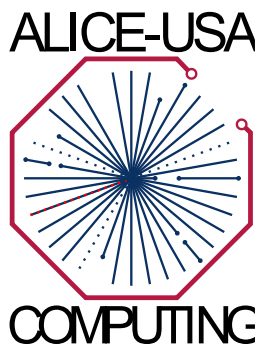


# ALICE-USA Operations

## Monthly Status for July 2025

August 19, 2025



# Availability and Reliability Reports

## ALICE\_CE(Jobs Running) x ALICE\_VOBOX x AliEn::SE(tests)



### Tier-2 Availability and Reliability Report

#### ALICE

#### Federation Details

July 2025

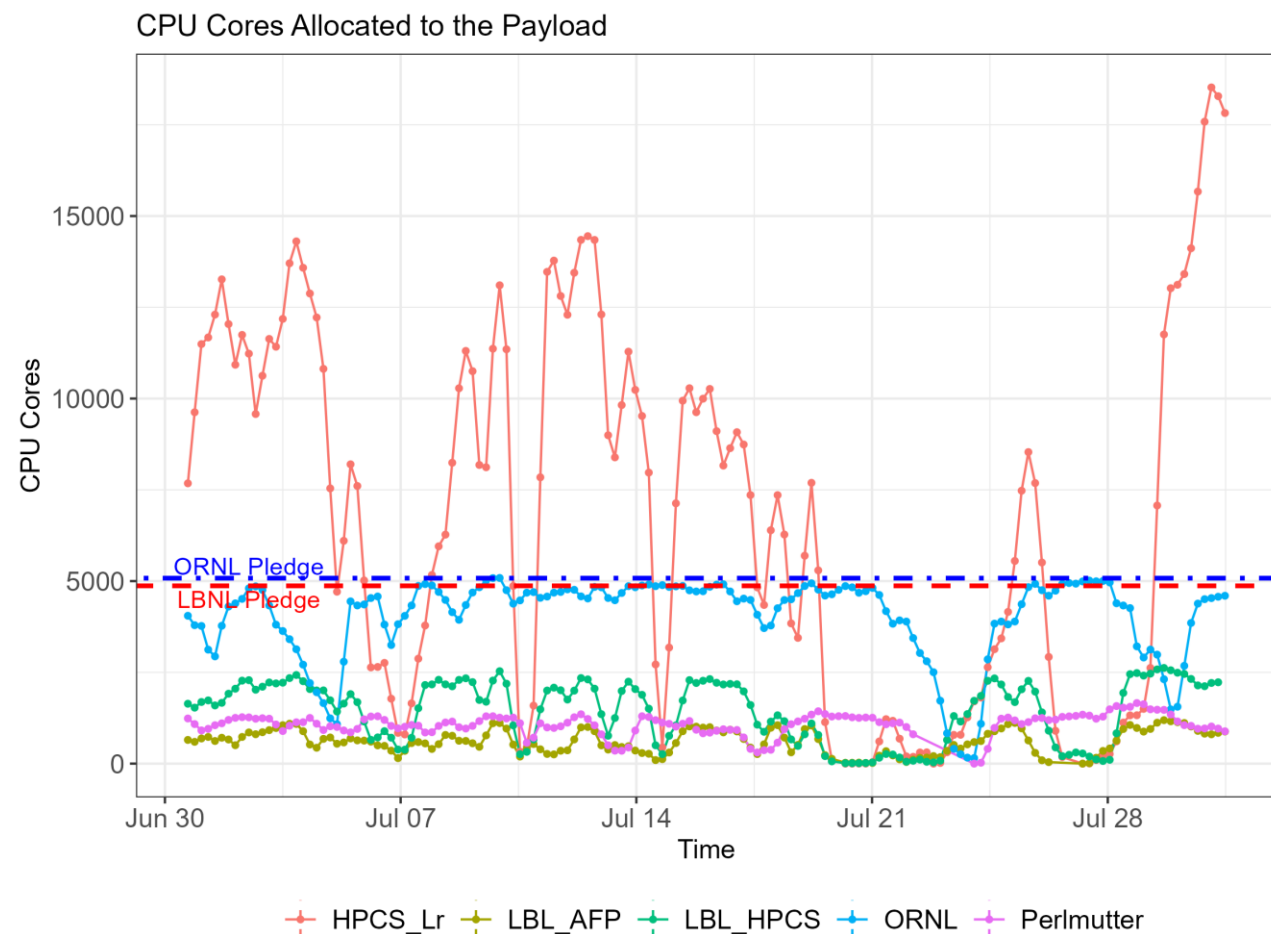
Availability Algorithm: @ALICE\_CE \* @ALICE\_VOBOX \* all AliEn-SE

