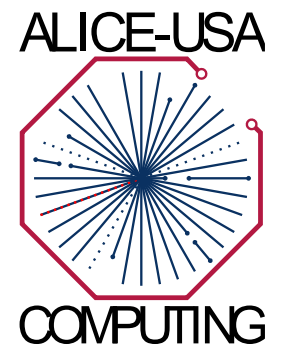


ALICE-USA Operations Monthly Status for October 2024

November 19, 2024



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report ALICE

September 2024

Federation Details

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

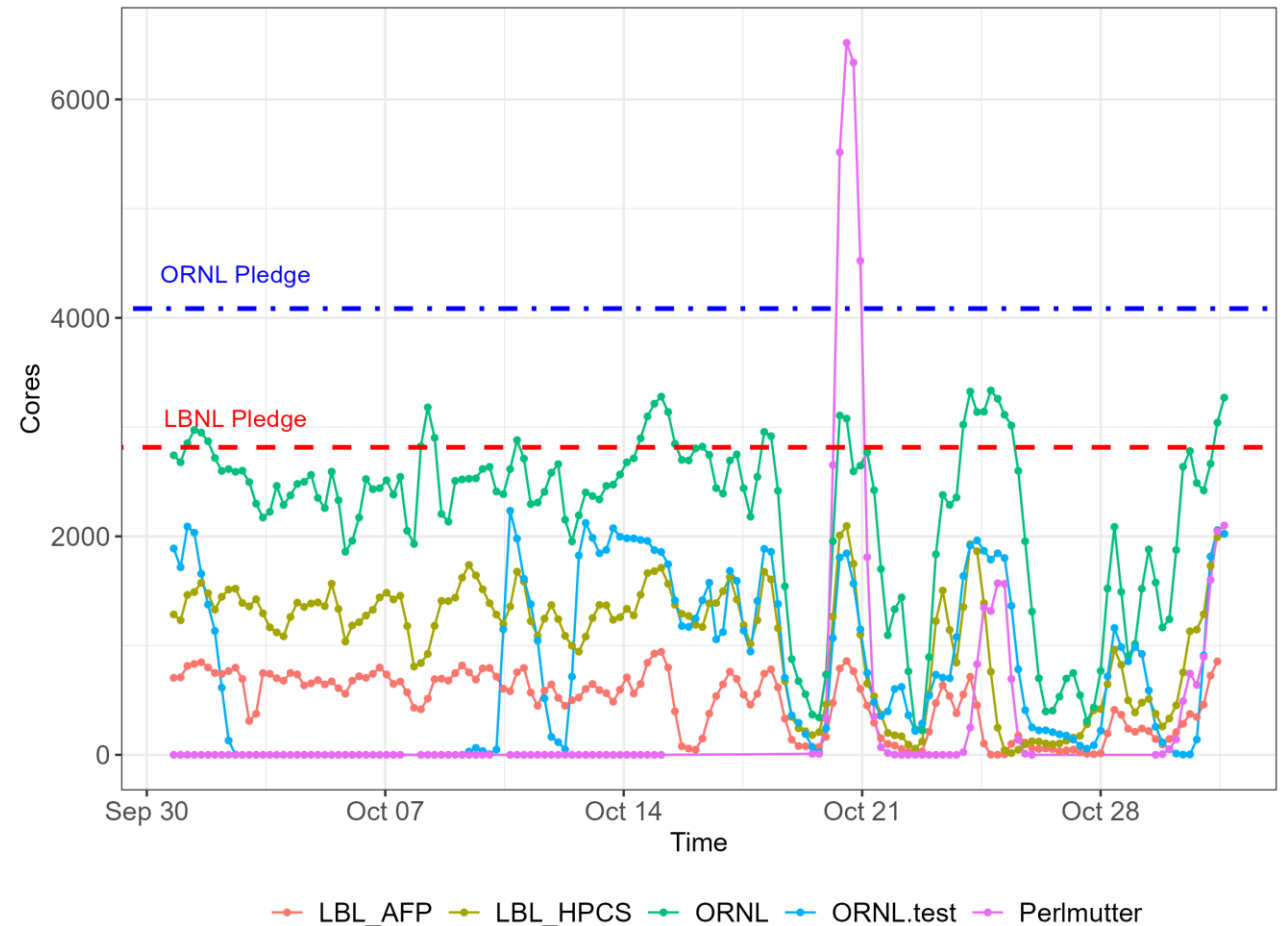
Color coding: N/A <30% <60% <90% >=90%

Availability History

Federation & Sites	Pledge CPU	Pledge Disk	Availability	Reliability	Unknown	Jun-2024	Jul-2024	Aug-2024
US-LBNL-ALICE	100900	10900						
LBL_HPCS			85%	85%	0%	87%	45%	73%
ORNL			99%	99%	0%	90%	99%	97%

