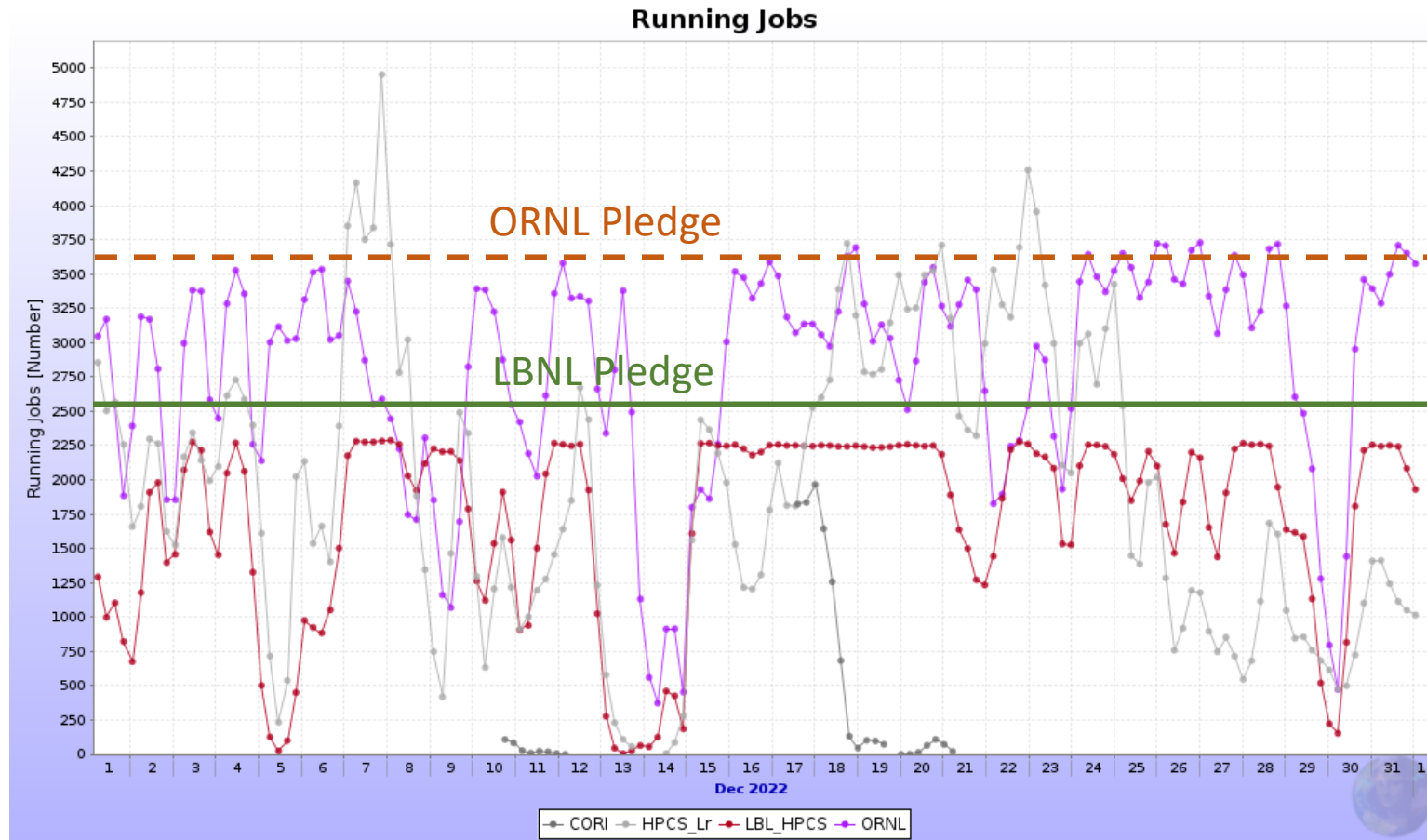
Availability Algorithm: @ALICE_CE * @ALICE_VOBOX * all AliEn-SE

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

Federation & Sites	Pledge CPU	Pledge Disk	Availability	Reliability	Unknown	Availability History		
						Sep-2022	Oct-2022	Nov-2022
US-LBNL-ALICE	82000	8400						
LBL_HPCS			100%	100%	0%	98%	100%	99%
ORNL			99%	99%	0%	100%	99%	100%