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

Federation & Sites								Availability History		
	Pledge CPU	Pledge Disk	Availability	Reliability	Unknown	Apr-2025	May-2025	Jun-2025		
<b>US-LBNL-ALICE</b>	<b>119700</b>	<b>13100</b>								
LBL_HPCS			100%	100%	0%	100%	93%	84%		
ORNL			97%	97%	0%	96%	83%	98%		

# Job Summary

- CEs
  - LBL-HPCS
    - Scratch system problems affected us - SOLVED
    - Strange condor-ce problem with querying wrong schedd - SOLVED
  - ORNL - **OK**
    - Strange behaviour of condor, cancelling some jobs. But it is only cancelling pilots and only sometimes, so overall performance is stable
      - Work in progress with improvements
  - Lawrenceium
    - Scratch system problems affected us - SOLVED
    - Strange condor-ce problem with querying wrong schedd - SOLVED
  - Perlmutter
    - A lot of job failures.
    - NERSC suspects bug in Luster, but we need to look into it and understand
      - solved
  - LBL\_AFP
    - Scratch system problems affected us - SOLVED
    - Strange condor-ce problem with querying wrong schedd - SOLVED



# CPU Efficiency

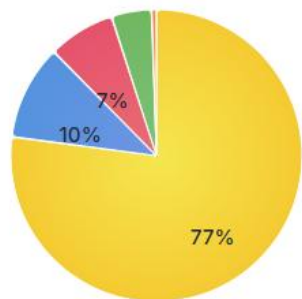
Target Efficiency is... no such thing anymore...

**Jobs efficiency (cpu time / wall time)**

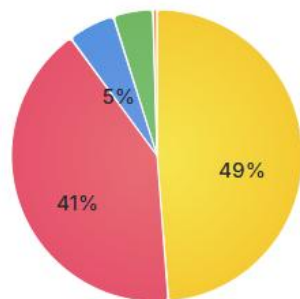
	Series	Last value	Min	Avg	Max
1.	HPCS_Lr	83.91	0.851	69.9	127.7
2.	LBL_AFP	100.9	0	83	180.7
3.	LBL_HPCS	91.68	0.084	81.6	199.8
4.	NIHAM	84.03	0	86.08	109.3
5.	ORNL	92.29	0.007	88.48	131
6.	Perlmutter	82.53	0.648	75.06	245.8
7.	UPB	81.68	10.76	84.82	108.2
Total		88.15		81.28	



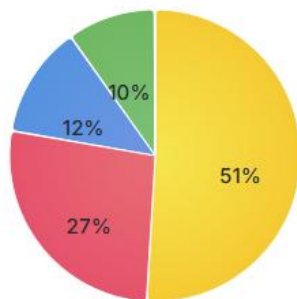
Average Job Mix [LBL\_HPCS]



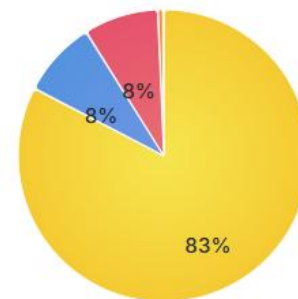
Average Job Mix [LBL\_AFP]



