ALICE-USA Operations
Monthly Status for May 2025

June 20, 2025

ALICE-USA
COMPUTING

Availability and Reliability Reports
ALICE_CE(Jobs Running) x ALICE_VOBOX x AliEn::SE(tests)

Tier-2 Availability and Reliability Report
ALICE

May 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	Feb-2025	Mar-2025	Apr-2025
US-LBNL-ALICE	**119700**	**13100**						
LBL_HPCS			93%	93%	0%	83%	93%	100%
ORNL			83%	83%	0%	100%	100%	96%

Job Summary

- CEs
  - LBL-HPCS
    - Scratch system problems affected us
  - ORNL
    - ACL updates needed network configuration revisit
    - Once proper ports were open we were back on track
  - Lawrencium
    - Scratch system problems affected us
  - Perlmutter – **OK**
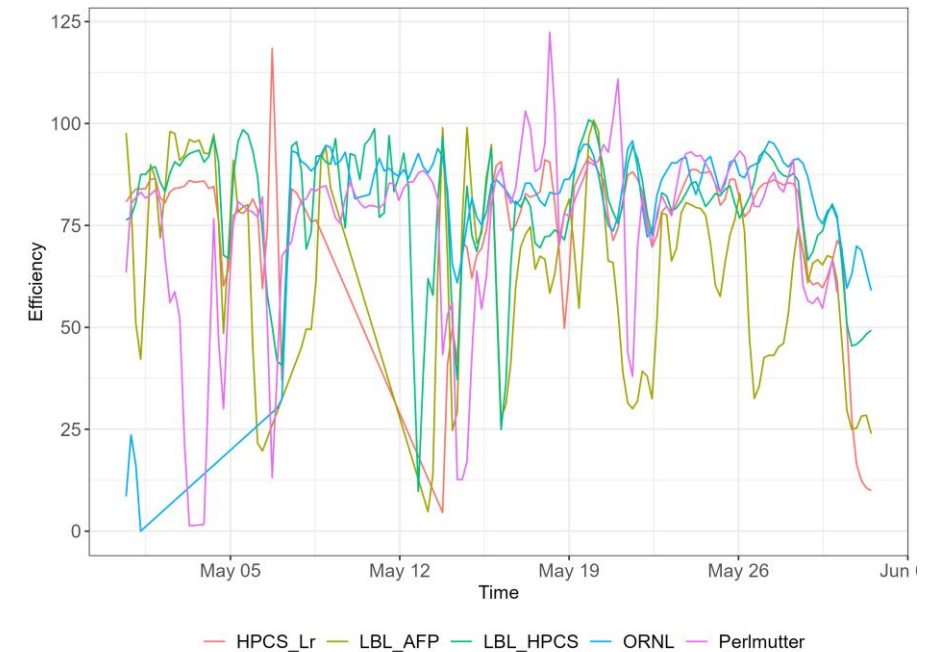 - LBL_AFP
    - Scratch system problems affected us