Job Summary

- Awaiting new hardware to meet RRB2022 pledges
- Job pressure not very stable
- LBL-HPSC
 - Steady dealing with the load
- ORNL
 - Steady dealing with the load
- Lawrencium
 - Steady performance
- Cori
 - We got allocation couple of times

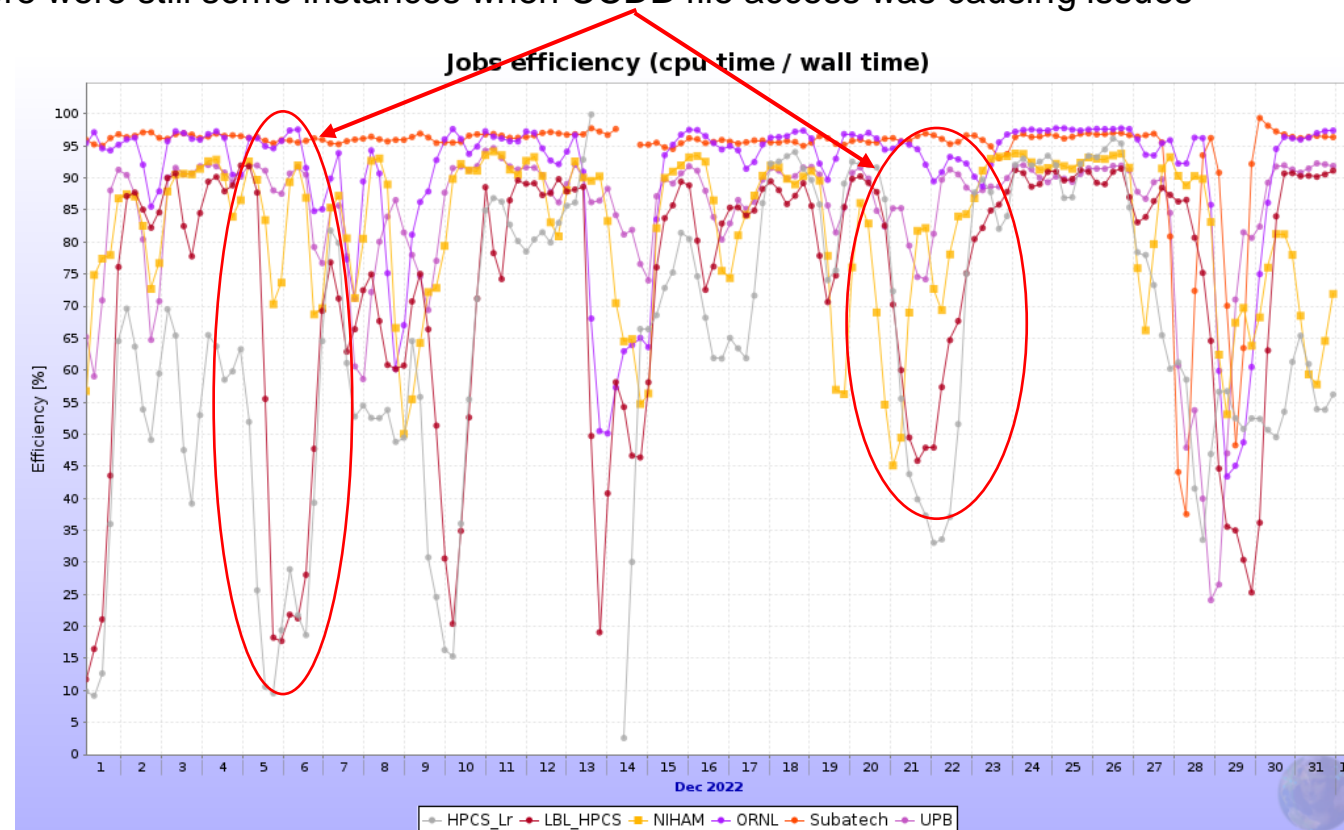


CPU Efficiency

- CPU Efficiency target is ~80%
- ORNL: about 90% of sim jobs.
- LBL_HPCS: about 77% of sim jobs. Efficiency a little low and there were still some instances when CCDB file access was causing issues