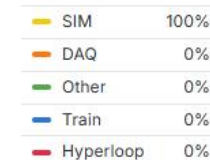
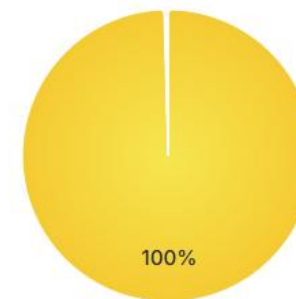
Average Job Mix [ORNL]



Average Job Mix [HPCS\_Lr]

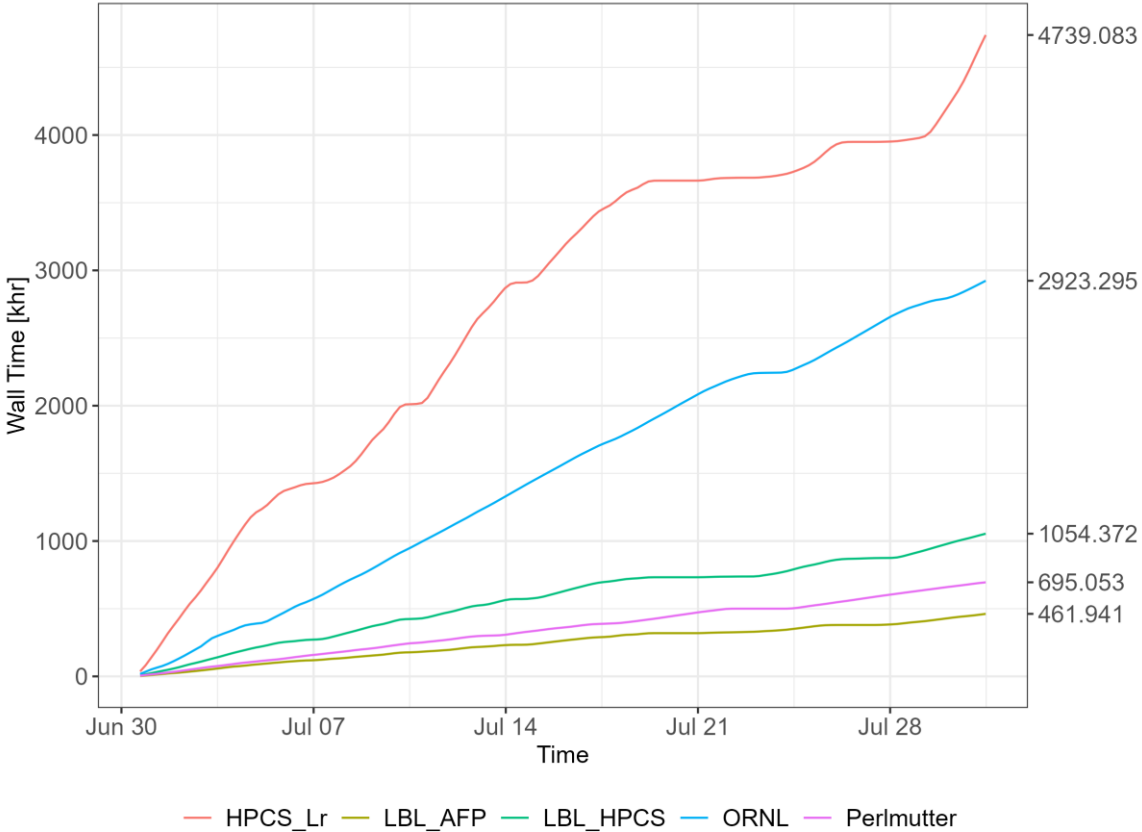


Average Job Mix [Perlmutter]