Job Summary

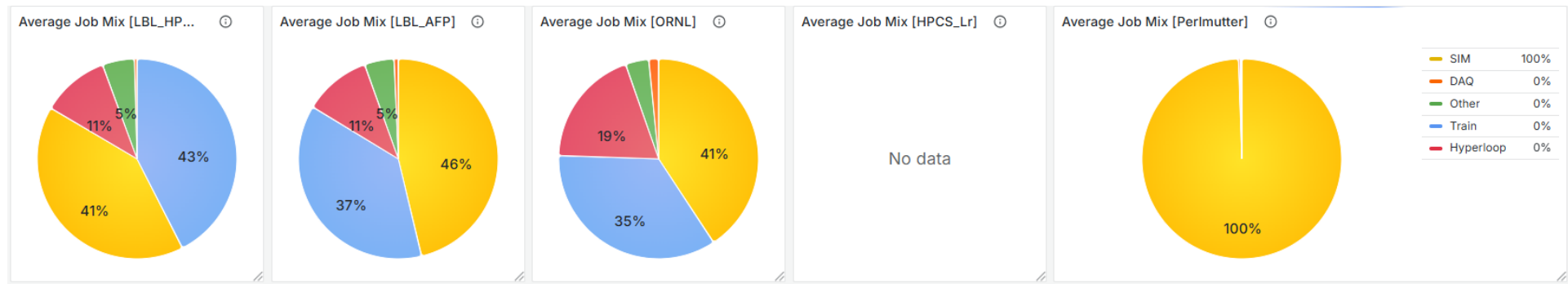
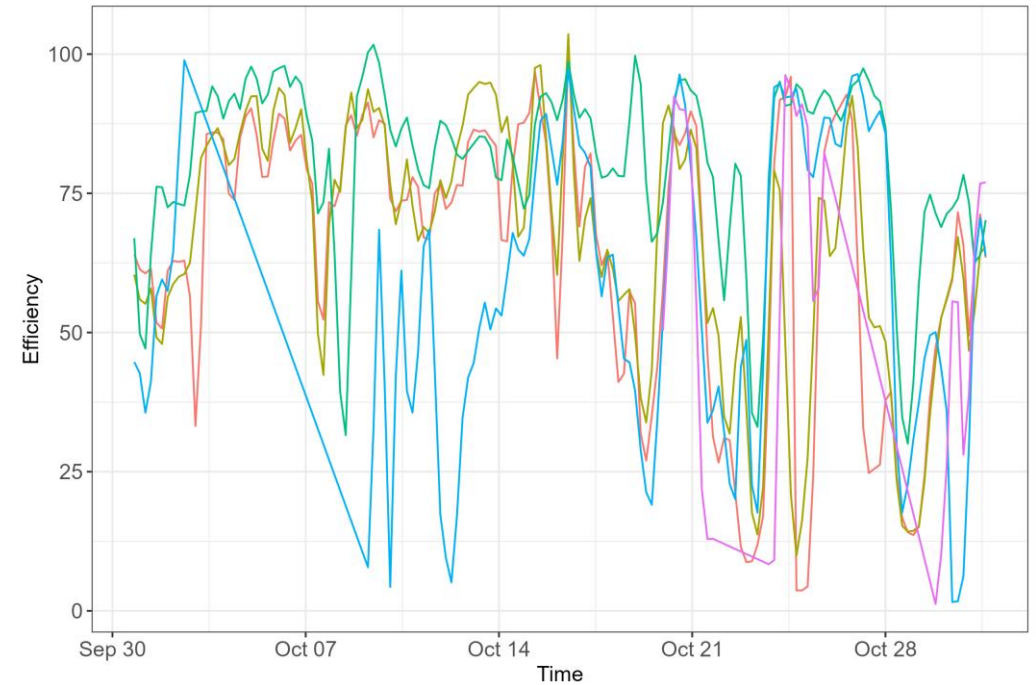
- CEs
 - LBL-HPCS – **OK**
 - ORNL – **OK**
 - Old and new clusters need to be merged
 - Total current ORNL capacity satisfies the half of the US pledge (keeping the old nodes)
 - ORNL-test
 - This will become ORNL once the old WNs join it
 - Lawrencium - **OUT**
 - Perlmutter – **OK**
 - Some very large allocations followed by the very low period
 - LBL_AFP - **OK**