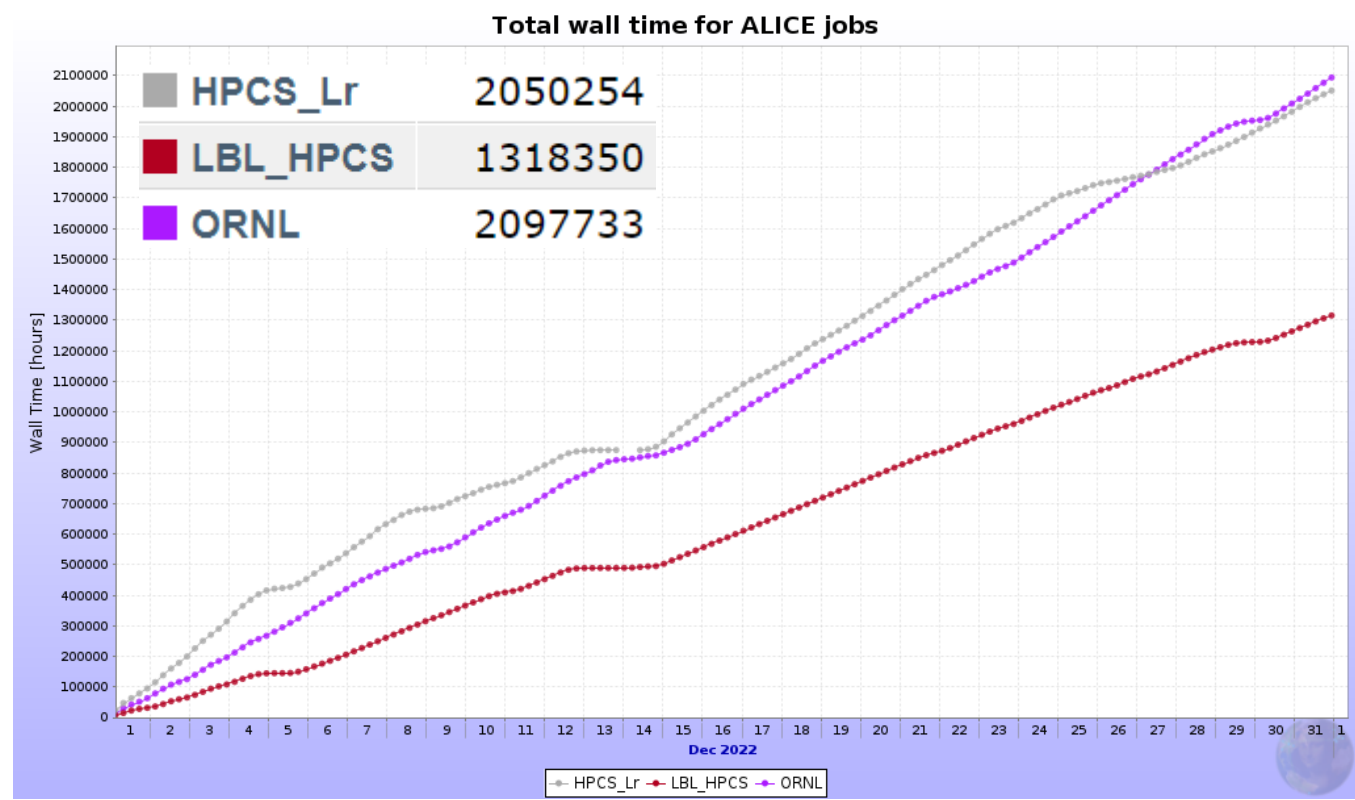
Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	56.2	0.495	63.93	99.97
2.	LBL_HPCS	91.15	1.243	72.59	140.2
3.	NIHAM	71.91	0	81.74	284.9
4.	ORNL	97.4	23.17	90.34	99.28
5.	Subatech	96.36	0.225	94.43	100.3
6.	UPB	91.87	3.508	84.41	128.5
Total		84.15		81.24	



