

ALICE-USA Operations

Monthly Status for April 2025

May 20, 2025



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report ALICE

April 2025

Federation Details

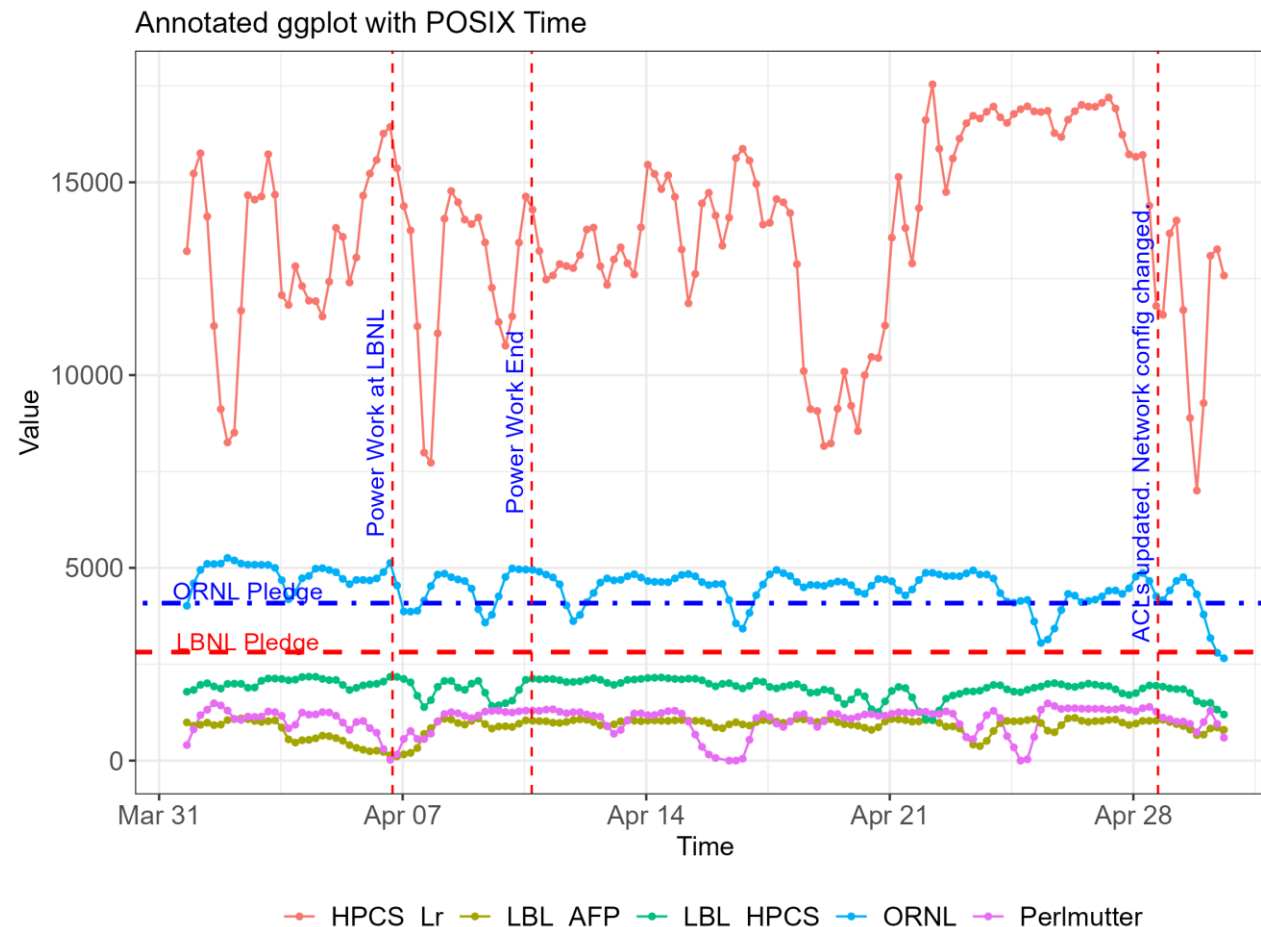
Availability Algorithm: @ALICE_CE * @ALICE_VOBOX * all AliEn-SE