CPU Efficiency

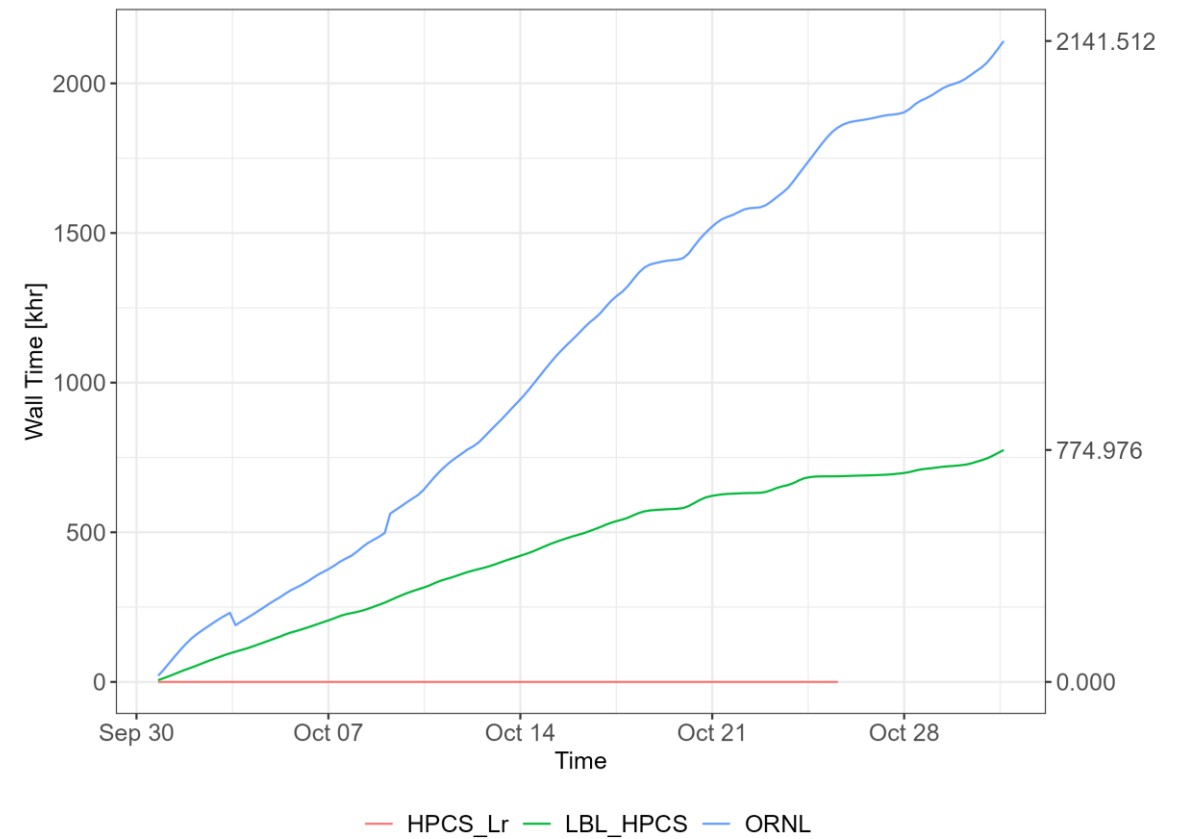
Target Efficiency is... no such thing anymore...