CPU Obligations		kHS06
ALICE-USA		82
LBNL HPCS T2		41
ORNL T2		41

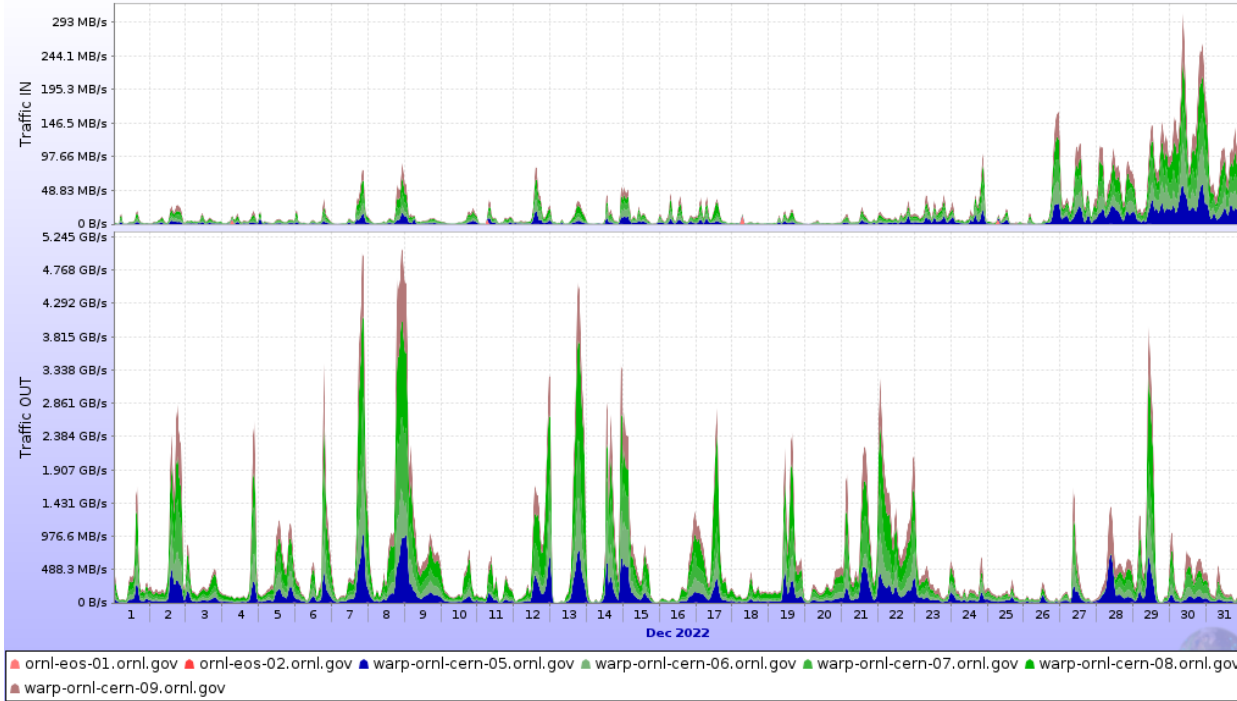
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	2050.10	4155.10	18.93
LBNL	1318.40		
ORNL	2097.70	2793.10	24.90
Total	5,466.20	6,948.20	21.33



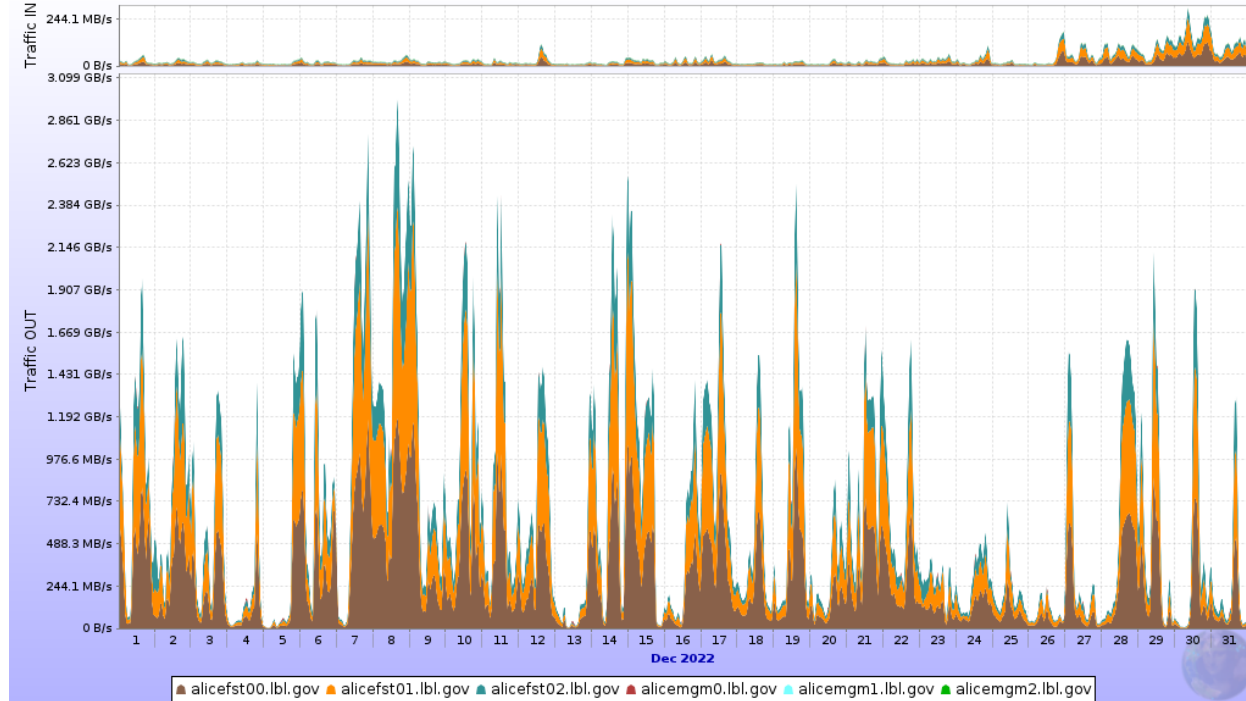
T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS06 x hr] (ML reporter)	CPU Delivered [MHS06 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	12.0	30.50	24.60	49.86	80.6	163.5
LBNL	16.7		22.02			
ORNL	11.5	30.50	24.12	32.12	79.1	105.3
Total		61.01	70.74	81.98	115.96%	134.38%