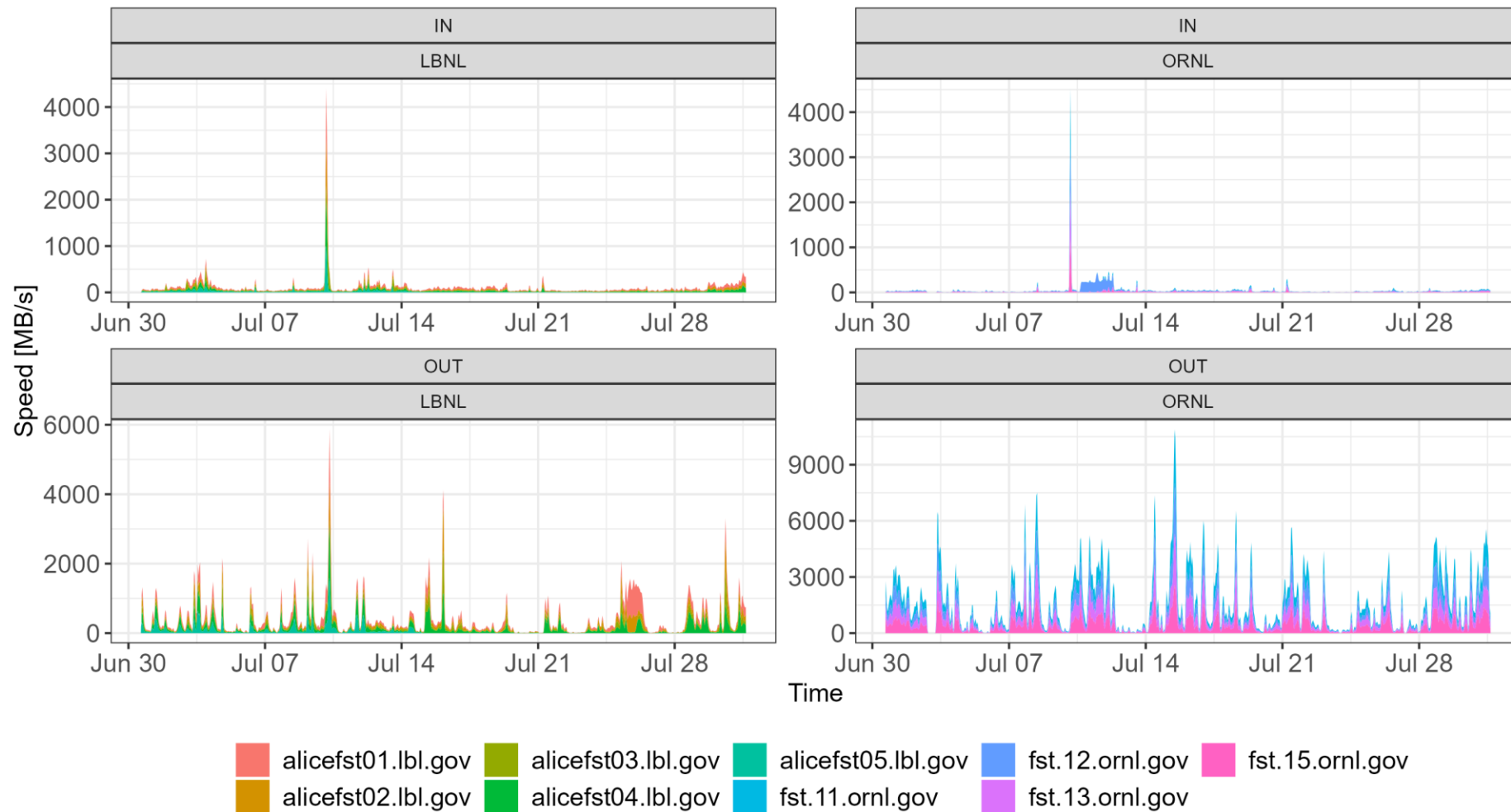
CPU Obligations	kHS23
ALICE-USA	116.8
LBNL HPCS T2	58.4
ORNL T2	58.4