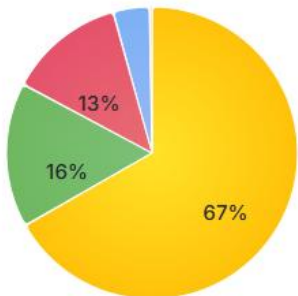

Annotated ggplot with POSIX Time
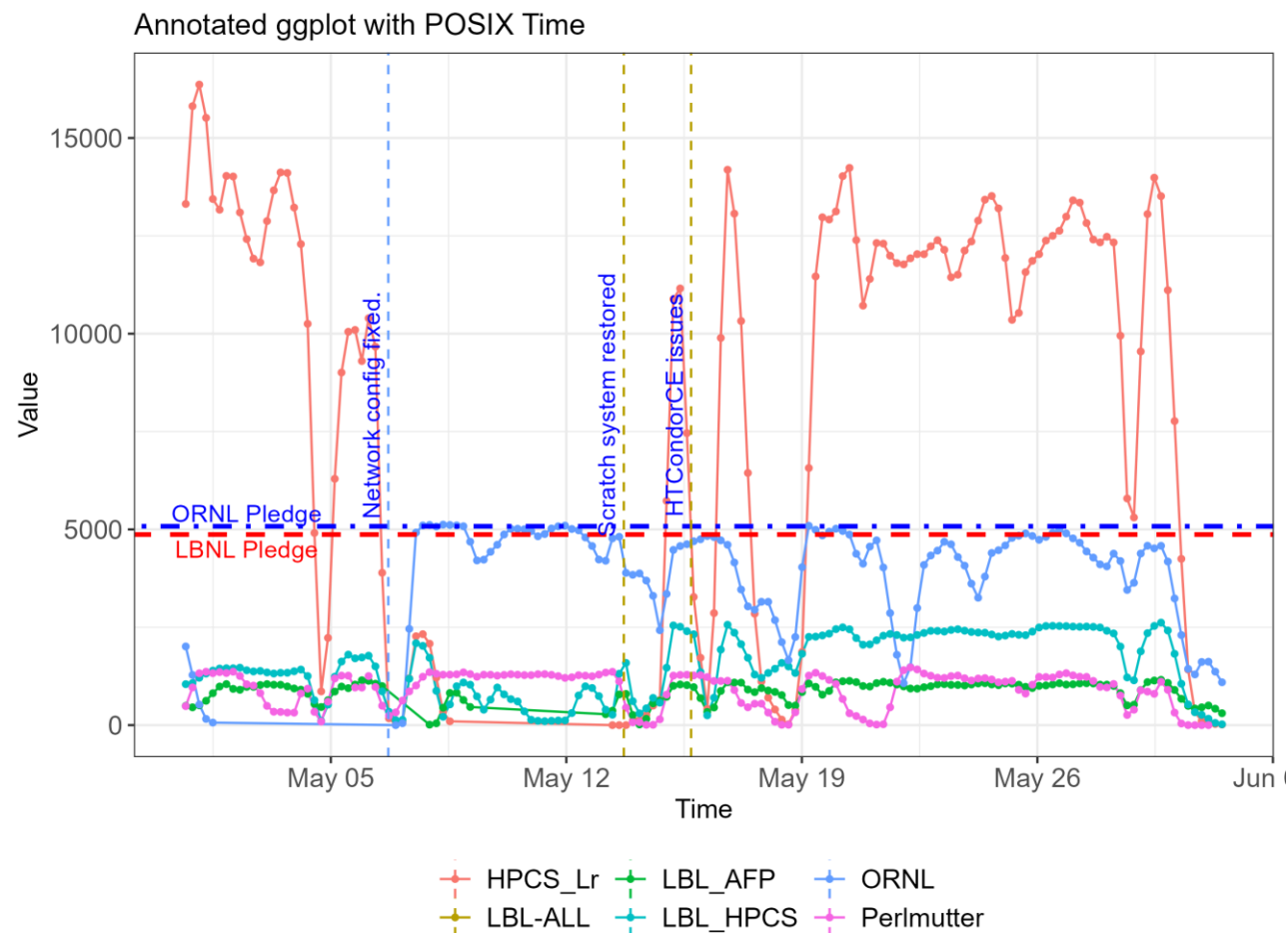
CPU Efficiency
Target Efficiency is... <u>no such thing anymore...</u>

Jobs efficiency (cpu time / wall time)

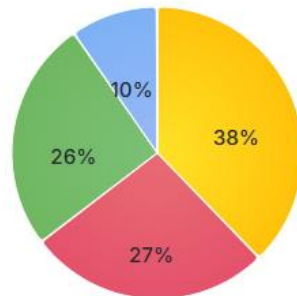|	Series	Last value	Min	Avg	Max
1. ■	HPCS_Lr	9.973	0	75.3	238.5
2. ■	LBL_AFP	24.19	0	64.2	169
3. ■	LBL_HPCS	49.24	0	79.05	194.9
4. ■	NIHAM	47.01	0	84.33	116.4
5. ■	ORNL	59.09	0	81.4	107.7
6. ■	Perlmutter	58.31	0	74.01	217.7
7. ■	UPB	78.42	0	83.26	112.8
Total		**46.6**		**77.37**	

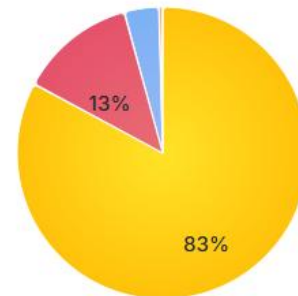

Average Job Mix [LBL_HPCS]