Network Traffic at LBL and ORNL

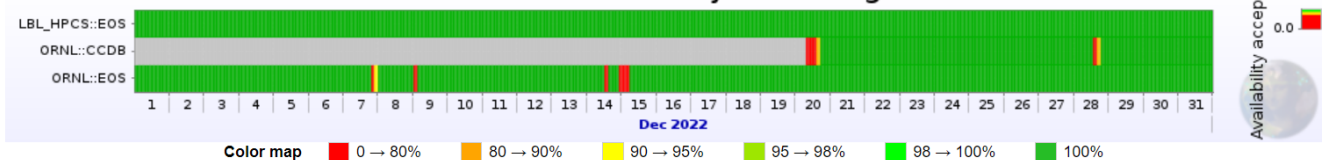
Network traffic on ALICE::ORNL::EOS



Network traffic on ALICE::LBL_HPCS::EOS

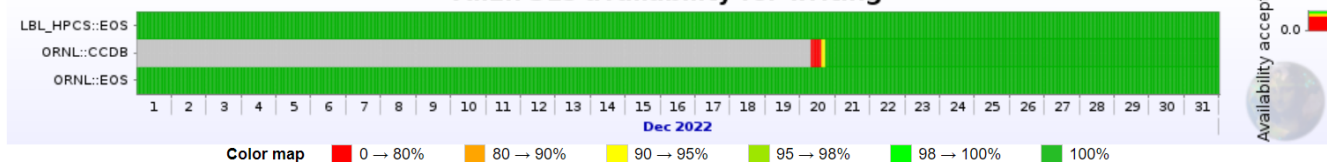


AliEn SEs availability for reading



Statistics						
Link name	Data		Individual results of reading tests			Overall Availability
	Starts	Ends	Successful	Failed	Success ratio	
LBL_HPCS::EOS	30 Nov 2022 23:07	31 Dec 2022 23:17	749	0	100%	100%
ORNL::CCDB	20 Dec 2022 08:37	01 Jan 2023 00:05	273	8	97.15%	97.15%
ORNL::EOS	30 Nov 2022 23:08	31 Dec 2022 23:18	742	7	99.07%	99.09%