Jobs efficiency (cpu time / wall time)					
	Series	Last value	Min	Avg	Max
1.	■ LBL_AFP	60.69	0	63.56	119.1
2.	■ LBL_HPCS	61.92	0	66.36	185.8
3.	■ NIHAM	48.38	4.955	58.03	138.1
4.	■ ORNL	72.09	2.291	80.82	155.8
5.	■ ORNL-test	64.61	0.049	56.72	134.5
6.	■ Perlmutter	75.56	0	55.91	122.5
7.	■ UPB	64.4	10.99	71.91	128.1
Total		63.95		64.76	



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

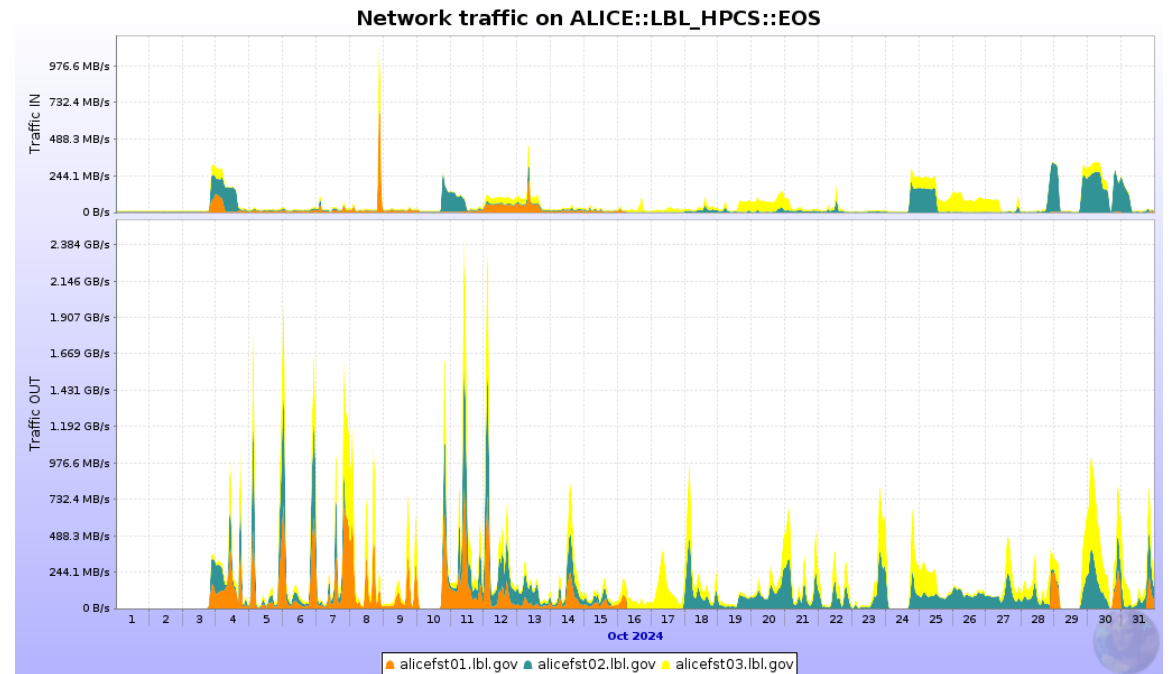
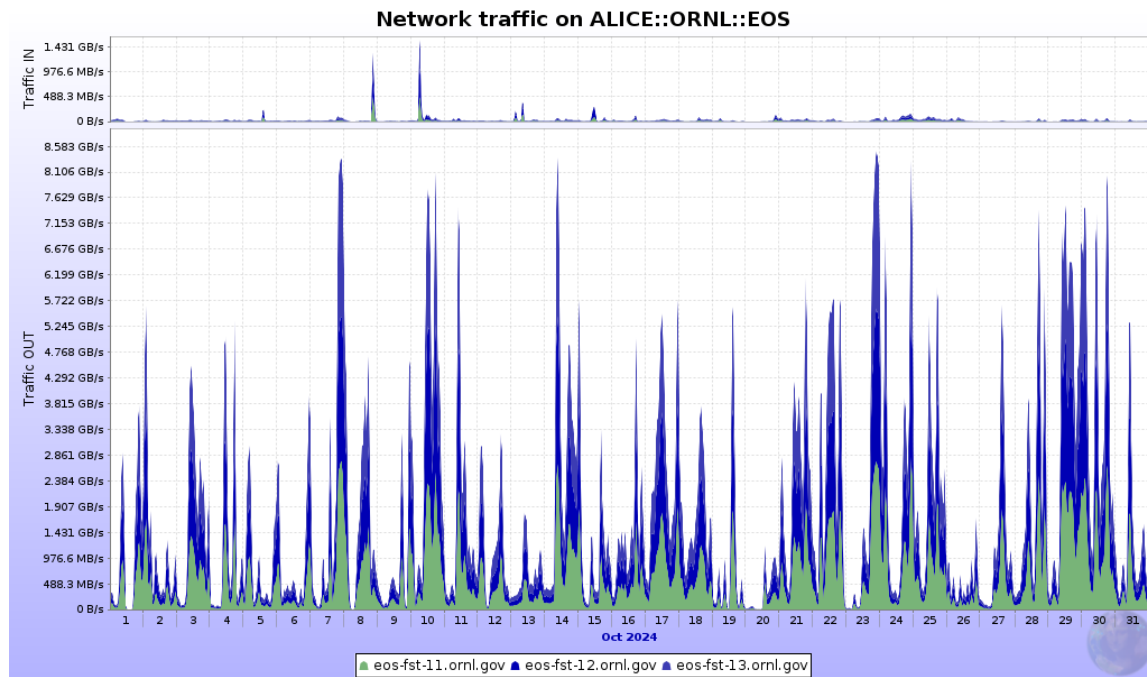
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	0.00	1500.00	48.33
LBNL	775.00		
ORNL	2141.50	3338.30	35.85
Total	2,916.50	4,838.30	39.72