Average Job Mix [LBL_AFP]
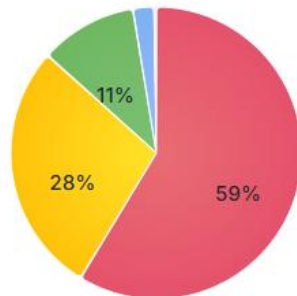
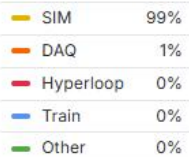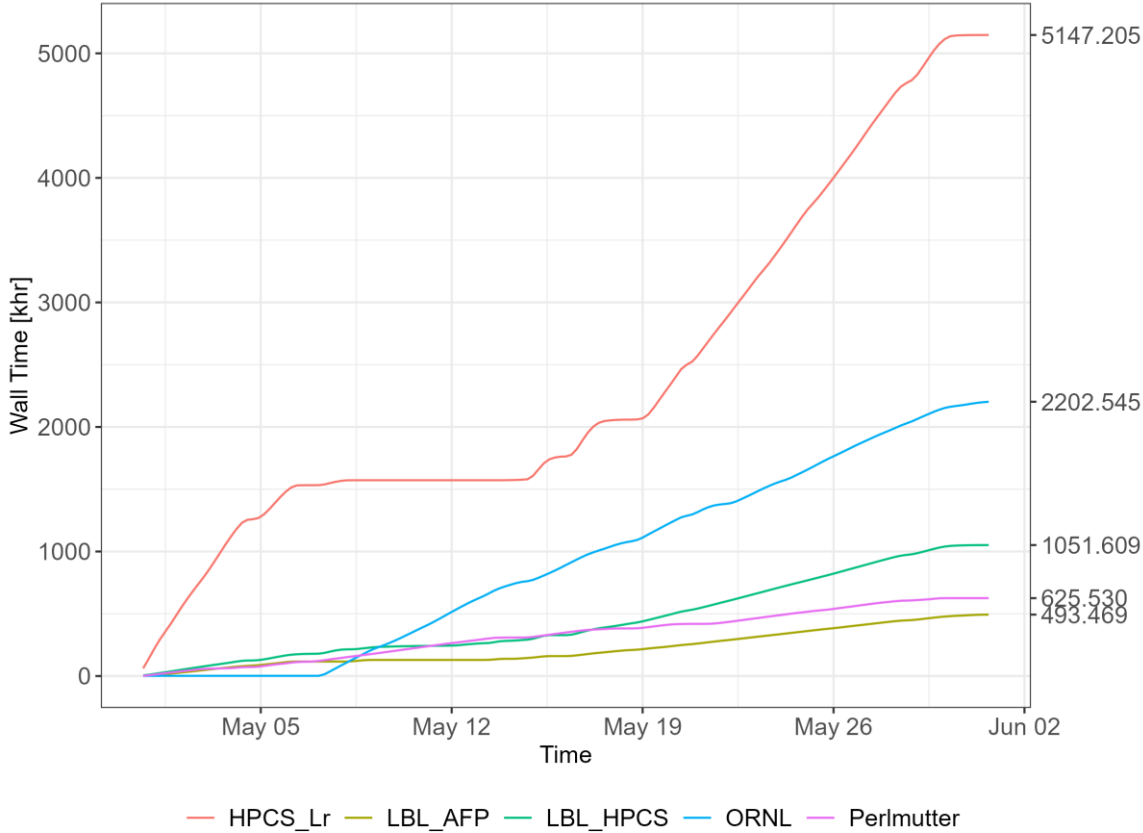Average Job Mix [ORNL]

Average Job Mix [HPCS_Lr]

Average Job Mix [Perlmutter]

SIM	99%	
DAQ	1%	
Hyperloop	0%	
Train	0%	
Other	0%	
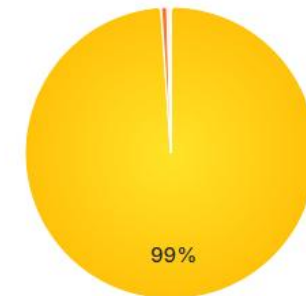
CPU Obligations	kHS23
ALICE-USA	116.8
LBNL HPCS T2	58.4
ORNL T2	58.4

T2 Site	Monalisa (khr)	WLCG (khr)	%diff
HPCS_Lr	5147.00	24796.00	73.01
LBNL	1051.60		
AFP	493.50		
ORNL	2202.50	2465.50	10.67
Total	8,894.60	27,261.50	67.37

