

ALICE-USA Operations

Monthly Status for June 2025

July 22, 2025



Availability and Reliability Reports

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



Tier-2 Availability and Reliability Report ALICE

June 2025

Federation Details

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

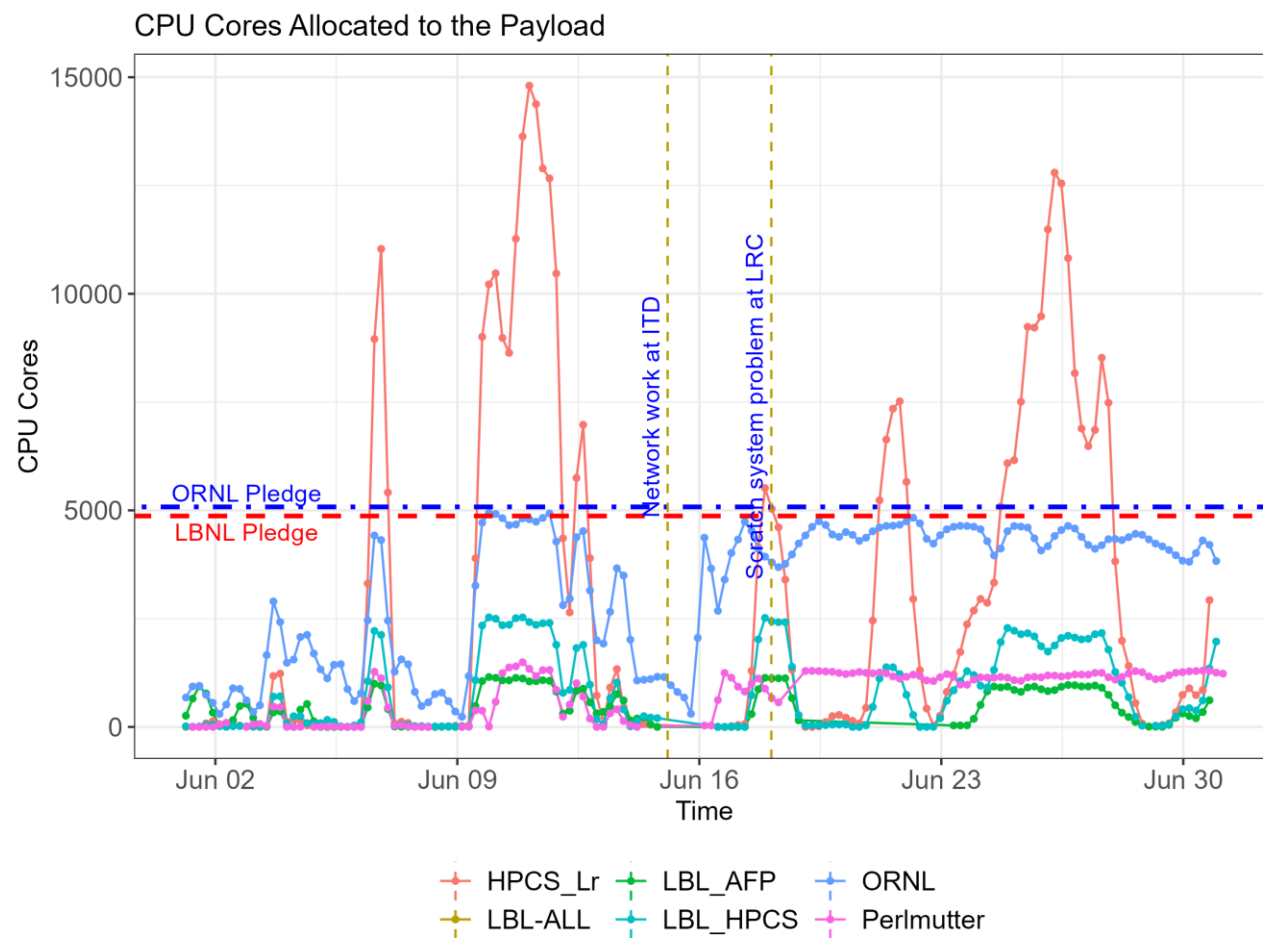
Color coding: N/A <30% <60% <90% >=90%

Availability History

| Federation & Sites | Pledge CPU | Pledge Disk | Availability | Reliability | Unknown | Mar-2025 | Apr-2025 | May-2025 |