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

Federation & Sites	Pledge CPU	Pledge Disk						
			Availability	Reliability	Unknown	Jan-2025	Feb-2025	Mar-2025
US-LBNL-ALICE	119700	13100						
LBL_HPCS			100%	100%	0%	89%	83%	93%
ORNL			96%	96%	0%	92%	100%	100%

Job Summary

- CEs
 - LBL-HPCS – **OK**
 - ORNL – **OK**
 - Daily oscillations
 - There was an update on this and new JAliEn should address the problem
 - We are running this custom JAliEn right now
 - Lawrenceium – **OK**
 - Perlmutter – **OK**
 - LBL_AFP – **OK**

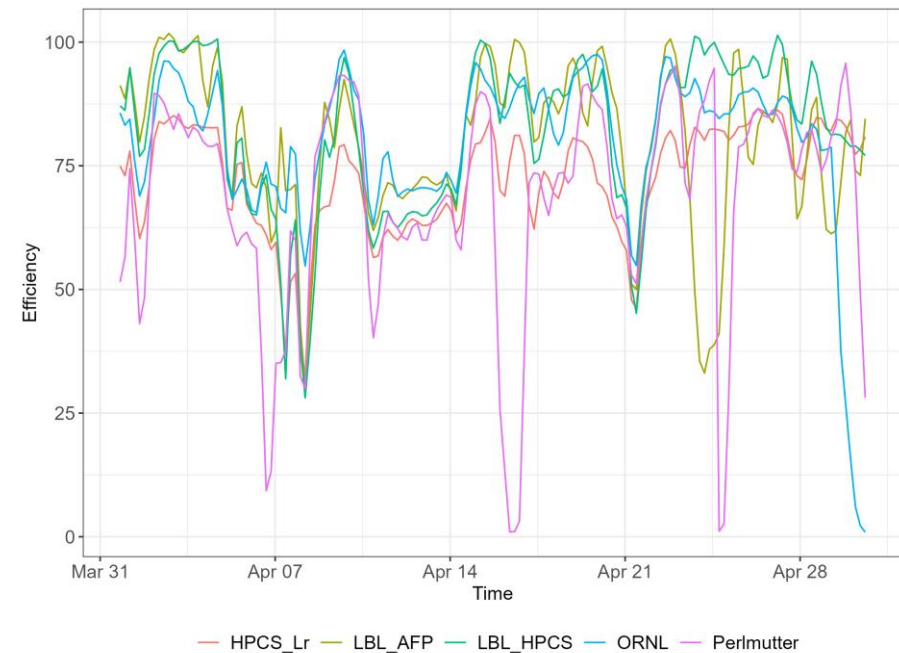


CPU Efficiency

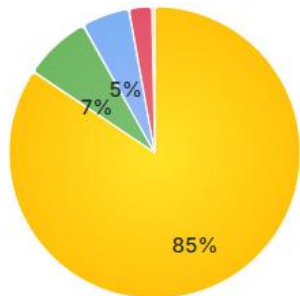
Target Efficiency is... no such thing anymore...

Jobs efficiency (cpu time / wall time)

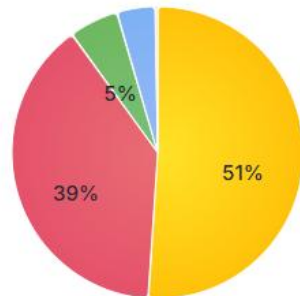
	Series	Last value	Min	Avg	Max
1.	 HPCS_Lr	86.65	2.225	77.72	160.1
2.	 LBL_AFP	39.85	0	73.29	111.9
3.	 LBL_HPCS	90.01	46.9	77.85	104.9
4.	 NIHAM	75.9	0	56.53	83.89
5.	 ORNL	91.88	64.74	85.56	94.83
6.	 Perlmutter	82.49	0.685	82.81	206.9
7.	 UPB	76.95	63.37	82.4	95.92
Total		77.68		76.59	