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		51.47		118.5	
LBNL	12.0	43.45	12.62	247.96	29.0	570.7
AFP	12.0		5.92		13.6	
ORNL	11.5	43.45	25.33	28.35	58.3	65.3
Total		86.90	95.34	276.31	109.71%	317.97%

Network Traffic at LBL and ORNL

AliEn SEs availability for writing

Color map	■ 0 → 80%	■ 80 → 90%	■ 90 → 95%	■ 95 → 98%	■ 98 → 100%	■ 100%
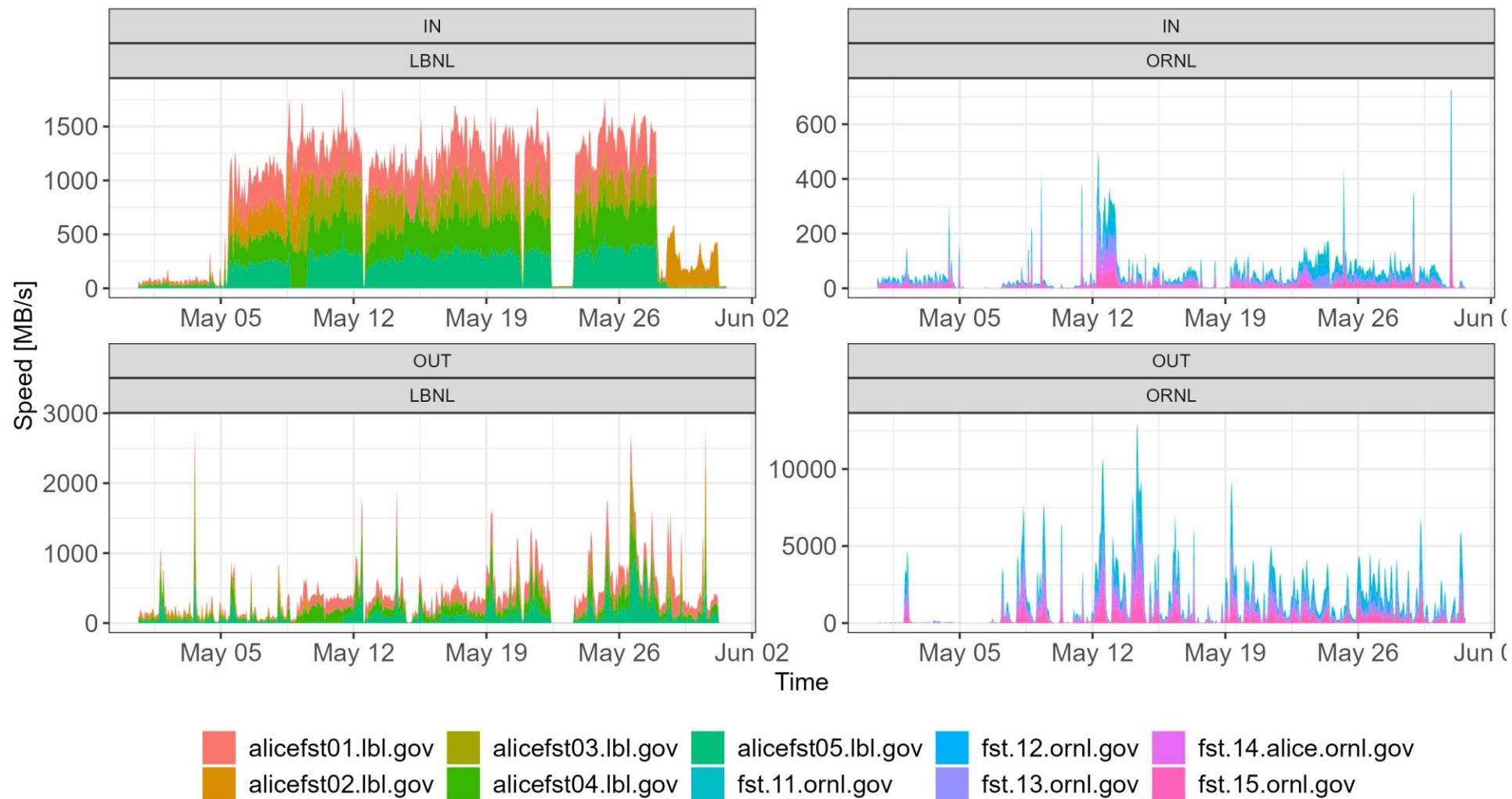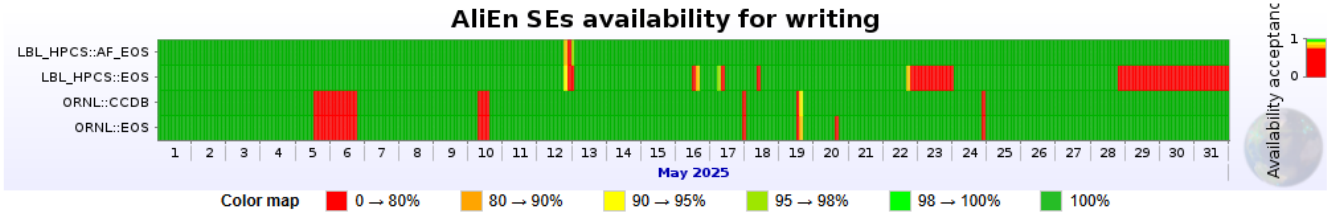
Statistics