|----------------------|---------------|--------------|--------------|-------------|---------|----------|----------|----------|
| US-LBNL-ALICE | 119700 | 13100 | | | | | | |
| LBL_HPCS | | | 84% | 84% | 6% | 93% | 100% | 93% |
| ORNL | | | 98% | 98% | 0% | 100% | 96% | 83% |

Job Summary

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

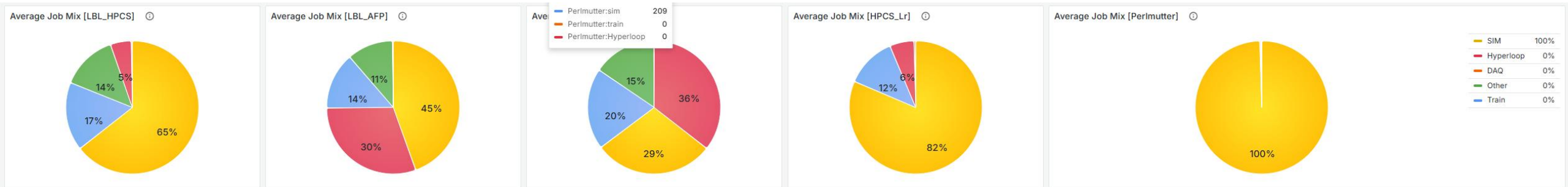
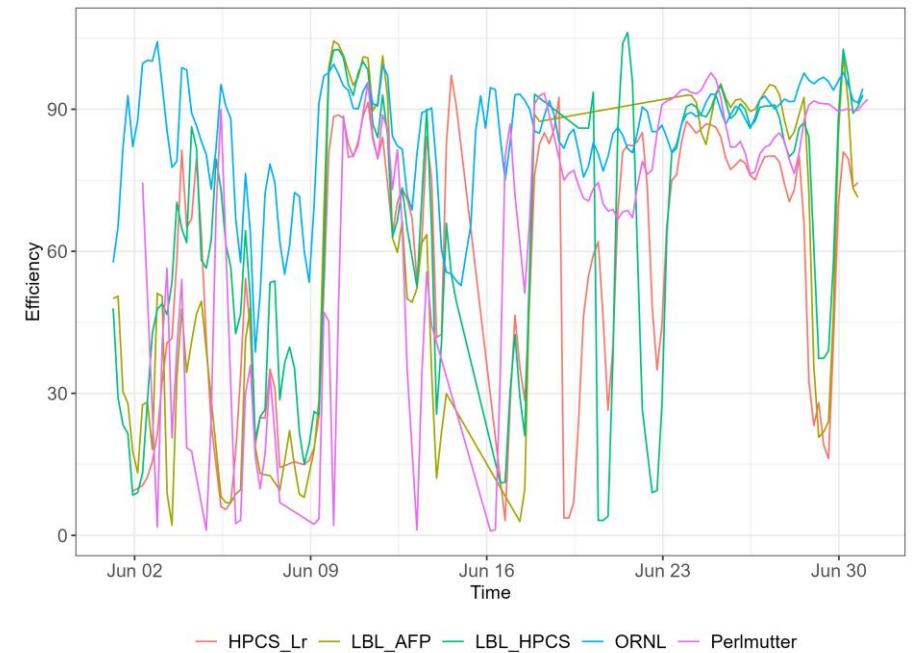