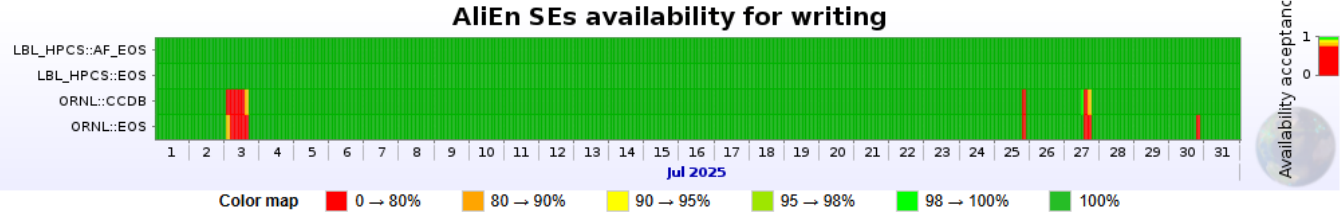
T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	4739.00	12100.00	48.31
LBNL	1054.00		
AFP	462.00		
ORNL	2923.00	3260.00	10.34
Total	9,178.00	15,360.00	40.25



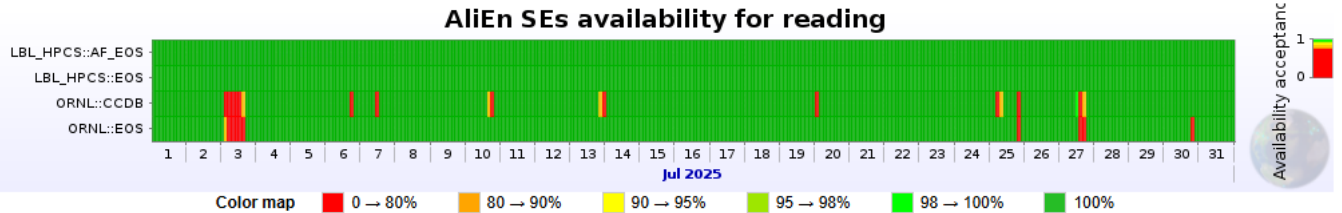
T2 Site and HPCS_Lr	CPU/Core [HS23/Core]	ALICE-USA Obligation [MHS23 x hr]	CPU Delivered [MHS23 x hr] (ML reporter)	CPU Delivered [MHS23 x hr] (WLCG reporter)	Delivered per Obligation [%] (ML reported)	Delivered per Obligation [%] (WLCG reported)
HPCS_Lr	10.0	43.45	47.39	121.00	109.1	278.5
LBNL	12.0		12.65		29.1	
AFP	12.0		5.54		12.8	
ORNL	11.5	43.45	33.61	37.49	77.4	86.3
Total		86.90	99.20	158.49	114.15%	182.38%

# 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	30 Jun 2025 23:57	01 Aug 2025 00:10	747	0	100%	100%
LBL_HPCS::EOS	01 Jul 2025 00:06	01 Aug 2025 00:19	747	0	100%	100%
ORNL::CCDB	30 Jun 2025 23:55	01 Aug 2025 00:08	732	15	97.99%	98%
ORNL::EOS	01 Jul 2025 00:06	01 Aug 2025 00:19	731	16	97.86%	97.87%

