

ALICE-USA Operations

Monthly Status for March 2025

April 15, 2025



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report

ALICE

March 2025

Federation Details

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

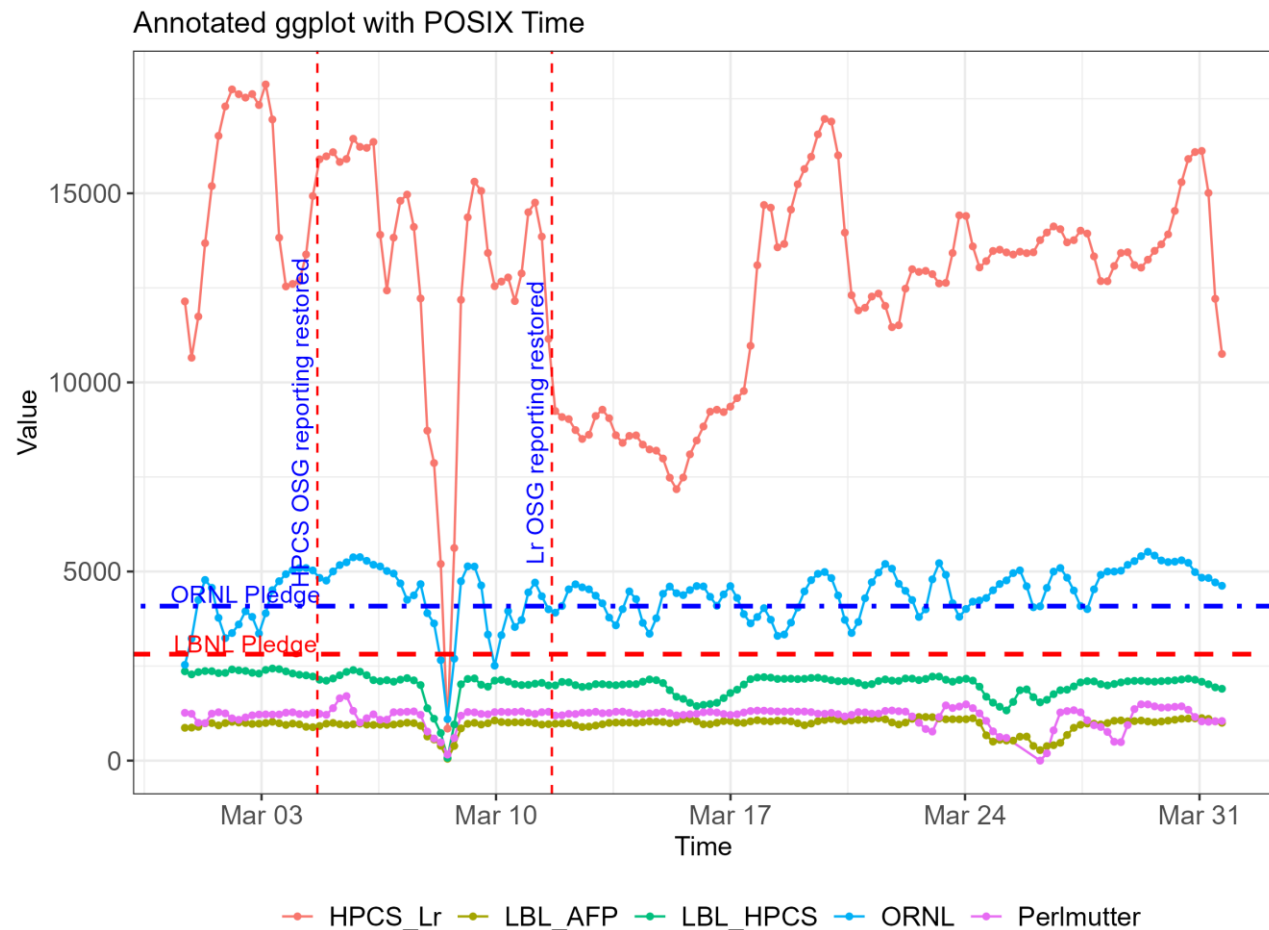
Color coding: N/A <30% <60% <90% >=90%

Availability History

Federation & Sites	Pledge CPU	Pledge Disk	Availability	Reliability	Unknown	Dec-2024	Jan-2025	Feb-2025
US-LBNL-ALICE	100900	10900						
LBL_HPCS			93%	93%	1%	33%	89%	83%
ORNL			100%	100%	0%	85%	92%	100%

