

# LSST Service Status page

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- [Current Status](#)
- [Upcoming Scheduled Maintenance](#)
- [Recurring Scheduled Maintenance](#)
- [Previous Outages & Events](#)
- [DM Meetings and Events](#)

All times listed are **Project Time (Pacific)**

## Current Status

Start	End	Event	Location	Description	Systems/services that will NOT be available	Status

## Upcoming Scheduled Maintenance

Start	End	Event	Location	Description	Systems/services that will NOT be available	Status
2020-04-30	n/a	Monthly LSST system maintenance	NCSA	n/a	n/a	<b>CANCELLED</b>

## Recurring Scheduled Maintenance

(All times are Project Time (Pacific))

Start	End	Event	Location	Description	Systems/services that will NOT be available	Status
Last Thursday of every month 06:00	Last Thursday of every month 10:00	<b>Recurring-Monthly</b> Monthly lsst-dev maintenance	NCSA	<ul style="list-style-type: none"> <li>Routine system updates.</li> </ul>	Variable. Do not expect any lsst-dev system to be available during this period.	<b>SCHEDULED</b>
Every Mon. 04:00		<b>Recurring-Weekly</b> Purge of GPFS /scratch partition	NCSA	Per <a href="#">LSST data management policies</a> , files older than 180 days will be purged from the LSST shared (GPFS) /scratch file system.  Purge logs can be found in <code>/lsst/admin/purge_logs/scratch/</code>	No outage or service disruption.	<b>SCHEDULED</b>
Every Tu. 08:00	Every Tu. 10:00	<b>Recurring-Weekly</b> Weekly Nebula Maintenance	NCSA	Routine system updates. Computational services continue to run.	Horizon and API interfaces.	<b>SCHEDULED</b>

## Previous Outages & Events

Start	End	Event	Location	Description	Systems/services that were NOT available	Status
2020-02-27 06:00	2020-02-27 12:00	Monthly LSST system maintenance	NCSA	<ul style="list-style-type: none"> <li>OS updates and reboots</li> <li>Other updates as needed</li> <li>note: Slurm compute nodes will be updated through rolling reboots beginning on 2020-02-28</li> </ul>	ALL LSST systems will be updated, including: <ul style="list-style-type: none"> <li>TBD</li> </ul>	<b>COMPLETE</b>