CPU Efficiency

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

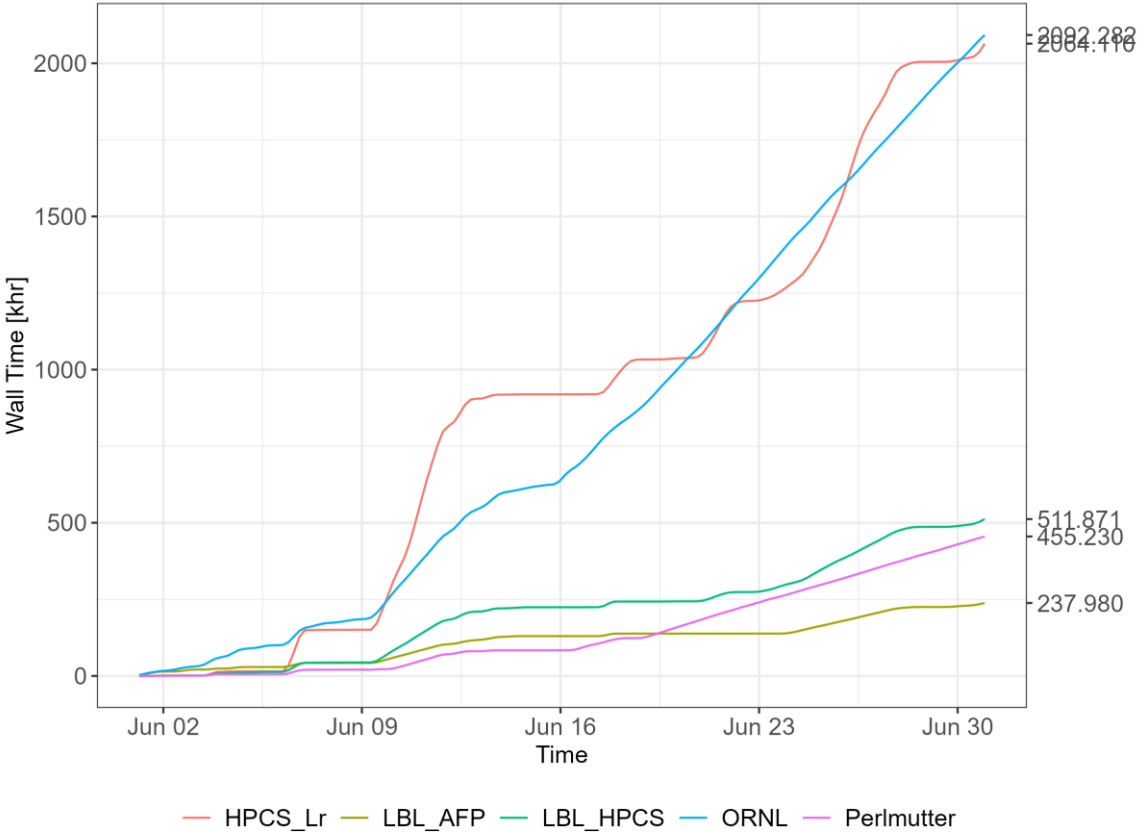
Jobs efficiency (cpu time / wall time)

| | Series | Last value | Min | Avg | Max |
|-------|------------|------------|-------|-------|-------|
| 1. | HPCS_Lr | 30.31 | 0.05 | 54.91 | 181 |
| 2. | LBL_AFP | 20.33 | 0.013 | 53.09 | 194.9 |
| 3. | LBL_HPCS | 89.16 | 0.47 | 61.73 | 201.8 |
| 4. | NIHAM | 88.22 | 1.613 | 79.63 | 180.4 |
| 5. | ORNL | 88.32 | 5.141 | 82.73 | 186.5 |
| 6. | Perlmutter | 90.49 | 0.062 | 63.21 | 207.4 |
| 7. | UPB | 90.26 | 0.066 | 80.06 | 197.1 |
| Total | | 71.01 | | 67.91 | |