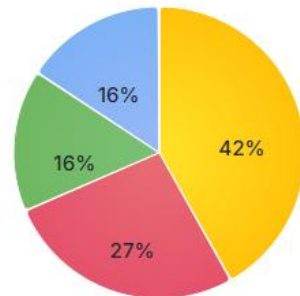
Average Job Mix [LBL_HPCS] ⓘ



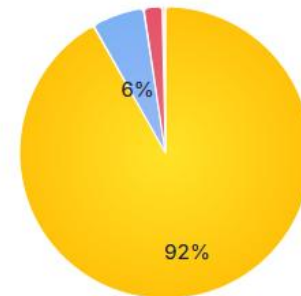
Average Job Mix [LBL_AFP] ⓘ



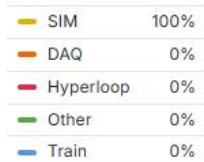
Average Job Mix [ORNL] ⓘ



Average Job Mix [HPCS_Lr] ⓘ

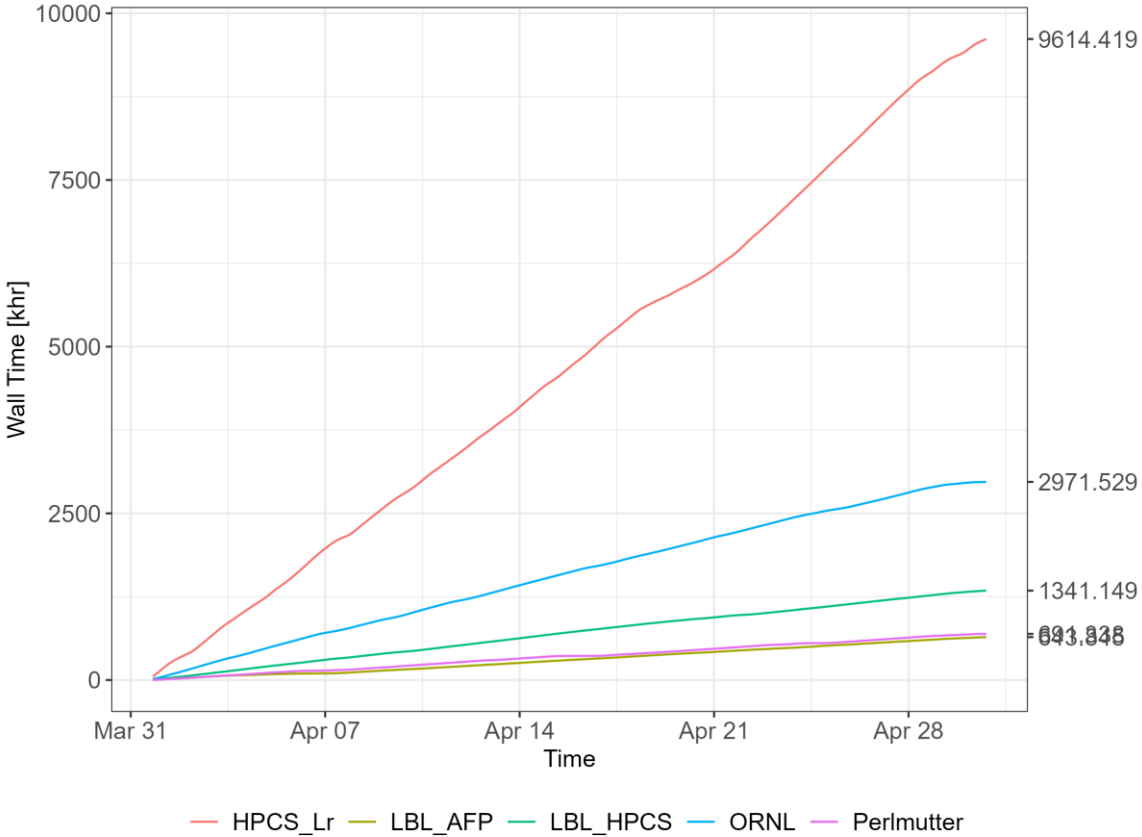


Average Job Mix [Perlmutter] ⓘ



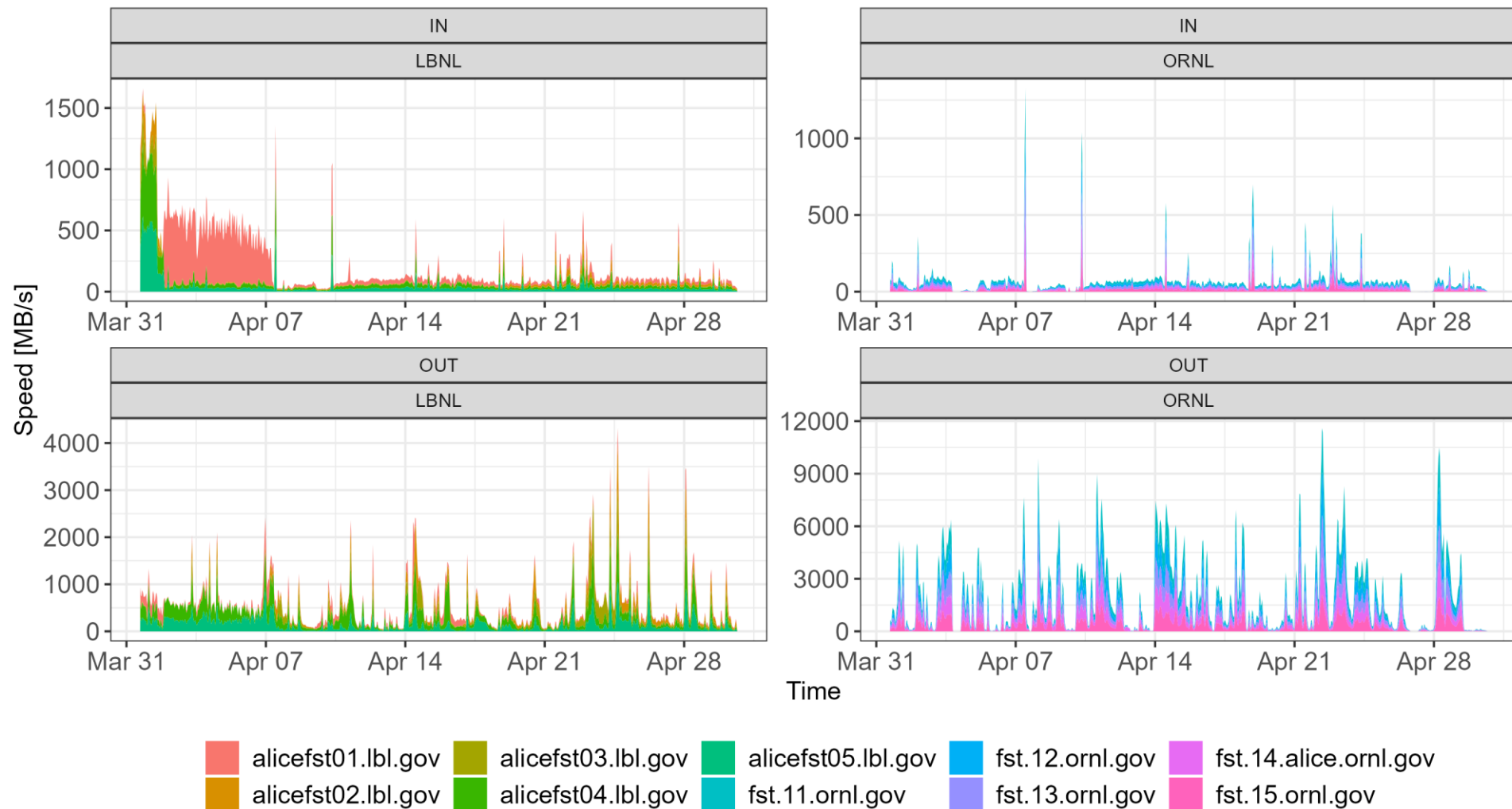
CPU Obligations	kHS23
ALICE-USA	116.8
LBNL HPCS T2	58.4
ORNL T2	58.4