2020-02-17 18:00	2020-02-17 21:25	LDAP and authentication interruption	NCSA	Intermittent timeouts on LSST's LDAP replica servers at NCSA caused authentication issues for most LSST servers at NCSA. This was triggered by replication timeouts after NCSA's primary LDAP server outage earlier around 16:00. LDAP issues for LSST resources did not occur till about 18:00. The LSST LDAP replica servers recovered around 19:20. Later, we discovered that many servers needed their SSSD cache manually cleared to allow authentication, which was resolved around 21:20.	Authentication to most LSST systems, including: <ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, etc.</li> <li>• PDAC/Kubernetes /LSP clusters</li> <li>• NCSA Test Stand</li> </ul>	RESOLVED
2020-01-30 06:09	2020-01-30 07:51	shared filesystem interruption  errant "New LSSTdev Account" emails	NCSA	Many LSST users who have NCSA accounts received an errant email this morning with a subject of "New LSSTdev Account at NCSA". <b><i>This email can be ignored.</i></b> The email was caused by a bug in provisioning scripts that was triggered by a short shared filesystem interruption. The shared filesystem issue has now been resolved.	Many LSST systems (all native GPFS clients): <ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, etc.</li> <li>• Slurm verification cluster</li> </ul>	RESOLVED
2020-01-15 05:00	2020-01-15 12:00	Hardware repair in NCSA Test Stand	NCSA	<ul style="list-style-type: none"> <li>• 21 servers in the NCSA Test Stand had their drive backplanes replaced by the vendor</li> </ul>	19 of 52 active servers in the NCSA Test Stand, including: <ul style="list-style-type: none"> <li>• Isst-l1-cl-arctl.ncsa.illinois.edu</li> <li>• Isst-l1-cl-audit.ncsa.illinois.edu</li> <li>• Isst-l1-cl-efd.ncsa.illinois.edu</li> <li>• Isst-l1-cl-fault.ncsa.illinois.edu</li> <li>• Isst-l1-cl-header.ncsa.illinois.edu</li> <li>• Isst-l1-us-fault.ncsa.illinois.edu</li> <li>• Isst-teststand-ts1.ncsa.illinois.edu</li> </ul> Most LSST servers will remain up.	COMPLETE
2019-12-12 06:00	2019-12-12 12:00	Monthly LSST system maintenance	NCSA	<ul style="list-style-type: none"> <li>• OS updates and reboots</li> <li>• GPFS filesystem restructure</li> </ul>	ALL LSST systems will be updated, including: <ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, etc.</li> <li>• Slurm verification cluster</li> <li>• PDAC/Kubernetes /LSP clusters</li> <li>• tus-ats01</li> <li>• NCSA test stand</li> </ul>	COMPLETE
27 Sep 2019 7:00pm (PT)	28 Sep 2019 11:30pm (PT)	Building power maintenance & GPFS firmware upgrade	LDF (NCSA)	<ul style="list-style-type: none"> <li>• Full building power outage in NCSA facility at NCSA</li> <li>• Firmware upgrade of GPFS appliance (causes Home directories to be unavailable)</li> </ul>	ALL LSST systems, including: <ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, etc.</li> <li>• Slurm verification cluster</li> <li>• PDAC/Kubernetes /LSP clusters</li> <li>• L1 test stand</li> </ul>	COMPLETE  Oracle is still down but is expected to be returned to service later this afternoon.
18 Jul 2019 8:15am (PT)	18 Jul 2019 2:40pm (PT)	Isst-oradb down	LDF (NCSA)	The primary Oracle service was down after this morning's planned maintenance due to issues accessing NetApp storage.	Isst-oradb was down <ul style="list-style-type: none"> <li>• Isst-oradb-test was up</li> </ul>	RESOLVED
18 Jul 2019 6:00am (PT)	18 Jul 2019 8:15am (PT)	Monthly maintenance	LDF (NCSA)	<ul style="list-style-type: none"> <li>• OS updates and reboots</li> <li>• <del>Dell firmware updates</del></li> <li>• <del>firmware update on bastion01 (see separate entry scheduled for 04:00-06:00am)</del></li> <li>• <del>pfSense firewall maintenance (postponed)</del></li> </ul>	ALL LSST systems, including: <ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, etc.</li> <li>• Slurm verification cluster</li> <li>• PDAC/Kubernetes /LSP clusters</li> <li>• tus-ats01</li> <li>• L1 test stand</li> </ul>	COMPLETE with the following exceptions: <ul style="list-style-type: none"> <li>• lsp-int is still inaccessible</li> <li>• two L1 test nodes are still down: <ul style="list-style-type: none"> <li>• <del>Isst-l1-cl-fw416</del> (back up)</li> <li>• Isst-l1-cl-ocs</li> </ul> </li> <li>• production Oracle services (Isst-oradb.ncsa.illinois.edu) are still down</li> </ul>
23 Jun 2019 5:00am (PT)	23 Jun 2019 12:00 Noon (PT)	Full building power maintenance	LDF (NCSA)	Full building power outage in NPCF facility at NCSA.  End time is approximate.	<ul style="list-style-type: none"> <li>• Isst-dev01, Isst-xfer, Isst-dbb-gw</li> <li>• Slurm verification cluster</li> <li>• PDAC/Kubernetes /LSP clusters</li> </ul>	COMPLETE