Link name	Data		Individual results of writing tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	30 Apr 2025 23:43	01 Jun 2025 00:09	740	3	99.60%	99.60%
LBL_HPCS::EOS	30 Apr 2025 23:52	01 Jun 2025 00:23	630	112	84.91%	85.11%
ORNL::CCDB	30 Apr 2025 23:41	01 Jun 2025 00:07	706	37	95.02%	95.07%
ORNL::EOS	30 Apr 2025 23:53	01 Jun 2025 00:18	702	40	94.61%	94.67%

AliEn SEs availability for reading

Color map	■ 0 → 80%	■ 80 → 90%	■ 90 → 95%	■ 95 → 98%	■ 98 → 100%	■ 100%
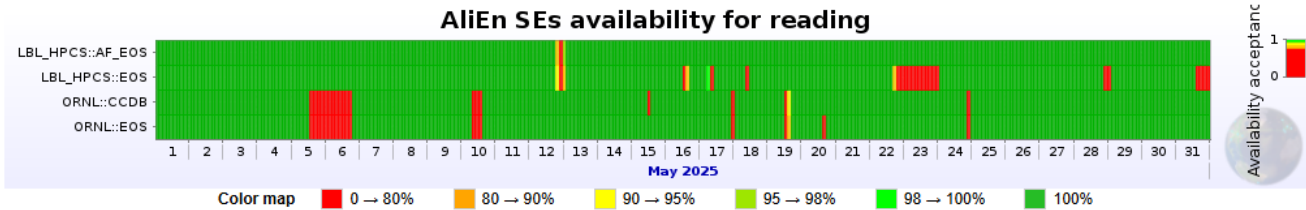
Statistics

Link name	Data		Individual results of reading tests			Overall
	Starts	Ends	Successful	Failed	Success ratio	Availability
LBL_HPCS::AF_EOS	30 Apr 2025 23:43	01 Jun 2025 00:09	740	3	99.60%	99.60%
LBL_HPCS::EOS	30 Apr 2025 23:52	31 May 2025 23:27	695	46	93.79%	93.85%
ORNL::CCDB	30 Apr 2025 23:41	01 Jun 2025 00:07	705	38	94.89%	94.93%
ORNL::EOS	30 Apr 2025 23:53	01 Jun 2025 00:18	702	40	94.61%	94.67%

	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	979.5 TB	139.1 TB	87.56%	911,615	FILE	1.092 PB	996.3 TB	122.3 TB	89.07%	Xrootd 5.7.1	
2. LBL_HPCS - EOS	ALICE::LBL_HPCS::EOS	2	6.313 PB	4.384 PB	1.929 PB	69.45%	81,440,933	FILE	6.295 PB	4.387 PB	1.907 PB	69.7%	Xrootd 5.7.1	5.2.31
3. ORNL - CCDB	ALICE::ORNL::CCDB	2	100 TB	6.584 TB	93.42 TB	6.584%	17,930,763	FILE	-	-	-	-	Xrootd 5.8.2	
4. ORNL - EOS	ALICE::ORNL::EOS	2	6.586 PB	4.852 PB	1.734 PB	73.67%	64,458,097	FILE	6.586 PB	4.94 PB	1.646 PB	75%	Xrootd 5.8.2	5.3.12
Total			14.09 PB	10.2 PB	3.89 PB		164,741,408		13.97 PB	10.3 PB	3.673 PB			