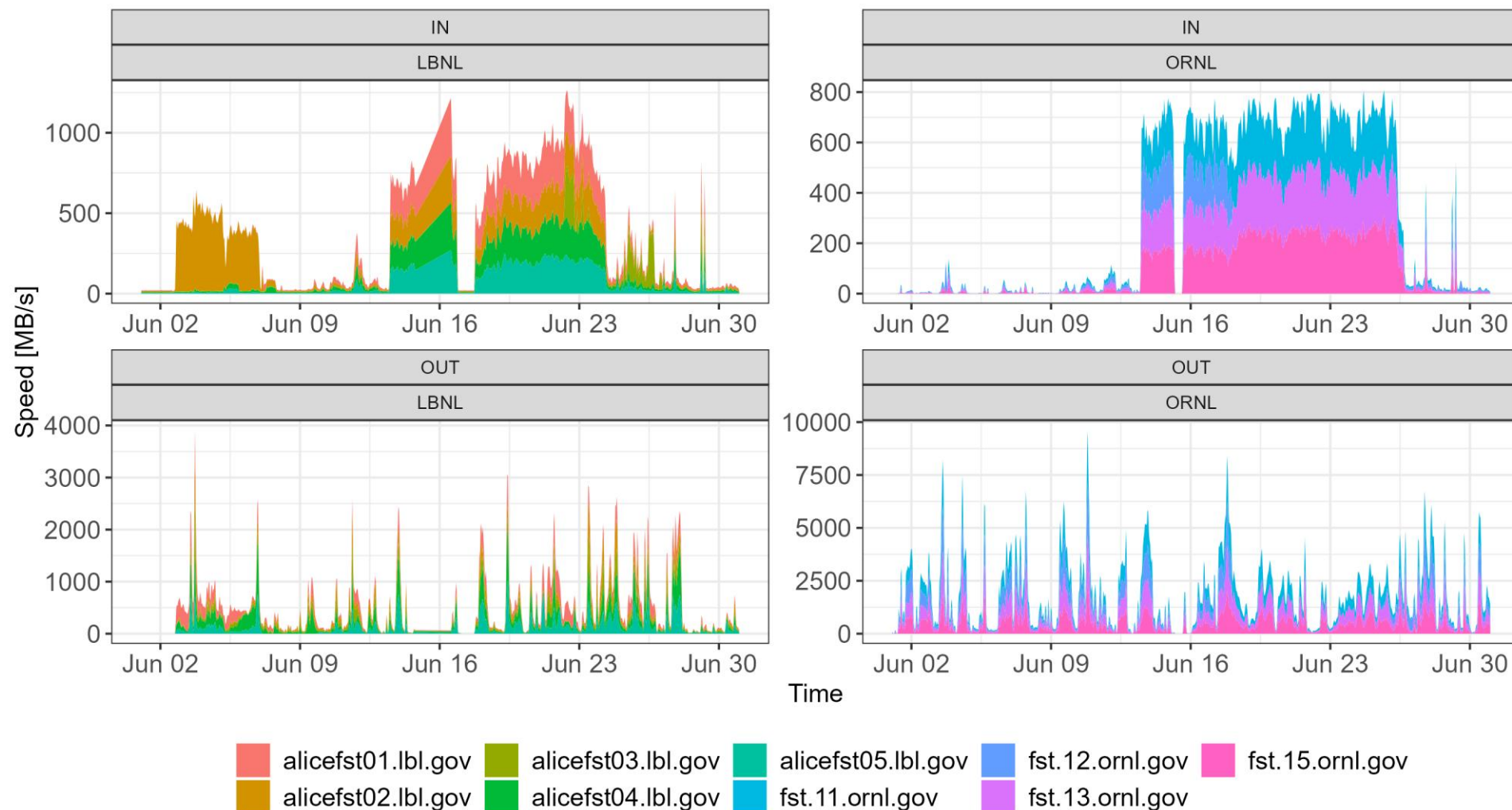
| CPU Obligations | kHS23 |
|-----------------|-------|
| ALICE-USA | 116.8 |
| LBNL HPCS T2 | 58.4 |
| ORNL T2 | 58.4 |

| T2 Site | Monalisa (khr) | WLCG (khr) | %diff |
|---------|----------------|------------|-------|
| HPCS_Lr | 2064.00 | 7135.00 | 60.56 |
| LBNL | 512.00 | | |
| AFP | 238.00 | | |
| ORNL | 2092.00 | 2571.00 | 18.63 |
| Total | 4,906.00 | 9,706.00 | 49.45 |