Job Summary

- CEs
 - LBL-HPCS – **OK**
 - ORNL – **OK**
 - Daily oscillations need to be understood
 - Logs were provided to Marta
 - Lawrenceium – **OK**
 - Perlmutter – **OK**
 - LBL_AFP – **OK**

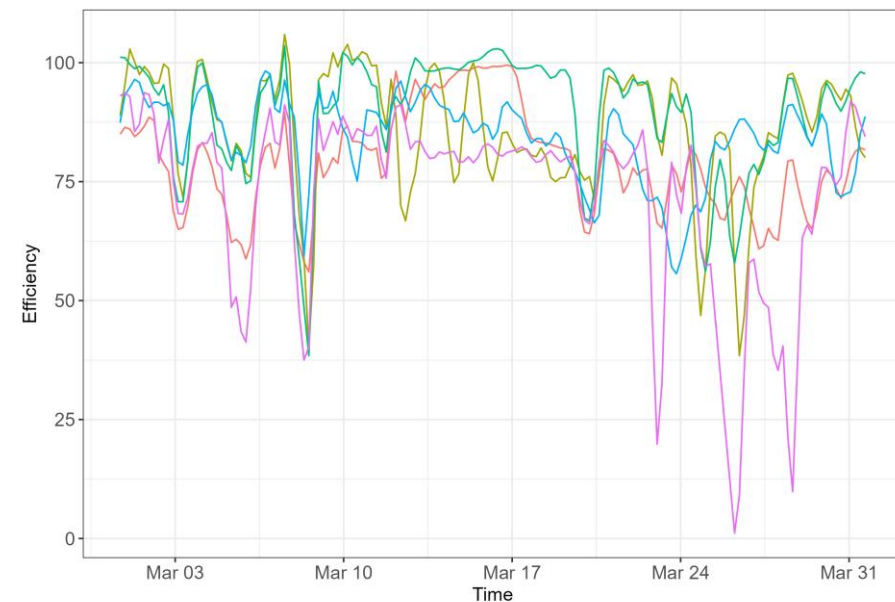


CPU Efficiency

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

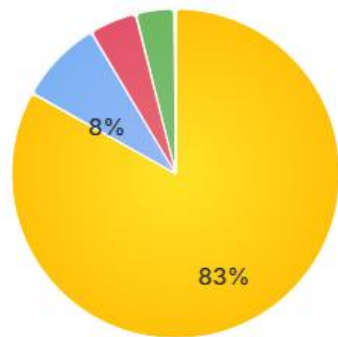
Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	81.77	0	79.18	121.4
2.	LBL_AFP	84.56	0	86.35	170.8
3.	LBL_HPCS	97.08	0	89.39	173.7
4.	NIHAM	68.67	0	85.51	108.5
5.	ORNL	89.24	29.49	84.24	117.7
6.	Perlmutter	87.44	0	73.26	193.4
7.	UPB	88	4.967	83.97	119.1
Total		85.25		83.13	

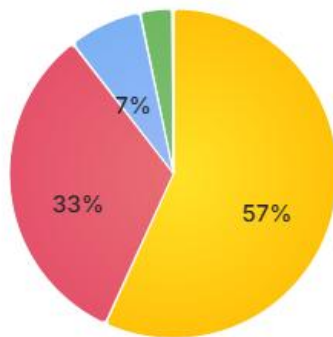


HPCS_Lr LBL_AFP LBL_HPCS ORNL Perlmutter

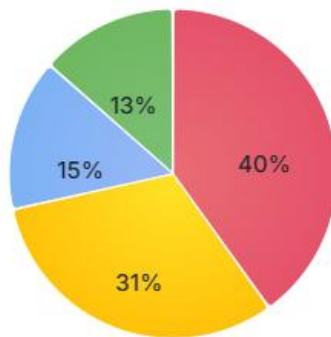
Average Job Mix [LBL_HP...