EOS: Success Ratio

- Whenever this happens mgm restart seems to help
- Looks like at least two fsts at LBL are affected
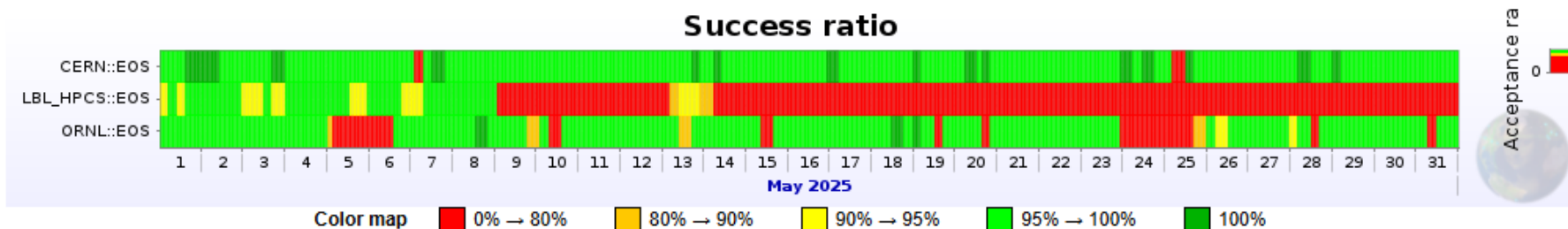
Success ratio — May 2025

Color map: 0% → 80% (red), 80% → 90% (orange), 90% → 95% (yellow), 95% → 100% (green), 100% (dark green)

Averaged metrics for the selected interval

SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	01 May 2025 05:25	31 May 2025 21:09	99.26 %	0.43 %	0.28 %	0.03 %
LBL_HPCS::EOS	30 Apr 2025 23:19	31 May 2025 20:48	58.21 %	0.38 %	41.41 %	0.00 %
ORNL::EOS	30 Apr 2025 23:19	31 May 2025 21:20	92.30 %	0.08 %	7.61 %	0.01 %
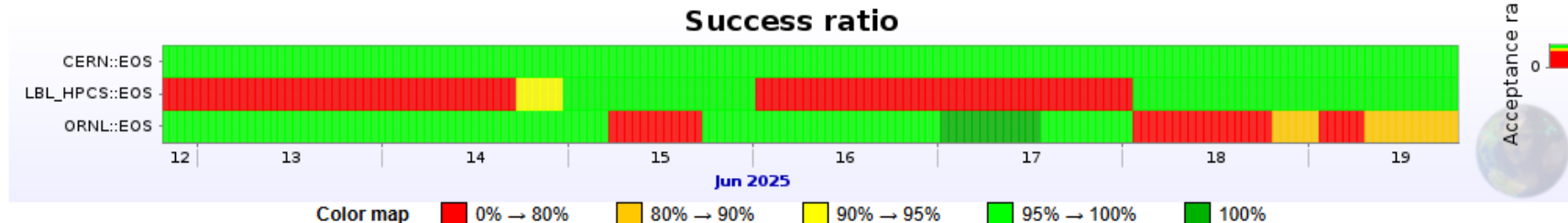
Success ratio — Jun 2025

Color map: 0% → 80% (red), 80% → 90% (orange), 90% → 95% (yellow), 95% → 100% (green), 100% (dark green)

Averaged metrics for the selected interval

SE Name	Start	End	Success ratio	Corrupt ratio	Inaccessible ratio	Internal error ratio
CERN::EOS	12 Jun 2025 22:35	19 Jun 2025 17:22	99.79 %	0.01 %	0.19 %	0.01 %
LBL_HPCS::EOS	12 Jun 2025 22:37	19 Jun 2025 16:49	55.38 %	0.25 %	44.37 %	0.00 %
ORNL::EOS	12 Jun 2025 22:39	19 Jun 2025 11:17	86.07 %	0.07 %	13.82 %	0.03 %

Site Status Dashboard

Last 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 *31 Oct 2019 12:57* (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**

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 2.13.0.
ORNL vobox.alice.ornl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.12.6), please upgrade to 2.13.0. ALICE::ORNL::PRF_EOS: ADD test fails since *21 Jan 2025 16:46* (for 149d 1:42).
LBL_HPCS alice-vobox.lbl.gov	Networking: No IPv6 public address CVMFS: old CVMFS version detected (2.11.5), please upgrade to 2.13.0.
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 2.13.0.
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 2.13.0.