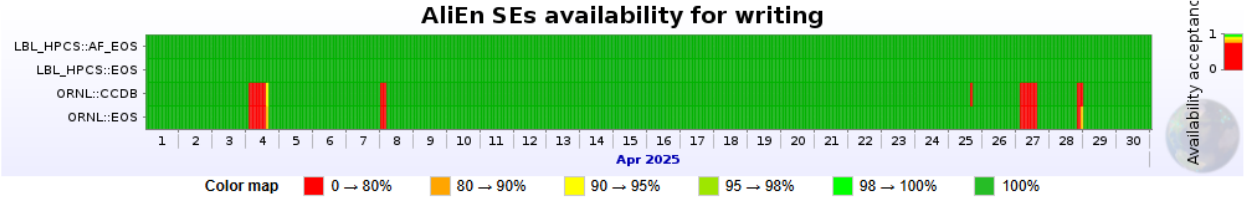
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	9614.00	35332.00	67.19
LBNL	1337.00		
AFP	643.00		
ORNL	2971.00	3560.00	16.54
Total	14,565.00	38,892.00	62.55



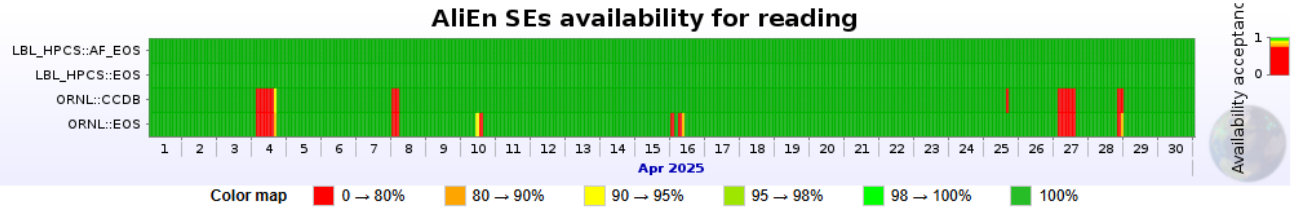
T2 Site and HPCS_Lr	CPU/Core [HS06/Core]	ALICE-USA Obligation [MHS06 x hr]	CPU Delivered [MHS23 x hr] (ML reporter)	CPU Delivered [MHS23 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	10.0	42.05	96.14	353.32	228.6	840.3
LBNL	12.0		16.04		38.2	
AFP	12.0		7.72		18.4	
ORNL	11.5	42.05	34.17	40.94	81.3	97.4
Total		84.10	154.07	394.26	183.20%	468.82%

Network Traffic at LBL and ORNL





Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
⚠ LBL_HPCS::AF_EOS	01 Apr 2025 00:30	01 May 2025 00:43	725	0	100%	100%
⚠ LBL_HPCS::EOS	01 Apr 2025 00:38	01 May 2025 00:52	724	0	100%	100%
⚠ ORNL::CCDB	01 Apr 2025 00:28	01 May 2025 00:42	698	27	96.28%	96.28%
⚠ ORNL::EOS	01 Apr 2025 00:39	01 May 2025 00:53	699	25	96.55%	96.55%