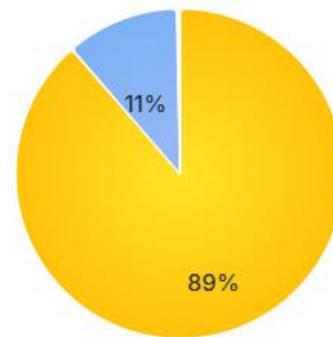
Average Job Mix [LBL_AFP]



Average Job Mix [ORNL]



Average Job Mix [HPCS_Lr]



Average Job Mix [Perlmutter]

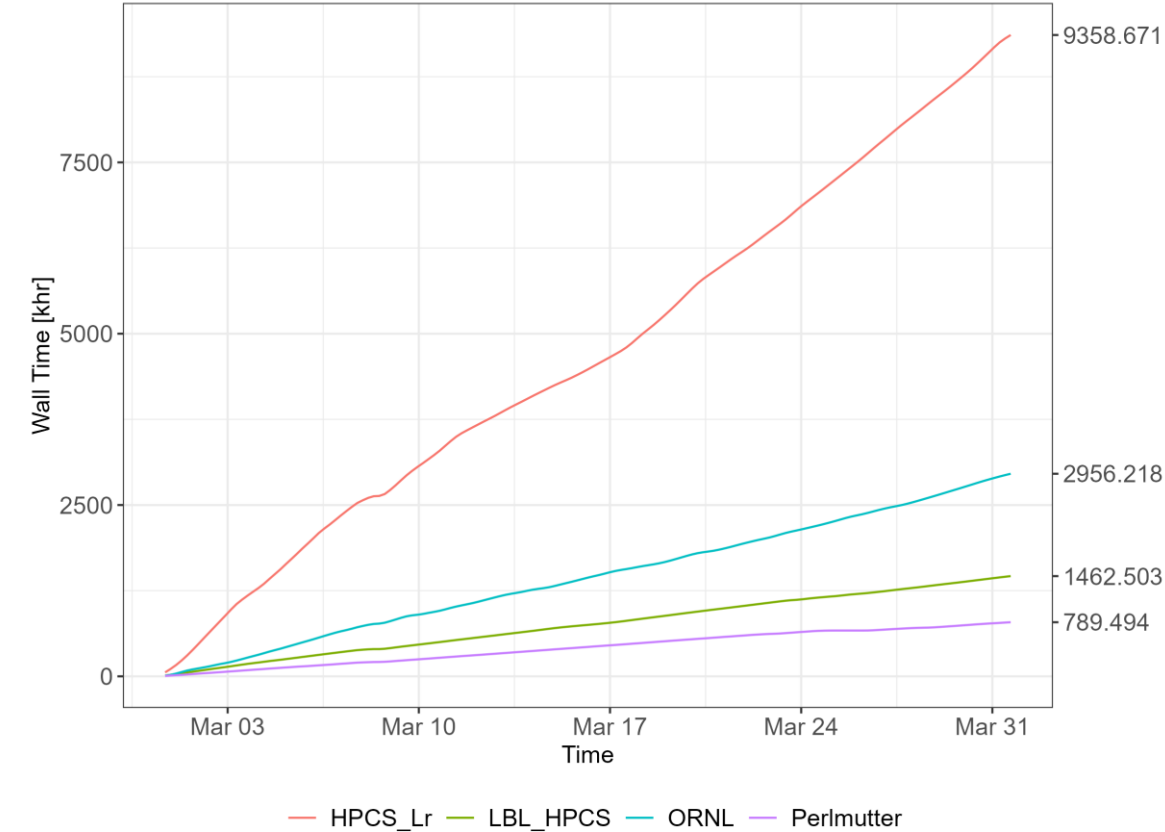


SIM 100%
Hyperloop 0%
DAQ 0%
Train 0%
Other 0%

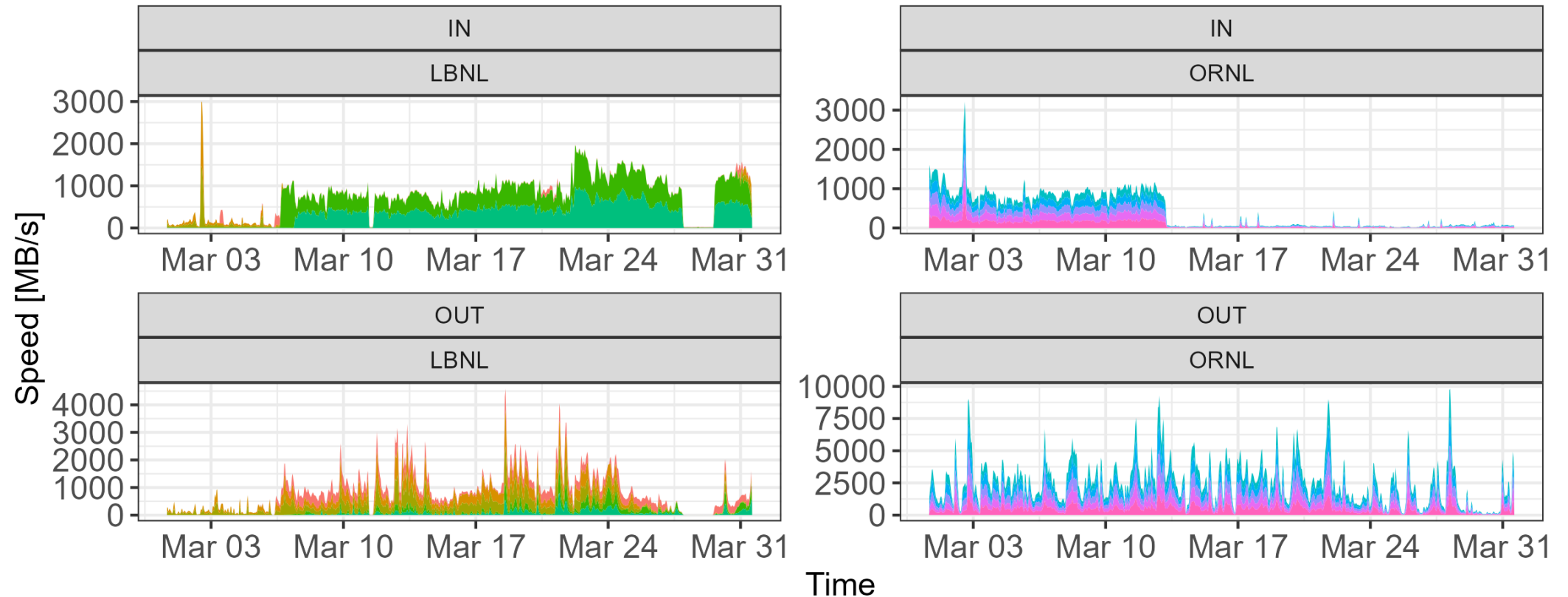
CPU Obligations		kHS06
ALICE-USA		100.9
LBNL HPCS T2		50.45
ORNL T2		50.45

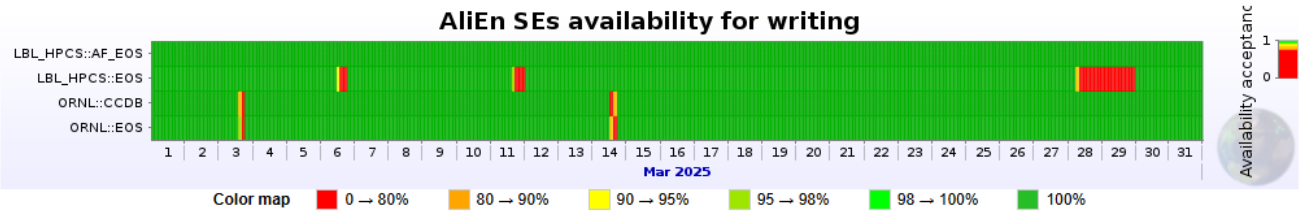
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	9353.70	24331.00	52.30
LBNL	1462.50		
AFP	789.50		
ORNL	2956.20	3132.00	5.61
Total	14,561.90	27,463.00	46.98

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	37.53	93.54	243.31	249.2	648.2
LBNL	12.0		17.55		46.8	
AFP	12.0		9.47		25.2	
ORNL	11.5	37.53	34.00	36.02	90.6	96.0
Total		75.07	154.56	279.33	205.89%	372.09%