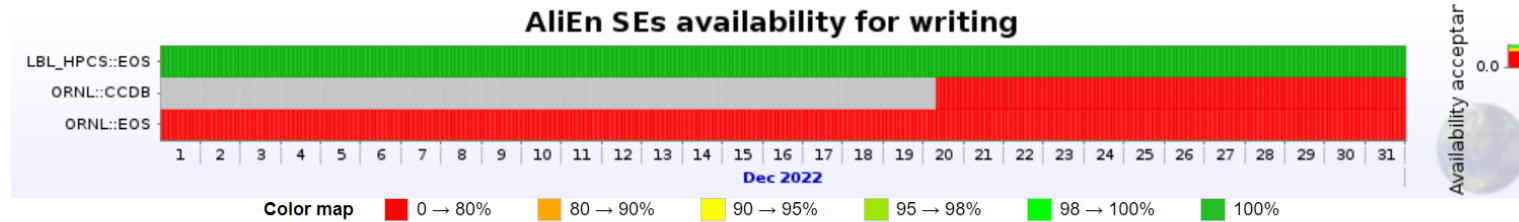
AliEn SEs availability for writing



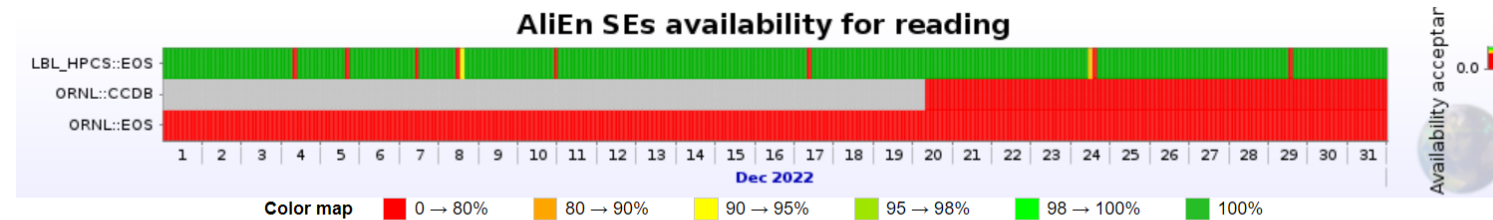
Statistics						
Link name	Data		Individual results of writing tests			Overall Availability
	Starts	Ends	Successful	Failed	Success ratio	
LBL_HPCS::EOS	01 Dec 2022 00:07	31 Dec 2022 23:17	748	0	100%	100%
ORNL::CCDB	20 Dec 2022 08:37	01 Jan 2023 00:05	274	7	97.51%	97.51%
ORNL::EOS	01 Dec 2022 00:08	31 Dec 2022 23:18	748	0	100%	100%

Storage-provided information						
SE Name	Size	Used	Free	Usage	Version	EOS Version
1. LBL_HPCS - EOS	2.741 PB	1.631 PB	1.11 PB	59.5%	Xrootd v4.12.8	4.8.89
2. ORNL - CCDB	-	-	-	-	Xrootd v4.12.8	
3. ORNL - EOS	2.693 PB	817.2 TB	1.895 PB	29.64%	Xrootd v4.12.8	4.8.40
Total	5.433 PB	2.429 PB	3.005 PB			

Using IPv6 Only



Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 Dec 2022 00:09	31 Dec 2022 23:17	748	0	100%	100%
ORNL::CCDB	20 Dec 2022 08:40	01 Jan 2023 00:08	0	281	0%	0%
ORNL::EOS	01 Dec 2022 00:10	31 Dec 2022 23:20	0	746	0%	0%



Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::EOS	01 Dec 2022 00:09	31 Dec 2022 23:17	740	8	98.93%	98.92%
ORNL::CCDB	20 Dec 2022 08:40	01 Jan 2023 00:08	0	281	0%	0%
ORNL::EOS	01 Dec 2022 00:10	31 Dec 2022 23:20	0	746	0%	0%

Site Status Dashboard

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 2.10.0.
LBL_HPCS alice-vobox.lbl.gov	Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking: No IPv6 public address

Last month

This month

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 2.10.0.
LBL_HPCS alice-vobox.lbl.gov	Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only Networking: No IPv6 public address
2 sites	5 issues

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	9434	68.94 %	50.80 Mb/s
FILE_OK	E_CATALOGUE_MD5_IS_BLANK	3	0.02 %	71.38 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	4094	29.92 %	
FILE_INACCESSIBLE	XROOTD_TIMED_OUT	1	0.01 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	153	1.12 %	
TOTAL		13685	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	19661	97.19 %	44.72 Mb/s
FILE_OK	E_CATALOGUE_MD5_IS_BLANK	345	1.71 %	50.55 Mb/s
FILE_INACCESSIBLE	XROOTD_EXITED_WITH_CODE	214	1.06 %	
FILE_CORRUPT	MD5_CHECKSUMS_DIFFER	10	0.05 %	
TOTAL		20230	100 %	