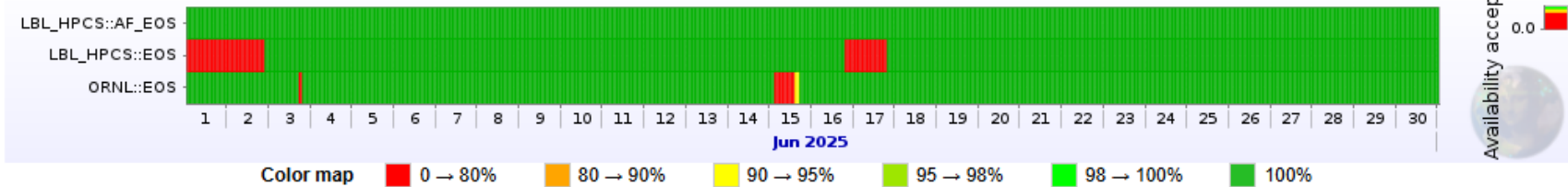


| T2 Site and HPCS_Lr | CPU/Core [HS23/Core] | ALICE-USA Obligation [MHS23 x hr] | CPU Delivered [MHS23 x hr] (ML reporter) | CPU Delivered [MHS23 x hr] (WLCG reporter) | Delivered per Obligation [%] (ML reported) | Delivered per Obligation [%] (WLCG reported) |
|---------------------|----------------------|-----------------------------------|--|--|--|--|
| HPCS_Lr | 10.0 | 42.05 | 20.64 | 71.35 | 49.1 | 169.7 |
| LBNL | 12.0 | | 6.14 | | 14.6 | |
| AFP | 12.0 | | 2.86 | | 6.8 | |
| ORNL | 11.5 | 42.05 | 24.06 | 29.57 | 57.2 | 70.3 |
| Total | | 84.10 | 53.70 | 100.92 | 63.85% | 120.00% |

Network Traffic at LBL and ORNL



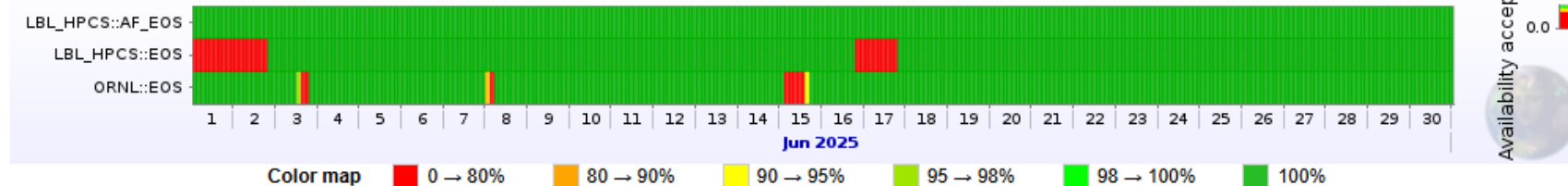
AliEn SEs availability for writing



Statistics

| Link name | Data | | Individual results of writing tests | | | Overall |
|------------------|-------------------|-------------------|-------------------------------------|--------|---------------|--------------|
| | Starts | Ends | Successful | Failed | Success ratio | Availability |
| LBL_HPCS::AF_EOS | 01 Jun 2025 00:09 | 30 Jun 2025 23:57 | 728 | 0 | 100% | 100% |
| LBL_HPCS::EOS | 01 Jun 2025 00:23 | 01 Jul 2025 00:06 | 657 | 68 | 90.62% | 90.72% |
| ORNL::EOS | 01 Jun 2025 00:18 | 01 Jul 2025 00:06 | 711 | 14 | 98.07% | 98.07% |