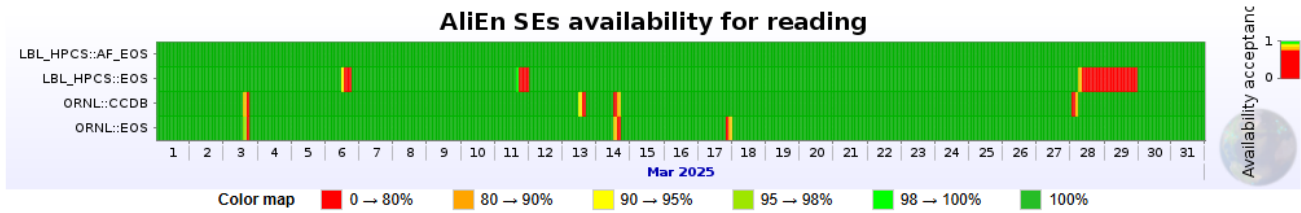


Network Traffic at LBL and ORNL





Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	28 Feb 2025 23:29	31 Mar 2025 23:30	757	0	100%	100%
LBL_HPCS::EOS	28 Feb 2025 23:37	31 Mar 2025 23:38	703	51	93.24%	93.19%
ORNL::CCDB	28 Feb 2025 23:27	31 Mar 2025 23:28	756	2	99.74%	99.74%
ORNL::EOS	28 Feb 2025 23:37	31 Mar 2025 23:39	751	2	99.73%	99.74%

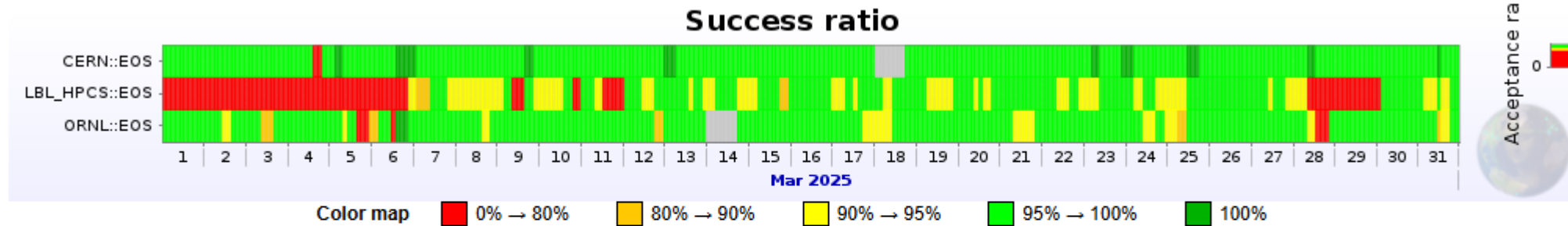


Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	28 Feb 2025 23:29	31 Mar 2025 23:30	757	0	100%	100%
LBL_HPCS::EOS	28 Feb 2025 23:37	31 Mar 2025 23:38	703	51	93.24%	93.21%
ORNL::CCDB	28 Feb 2025 23:27	31 Mar 2025 23:28	754	4	99.47%	99.48%
ORNL::EOS	28 Feb 2025 23:38	31 Mar 2025 23:39	749	3	99.60%	99.61%

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%	933,221	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	2.691 PB	3.622 PB	42.63%	74,835,922	FILE	6.304 PB	2.858 PB	3.446 PB	45.34%	Xrootd 5.7.1	5.2.31
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	6.075 TB	93.92 TB	6.075%	16,807,124	FILE	-	-	-	-		
4. ORNL - EOS	ALICE::ORNL::EOS	2	6.586 PB	4.504 PB	2.082 PB	68.39%	63,480,244	FILE	6.586 PB	4.603 PB	1.983 PB	69.9%		5.3.0
Total			14.09 PB	8.186 PB	5.902 PB		156,056,511		13.98 PB	8.462 PB	5.52 PB			

EOS: Success Ratio

- Fst01 seems to have been a culprit for the file access issues at LBNL



Averaged metrics for the selected interval						
SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 Mar 2025 04:00	31 Mar 2025 20:55	99.47 %	0.03 %	0.45 %	0.05 %
LBL_HPCS::EOS	01 Mar 2025 04:02	31 Mar 2025 20:46	83.89 %	0.47 %	15.63 %	0.02 %
ORNL::EOS	01 Mar 2025 04:02	31 Mar 2025 20:52	96.95 %	0.14 %	2.89 %	0.02 %

Site Status Dashboard

Site name	VOBox and SE problems
ORNL vobox.alice.ornl.gov	Networking: low buffer size kernel parameters: wmem_max=208 KB only Networking: No IPv6 public address
HPCS_Lr lrc-vobox.lbl.gov	Networking: No IPv6 public address
LBL_HPCS alice-vobox.lbl.gov	Networking: No IPv6 public address
LBL_AFP alice-afp.lbl.gov	Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address
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 2.11.5.
5 sites	9 issues

Last Month

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 31 Oct 2019 12:57 (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

This month