21-May-2019 9:00am (PT)	22-May-2019 5:00pm (PT)	k8s cluster migration	NCSA	Migrate old kubernetes cluster to redeployed clusters with redundant head nodes.  UPDATE: lsp-stable was primarily stable a few hours after the planed end time on May 21st. lsp-int services required an extra day to stabilize.	All k8s at NCSA including:  lsp-stable  lsp-int	<b>COMPLETE</b>  • some lsp-int services are still offline, but impact a very limited number of users.
16-May-2019 6:00am (PT)	16-May-2019 10:00am (PT)	Monthly maintenance	LDF (NCSA)	Update authentication to use new LDAP & Kerberos servers.  No interruption of service or downtime is expected.	No interruption of service or downtime.  ALL LSST systems, including:  • lsst-dev01, lsst-xfer, etc. • Slurm verification cluster • PDAC/Kubernetes /LSP clusters • tus-ats01	<b>COMPLETE</b>
10-May-2019 07:30am	10-May-2019 08:10am	LSST Identity	LDF (NCSA)	Upgrade PHP to v7 on LSST Identity website.	Expect LSST Identity website will have minimal, momentary downtime	<b>COMPLETED</b>
23-Apr-2019 10am	23-Apr-2019 3pm	Ci-logon AWS	AWS	On April 23, 2019, the Amazon Web Services (AWS) infrastructure supporting the CiLogon COmanage Registry and LDAP services will be modified to increase the high availability (HA) posture. A new network load balancer (NLB) will be introduced and DNS entries modified to point to the new NLB interfaces. The existing NLB interfaces will continue to function for 72 hours after the transition to support any clients that have cached the older (current) DNS mappings.	No anticipated outages  <a href="mailto:help@cilogon.org">help@cilogon.org</a> if problems with schedule	<b>COMPLETED</b>
18-Apr-2019 6:00am (PT)	18-Apr-2019 10:00am (PT)	Monthly maintenance	LDF (NCSA)	<del>40G network switch maintenance</del> • GPFS server updates • OS updates (incl. updated kernel) and reboots • Dell firmware updates • Kubernetes update (v1.13.3 to v1.14.0) • Pending configuration changes via Puppet	ALL LSST systems, including:  • lsst-dev01, lsst-xfer, etc. • Slurm verification cluster • PDAC/Kubernetes /LSP clusters • tus-ats01	<b>COMPLETED</b>
4Apr2019 6:00AM (PT)	4Apr2019 7:00AM (PT)	Network Maintenance	NCSA	Network engineers at NCSA migrated switches servicing L1 test stand and others within NCSA-3003 to a new router. A brief blip (<60s) took place as router interfaces are migrated.	L1 Test Stand  NCSA-3003 Infrastructure	<b>COMPLETED</b>
4/2/2019 7am	4/2/2019 8am	Cilogon will be upgraded	NCSA	CiLogon is upgrading. Can test code now at <a href="http://test.cilogon.org">test.cilogon.org</a> .	No outage is expected. Just new release moved from test to production.	<b>COMPLETED</b>
19-Mar-2019 04:15	19-Mar-2019 07:58	lsst-dev01 GPFS issue	LDF (NCSA)	The lsst-dev01 server was repeatedly being expelled from GPFS cluster after unexpected socket errors.	lsst-dev01	<b>RESOLVED</b> A reboot of the server resolved the socket errors.
12-Mar-2019 5am (PST)	13-Mar-2019 3:45pm (PST)	network testing with LSTdev Slurm compute nodes	LDF (NCSA)	24 of the LSSTdev/Slurm compute nodes were reserved for admin use for this testing	verify-worker[13-36]	testing was extended into the 13th but was completed and nodes were returned to service
12-Mar-2019 11:25am (PST)	12-Mar-2019 12:25pm (PST)	LSST Oracle service unavailable	LDF (NCSA)	public DNS names were inadvertently removed for LSST's Oracle servers/service	LSST Oracle service at the LDF (lsst-oradb)	<b>RESOLVED</b>  • DNS entries were recreated and active by 12:25 (PST) • slowness following return to service was initially reported by one user but this seems to have resolved itself
09-Mar-2019 8:35pm	09-Mar-2019 8:35pm	Host reboots due to power fluctuation	LDF (NCSA)	27 L1 "NCSA test stand" nodes rebooted  • NCSA continues to engage Dell on this issue; this particular model (C6420) has been uniquely susceptible to issues during brownouts	27 L1 "NCSA test stand" nodes	<b>RESOLVED</b>
06-Mar-2019 6am (PST)	06-Mar-2019 7am (PST)	pfSense firewall config update.	NCSA	pfSense network config update to stage 'k8s-prod' deployment. Requires failover of firewall, and may cause short (~60s) outage of systems behind the firewall.	All services behind pfSense firewall at NCSA. (qserv, verify, lsp, oradb)	<b>COMPLETED</b>