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	12.0	37.53	0.00	18.00	0.0	48.0
LBNL	16.7		12.94		34.5	
ORNL	11.5	37.53	24.63	38.39	65.6	102.3
Total		75.07	37.57	56.39	50.05%	75.12%

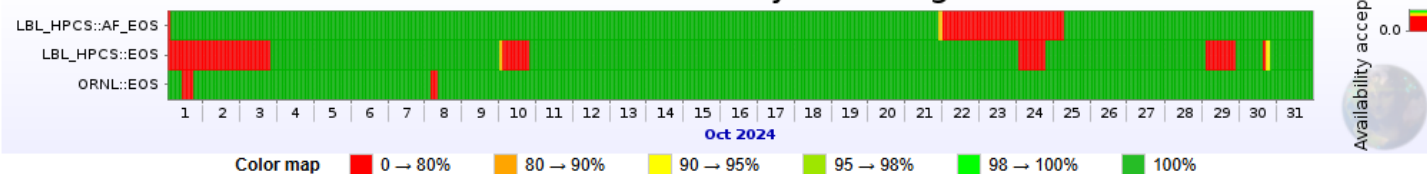
N.B. We do not run accounting on Perlmutter & AFP. Including these we provided over 100% this month.

Network Traffic at LBL and ORNL



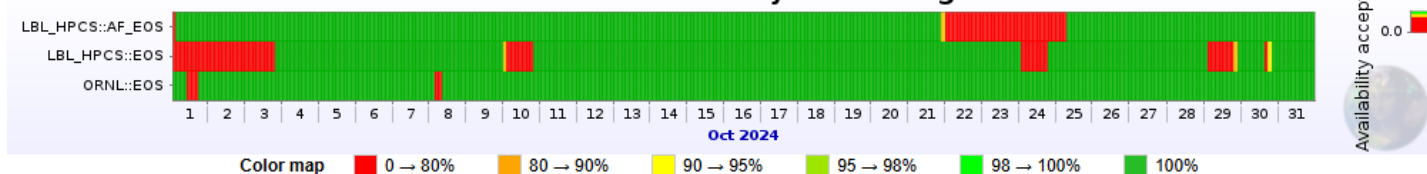
- alicefst01 seems to have some problems
- John has replaced part on one of the two problematic fst's (is alicefst01 the other one?)

AliEn SEs availability for writing



Statistics						
Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	01 Oct 2024 00:24	31 Oct 2024 23:08	665	80	89.26%	89.23%
LBL_HPCS::EOS	01 Oct 2024 00:31	31 Oct 2024 23:17	629	115	84.54%	84.51%
ORNL::EOS	01 Oct 2024 00:31	31 Oct 2024 23:17	733	10	98.65%	98.67%