AliEn SEs availability for reading



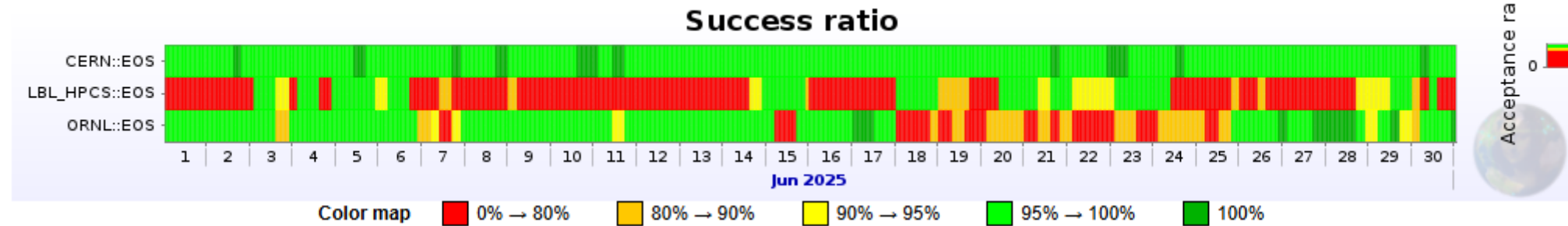
Statistics

| Link name | Data | | Individual results of reading tests | | | Overall |
|------------------|-------------------|-------------------|-------------------------------------|--------|---------------|--------------|
| | Starts | Ends | Successful | Failed | Success ratio | Availability |
| LBL_HPCS::AF_EOS | 01 Jun 2025 00:09 | 30 Jun 2025 23:57 | 728 | 0 | 100% | 100% |
| LBL_HPCS::EOS | 01 Jun 2025 00:27 | 01 Jul 2025 00:06 | 659 | 66 | 90.90% | 91% |
| ORNL::EOS | 01 Jun 2025 00:18 | 01 Jul 2025 00:06 | 711 | 14 | 98.07% | 98.07% |

| 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 | 87.57% | 911,679 | 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 | 4.639 PB | 1.673 PB | 73.49% | 82,995,743 | FILE | 4.872 PB | 3.54 PB | 1.332 PB | 72.67% | Xrootd 5.7.1 | 5.2.31 |
| 3. ORNL - CCDB | ALICE::ORNL::CCDB | 2 | 100 TB | 6.841 TB | 93.16 TB | 6.841% | 18,384,741 | FILE | - | - | - | - | Xrootd 5.8.2 | |
| 4. ORNL - EOS | ALICE::ORNL::EOS | 2 | 6.586 PB | 5.221 PB | 1.365 PB | 79.27% | 65,454,901 | FILE | 6.586 PB | 5.28 PB | 1.306 PB | 80.17% | Xrootd 5.8.2 | 5.3.13 |
| Total | | | 14.09 PB | 10.82 PB | 3.265 PB | | 167,747,064 | | 12.55 PB | 9.794 PB | 2.757 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 Jun 2025 02:40 | 30 Jun 2025 23:33 | 99.79 % | 0.01 % | 0.16 % | 0.04 % |
| LBL_HPCS::EOS | 01 Jun 2025 02:42 | 30 Jun 2025 23:42 | 58.84 % | 0.44 % | 40.73 % | 0.00 % |
| ORNL::EOS | 01 Jun 2025 02:42 | 30 Jun 2025 23:29 | 91.34 % | 0.10 % | 8.55 % | 0.01 % |

Site Status Dashboard

| 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. |

Last Month

| Site name | Comma-separated list of site name prefixes | VOBox and SE problems |
|--|--|--|
| HPCS_Lr lrc-vobox.lbl.gov | | Networking : No IPv6 public address |
| 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 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. |
| 4 sites | | 8 issues |

This month