21-Feb-2019 6:00am (PT)	21-Feb-2019 10:00am (PT)	Monthly maintenance	NCSA	<ul style="list-style-type: none"> <li>OS/Yum updates</li> <li>Switch maintenance in NPCF N73 &amp; P73</li> <li>pfSense update &amp; port negotiation change</li> <li>GPFS server updates</li> <li>Firmware updates for Dell C6420s</li> </ul>	<p>ALL systems operated by NCSA, including:</p> <ul style="list-style-type: none"> <li>lsst-dev01, lsst-xfer, etc.</li> <li>PDAC, verification, and Kubernetes clusters</li> <li>tus-ats01</li> </ul>	<b>COMPLETED</b>
2/18/2019 - 7am (PT)	2/18/2019 - 9am (PT)	K8 upgrade for security reasons	LDF	<p>Security vulnerabilities require a update to the K8/Docker infrastructure at LDF.</p> <p>Upgrade Docker from `17.03.1` to `18.09.2` Upgrade Kubernetes from `1.11.5` to `1.13.3`</p> <p>Upgrade completed on time but some additional troubleshooting had to be done to get lsp-stable and lsp-int back online.</p>	K8 nodes	Emergency
17-Jan-2019 6:00am	17-Jan-2019 10:00am	Monthly maintenance	NCSA	<ul style="list-style-type: none"> <li>power rebalancing in one rack</li> <li>switch maintenance in select racks</li> <li>critical security patching</li> <li>server firmware upgrades</li> </ul>	ALL LSST systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC, verification, and Kubernetes clusters, and tus-ats01)	<b>RESOLVED</b> Systems are back online and should be functioning with the following exceptions: <ul style="list-style-type: none"> <li>lsp services in Kubernetes are not fully functional (this is carryover from before the PM; see discussion on Slack, dm-lsp-users and possibly other channels)</li> <li>lsst-l1-ci-dmcs will not boot after firmware updates</li> </ul> Please open tickets if you notice other issues.
18-Dec-2018 9:46am	18-Dec-2018 11:00am	Host reboots due to power fluctuation	LDF (NCSA)	<p>A power event caused some hosts to reboot:</p> <ul style="list-style-type: none"> <li>lspdev kubernetes cluster (12 nodes including master node did not come back on their own and were manually brought online around 11:00am)</li> <li>some L1 nodes rebooted as well</li> </ul>	lspdev was unavailable from ~09:40 until ~11:00am	<b>RESOLVED</b> Systems are back online and should be functioning, but please open tickets if there are lingering issues.
5-Dec-2018 7:00am	5-Dec-2018 8:30am	PDAC and lspdev k8s merge	NCSA	The PDAC k8s environment was merged into the lspdev k8s cluster. Services will continue to be isolated through Kubernetes namespaces, labels, taints, etc.	Services running in PDAC Kubernetes	<b>COMPLETE</b>
29-Nov-2018 6:00am	29-Nov-2018 12:00 noon	Monthly maintenance	NCSA	<ul style="list-style-type: none"> <li>Puppet code changes</li> <li>disable CPU hyperthreading (requires reboot!!!)</li> <li>OS/Yum updates</li> <li>code upgrades on select service &amp; management switches NPCF</li> <li>pfSense updates</li> </ul>	ALL LSST systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC, verification, and Kubernetes clusters, and tus-ats01)	<b>COMPLETE</b>
13-Nov-2018 5:30 PST	13-Nov-2018 6:30 PST	lspdev cluster reboot	NCSA	<ul style="list-style-type: none"> <li>Reseating Kubernetes nodes in their chassis slots to resolve errors caused by power event over the weekend.</li> </ul>	lspdev/Kubernetes cluster	<b>RESOLVED</b>
10-Nov-2018 ~02:40	10-Nov-2018 ~02:45	Host reboots due to power fluctuation	LDF (NCSA)	<p>A power event caused some hosts to reboot:</p> <ul style="list-style-type: none"> <li>lspdev kubernetes cluster (3 nodes including master node did not come back on their own and were manually brought online around 07:30)</li> <li>some L1 nodes rebooted as well</li> </ul>	lspdev was unavailable from ~02:40 until ~07:30	<b>RESOLVED</b> Systems are back online and should be functioning, but please open tickets if there are lingering issues.
11/6/2018 5am (PT)	11/6/2018 1pm (PT)	Power maintenance	LDF (NCSA)	Some power distribution panels are being worked on, but should NOT cause any LSST environment disruptions.	None	<b>COMPLETE</b>
01-Nov-2018 10:00	01-Nov-2018 10:05	Critical security patching	NCSA	Addressed vulnerability CVE-2018-14665 on the 3 lsst-dev hosts.	No interruption of service.	<b>RESOLVED</b>