AliEn SEs availability for reading

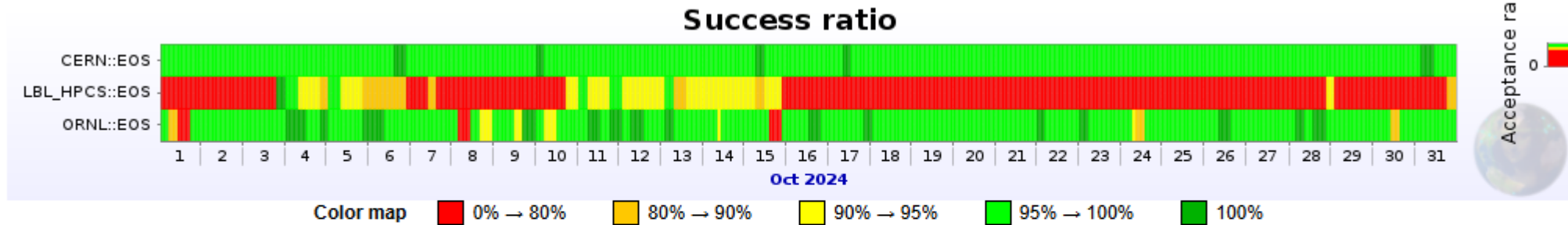


Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	01 Oct 2024 00:25	31 Oct 2024 23:08	665	80	89.26%	89.24%
LBL_HPCS::EOS	01 Oct 2024 00:31	31 Oct 2024 23:17	629	115	84.54%	84.51%
ORNL::EOS	01 Oct 2024 00:32	31 Oct 2024 23:17	733	10	98.65%	98.67%

SE Name	AliEn SE		Catalogue statistics (1024-base units)						Storage-provided information (1024-base units)					
	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	817.8 TB	300.8 TB	73.11%	680,321	FILE	1.092 PB	833.9 TB	284.7 TB	74.55%	Xrootd 5.6.10-1.el8.x86_64	
2. LBL_HPCS - EOS	ALICE::LBL_HPCS::EOS	2	3.48 PB	2.95 PB	542.1 TB	84.78%	66,813,653	FILE	2.373 PB	2.114 PB	265.6 TB	89.07%	Xrootd 5.6.10	5.2.24
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	5.744 TB	94.26 TB	5.744%	15,256,097	FILE	-	-	-	-		
4. ORNL - EOS	ALICE::ORNL::EOS	2	3.964 PB	2.762 PB	1.202 PB	69.67%	58,213,581	FILE	3.964 PB	2.833 PB	1.131 PB	71.47%		5.2.28
5. ORNL - PRF_EOS	ALICE::ORNL::PRF_EOS	2	807.7 TB	243 TB	564.7 TB	30.09%	120,226	FILE	807.7 TB	248.7 TB	559 TB	30.79%		5.1.14
Total			9.422 PB	6.753 PB	2.669 PB		141,083,878		8.218 PB	6.004 PB	2.214 PB			

EOS: Success Ratio

- ORNL extremely well performant
- John has worked on solving the mgm/fst hardware problems
 - It seems EOS is not able to diagnose and address the issues we are having with the rocky8 OS
 - We need to consider the potential solution to this problem.



Averaged metrics for the selected interval						
SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 Oct 2024 06:48	31 Oct 2024 19:21	99.75 %	0.01 %	0.21 %	0.03 %
LBL_HPCS::EOS	01 Oct 2024 06:49	31 Oct 2024 20:00	60.27 %	0.71 %	39.02 %	0.00 %
ORNL::EOS	01 Oct 2024 00:45	31 Oct 2024 19:26	96.70 %	0.10 %	3.20 %	0.00 %

Site Status Dashboard

ORNL, LBL, HPCS_Lr, Perlmutter	
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 (2.11.2), please upgrade to 2.11.5.
LBL_HPCS alice-vobox.lbl.gov	Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.3), please upgrade to 2.11.5. ALICE::LBL_HPCS::AF_EOS: xrootd data server ib-mgm00.aliceaf0 fails ADD test.
ORNL-test vobox.alice.ornl.gov	Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only 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.
HPCS_Lr lrc-vobox.lbl.gov	Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.3), please upgrade to 2.11.5.
6 sites	16 issues

Last Month

ORNL, LBL, HPCS_Lr, Pe	
Site name	VOBox and SE problems
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.
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 (2.11.2), please upgrade to 2.11.5.
LBL_HPCS alice-vobox.lbl.gov	ALICE::LBL_HPCS::EOS redirector ALICE::LBL_HPCS::EOS doesn't see all nodes, only 2.373 PB out of 3.48 PB total space is connected Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB Networking: No IPv6 public address
ORNL-test vobox.alice.ornl.gov	Networking: low buffer size kernel parameters: tcp_wmem_max=4 MB only 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
HPCS_Lr lrc-vobox.lbl.gov	MonALISA service is not online since 25 Oct 2024 20:53 (for 21d 4:25). Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.3), please upgrade to 2.11.5.
6 sites	16 issues

This month