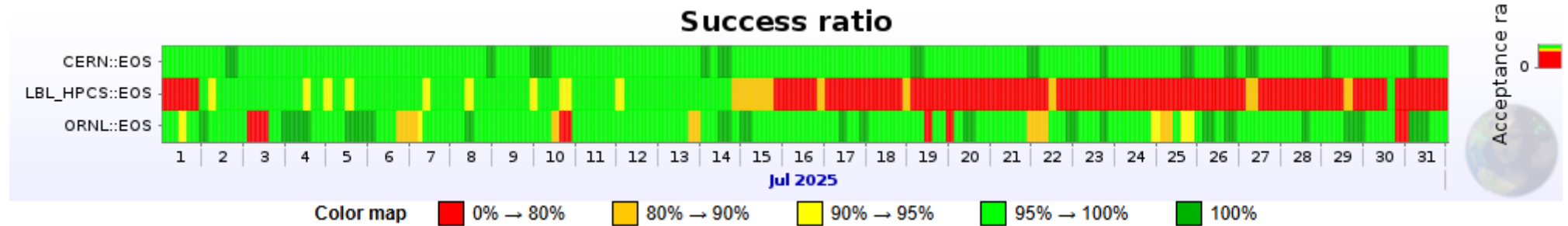


Statistics						
Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	30 Jun 2025 23:57	01 Aug 2025 00:10	747	0	100%	100%
LBL_HPCS::EOS	01 Jul 2025 00:06	01 Aug 2025 00:19	747	0	100%	100%
ORNL::CCDB	30 Jun 2025 23:55	01 Aug 2025 00:08	726	21	97.19%	97.20%
ORNL::EOS	01 Jul 2025 00:06	01 Aug 2025 00:20	731	16	97.86%	97.87%

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	887.9 TB	230.7 TB	79.38%	858,461	FILE	1.075 PB	889.7 TB	210.8 TB	80.84%	Xrootd 5.7.1	
2. LBL_HPCS - EOS	ALICE::LBL_HPCS::EOS	2	6.313 PB	4.76 PB	1.552 PB	75.41%	86,043,442	FILE	6.295 PB	4.752 PB	1.543 PB	75.49%	Xrootd 5.7.1	5.2.31
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	7.243 TB	92.76 TB	7.243%	19,197,233	FILE	-	-	-	-	Xrootd 5.8.3	
4. ORNL - EOS	ALICE::ORNL::EOS	2	6.586 PB	5.245 PB	1.341 PB	79.63%	65,780,329	FILE	6.586 PB	5.305 PB	1.281 PB	80.55%	Xrootd 5.8.3	5.3.15
Total			14.09 PB	10.88 PB	3.21 PB		171,879,465		13.96 PB	10.93 PB	3.03 PB			

# EOS: Success Ratio

- Whenever this happens mgm restart seems to help
- Looks like at least two fsts at LBL are affected



Averaged metrics for the selected interval						
SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 Jul 2025 05:21	31 Jul 2025 21:40	99.83 %	0.02 %	0.12 %	0.03 %
LBL_HPCS::EOS	01 Jul 2025 05:22	31 Jul 2025 21:34	85.27 %	0.67 %	13.98 %	0.08 %
ORNL::EOS	01 Jul 2025 05:22	31 Jul 2025 21:42	94.90 %	0.08 %	5.01 %	0.01 %

# Site Status Dashboard

Site name	Comma-separated list of site name prefixes	VOBox and SE problems
HPCS_Lr		
lrc-vobox.lbl.gov		
LBL_HPCS		
alice-vobox.lbl.gov		ALICE::LBL_HPCS::EOS redirector ALICE::LBL_HPCS::EOS doesn't see all nodes, only 4.872 PB out of 6.313 PB total space is connected
LBL_AFP		
alice-afp.lbl.gov		Networking: too large buffer size kernel parameters: tcp_wmem_max=64 MB
Perlmutter		
alice-sfapi.lbl.gov		Networking: No IPv6 public address
		CVMFS: old CVMFS version detected (2.10.0), please upgrade to 2.11.5.
4 sites		8 issues

Last Month

This month

Site name	VOBox and SE problems
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
Perlmutter	
alice-sfapi.lbl.gov	Networking: No IPv6 public address
	CVMFS: old CVMFS version detected (2.10.0), please upgrade to 2.11.5.
4 sites	7 issues