18-Oct-2018 06:00	18-Oct-2018 10:00	Monthly maintenance	NCSA	<p>Activities are minimal this month and are expected to cause little impact:</p> <ul style="list-style-type: none"> <li>firmware update and reboot on monitor01 (monitoring collector)</li> <li>OS &amp; Kernel updates on <a href="https://tus-ats01.lsst.ncsa.edu">tus-ats01.lsst.ncsa.edu</a></li> <li>Puppet code changes</li> </ul>	<ul style="list-style-type: none"> <li>monitor01/InfluxDB (and likely the front-end Grafana monitoring, e.g., <a href="https://monitor-ncsa.lsst.org">monitor-ncsa.lsst.org</a>) will be unavailable for a short period of time</li> <li>tus-ats01 will be unavailable for OS &amp; Kernel updates</li> <li>the Puppet changes are intended to be functional "no-ops" and should cause no outage, although we scheduled these changes during our monthly PM window in case something unexpected occurs</li> </ul>	COMPLETE
15-Oct-2018 05:35	15-Oct-2018 07:15	Power event -> host outage at one datacenter	NCSA	<p>A power blip caused all physical hosts at the NCSA building to power off or reboot.</p> <ul style="list-style-type: none"> <li>None of the LSST physical hosts at the NPCF building were affected.</li> </ul>	<p>affected: all physical LSST hosts (and VMs) at the NCSA building:</p> <ul style="list-style-type: none"> <li>incl. lsst-dev*, lsst-xfer, lsst-l1*, lsst-daq, lsst-dev-db</li> <li>most physical hosts rebooted themselves after the event, although a few L1 systems had to be manually powered on</li> <li>most VMs had to be manually started after the event</li> <li>update: also includes Nebula, which is still impacted</li> </ul> <p>unaffected: all physical LSST hosts (and VMs) at the NPCF building:</p> <ul style="list-style-type: none"> <li>incl. lsst-qserv*, lsst-verify-worker*, lsst-sui*, lsst-kub*, GPFS</li> </ul>	<p>RESOLVED</p> <ul style="list-style-type: none"> <li>note: Nebula is still impacted by the outage</li> </ul>
04-Oct-2018 06:00	04-Oct-2018 07:15	Critical security patching	NCSA	<p>An incorrect date (Oct 1) was initially posted for this maintenance. The correct date is Thu, Oct 4.</p>	<p>ALL lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC, verification, and Kubernetes clusters)</p> <p>The following systems <i>will</i> remain online and unaffected:</p> <ul style="list-style-type: none"> <li>tus-ats01</li> </ul>	<p>RESOLVED</p> <ul style="list-style-type: none"> <li>sui-tomcat02 is getting rebooted once more to resolve an issue with NFS mounts but we expect it to be resolved easily</li> </ul>
20-Sep-2018 06:00	22-Sep-2018 14:50	Qserv Master outage	NCSA	<p>qserv-master01 is having trouble booting after a motherboard replacement during planned maintenance.</p>	<p>Qserv in general, specifically qserv-master</p>	RESOLVED
20-Sep-2018 06:00	20-Sep-2018 12:40	LSPdev Kubernetes	NCSA	<p>1. LSPdev is having a gateway error</p>	<p>LSPdev</p>	RESOLVED
20-Sep-2018 06:00	20-Sep-2018 12:00	Monthly maintenance	NCSA	<ol style="list-style-type: none"> <li>Network switch firmware updates/reboots</li> <li>Lenovo firmware updates/reboots</li> <li>OS package updates/reboots</li> <li>ESXi hypervisor updates/reboots</li> <li>GPFS client changes and upgrade to 4.2.3-10</li> <li>GPFS server upgrade to 4.2.3-10</li> </ol>	<p>All systems will be unavailable during this period.</p>	<p>RESOLVED</p> <p>qserv-master01 and LSPdev are still having issues. These will be tracked as a separate incidents.</p>
09-Aug-2018 09:00	09-Aug-2018 09:37	lsst-dev01 Outage	NCSA	<p>The lsst-dev01 server was unreachable for &gt;60sec from the GPFS cluster and got expelled from the GPFS cluster. Open file handles and/or bind mounts from GPFS prevented lsst-dev01 from reconnecting to GPFS until it was rebooted. We suspect that a big job on the Slurm cluster may have contributed to some network congestion that triggered this.</p>	<p>lsst-dev01</p>	RESOLVED
03-Aug-2018 10:00	03-Aug-2018 13:30	NCSA VPN was not working for some users.	NCSA	<p>A configuration issue caused some VPN users connection problems to some NCSA resources.</p>	<p>NCSA VPN</p>	RESOLVED
29-Jul-2018	03-Aug-2018 05:45	Bulk Transfer Server Rebuild	NCSA	<p>The Globus endpoint on lsst-xfer stopped working on July 29 after a certificate from the outdated GridFTP service expired. lsst-xfer was rebuilt and upgraded with CentOS 7.5, Globus Connect Server (v4), bbcp (17.12), and iRODS client (4.2.3). Globus bookmarks to the <code>lsst#lsst-xfer</code> endpoint may need to be updated to point to the rebuilt endpoint.</p>	<p>Globus on lsst-xfer</p>	RESOLVED