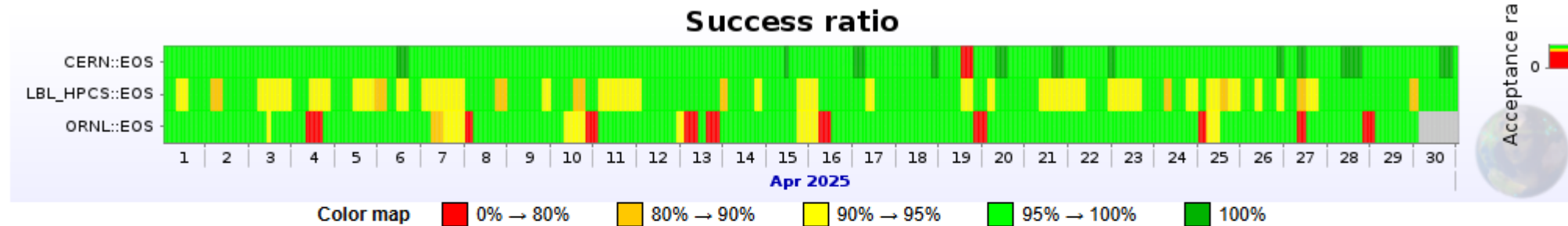


Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
⚠ LBL_HPCS::AF_EOS	01 Apr 2025 00:30	01 May 2025 00:43	725	0	100%	100%
⚠ LBL_HPCS::EOS	01 Apr 2025 00:38	01 May 2025 00:52	724	0	100%	100%
⚠ ORNL::CCDB	01 Apr 2025 00:28	01 May 2025 00:42	698	27	96.28%	96.28%
⚠ ORNL::EOS	01 Apr 2025 00:39	01 May 2025 00:53	696	28	96.13%	96.14%

AliEn SE			Catalogue statistics (1024-base units)						Storage-provided information (1024-base units)					
SE Name	AliEn name	Tier	Size	Used	Free	Usage	No. of files	Type	Size	Used	Free	Usage	Version	EOS Version
1. LBL_HPCS - AF_EOS	ALICE::LBL_HPCS::AF_EOS	2	1.092 PB	1008 TB	109.6 TB	90.2%	933,219	FILE	1.092 PB	1.001 PB	93.23 TB	91.67%	Xrootd 5.7.1-3.el8.x86_64	
2. LBL_HPCS - EOS	ALICE::LBL_HPCS::EOS	2	6.313 PB	3.667 PB	2.646 PB	58.09%	78,963,397	FILE	5.108 PB	3.098 PB	2.01 PB	60.65%	Xrootd 5.7.1	5.2.31
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	6.259 TB	93.74 TB	6.259%	17,211,750	FILE	-	-	-	-		
4. ORNL - EOS	ALICE::ORNL::EOS	2	6.586 PB	4.53 PB	2.056 PB	68.79%	63,818,217	FILE	6.586 PB	4.598 PB	1.988 PB	69.81%		5.3.0
Total			14.09 PB	9.189 PB	4.9 PB		160,926,583		12.79 PB	8.697 PB	4.089 PB			

EOS: Success Ratio

- So far no indication of file corruption / inaccessibility level increase



Averaged metrics for the selected interval						
SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 Apr 2025 02:50	30 Apr 2025 23:24	99.52 %	0.05 %	0.39 %	0.04 %
LBL_HPCS::EOS	01 Apr 2025 02:51	30 Apr 2025 17:17	95.41 %	1.01 %	3.58 %	0.00 %
ORNL::EOS	01 Apr 2025 02:51	29 Apr 2025 16:48	92.73 %	0.17 %	7.10 %	0.00 %

Site Status Dashboard

ORNL, LBL, HPCS_Lr, Perlmutter	
Site name	VOBox and SE problems
HPCS_Lr lrc-vobox.lbl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
ORNL vobox.alice.ornl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7. ALICE::ORNL::TEMP: ADD test fails since <i>31 Oct 2019 12:57</i> (for 5y 167d).
LBL_HPCS alice-vobox.lbl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
Perlmutter alice-sfapi.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 2.12.7.
LBL_AFP alice-afp.lbl.gov	Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
5 sites	13 issues

Last Month

This month

Site name	VOBox and SE problems
HPCS_Lr lrc-vobox.lbl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
ORNL vobox.alice.ornl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7. ALICE::ORNL::TEMP: ADD test fails since <i>31 Oct 2019 12:57</i> (for 5y 202d).
LBL_HPCS alice-vobox.lbl.gov	ALICE::LBL_HPCS::EOS redirector ALICE::LBL_HPCS::EOS doesn't see all nodes, only 5.108 PB out of 6.313 PB total space is connected Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
LBL_AFP alice-afp.lbl.gov	Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.12.7.
Perlmutter alice-sfapi.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 2.12.7.
5 sites	14 issues