27-Jul-2018	27-Jul-2018	NCSA VPN Migration	NCSA	<p>NCSA will be migrating to a new VPN with multi-factor authentication. The new VPN is currently available, and users are encouraged to start using the new VPN before the cutoff date in order to ensure continued connectivity. <b>All users must be registered with NCSA's Duo before they can use the new VPN.</b> Links to the how-to article as well as the new VPN and Duo login are included below.</p> <ul style="list-style-type: none"> <li>• How-To: <a href="https://wiki.ncsa.illinois.edu/x/hJsDAg">https://wiki.ncsa.illinois.edu/x/hJsDAg</a></li> <li>• VPN: <a href="https://sslvpn.ncsa.illinois.edu/">https://sslvpn.ncsa.illinois.edu/</a></li> <li>• Duo: <a href="https://duo.security.ncsa.illinois.edu/login/">https://duo.security.ncsa.illinois.edu/login/</a></li> </ul>	No interruption of service is expected.	<b>COMPLETE</b>
19-Jul-2018 10:00	19-Jul-2018 10:30	DB services on Isst-dev-db are unavailable along with dependent services, including:	NCSA	<p>MariaDB service did not start on Isst-dev-db after maintenance. There is a newer setting in MariaDB that didn't like the current mount point.</p>	<p>DB services on Isst-dev-db</p> <p>Services that depend on Isst-dev-db, including:</p> <ul style="list-style-type: none"> <li>• Ispdev</li> </ul>	<b>RESOLVED</b>
19-Jul-2018 06:00	19-Jul-2018 10:00	Monthly Isst-dev maintenance	NCSA	<ol style="list-style-type: none"> <li>1. Dell firmware updates/reboots</li> <li>2. OS package updates/reboots <ol style="list-style-type: none"> <li>a. including upgrades to CentOS 7.5</li> </ol> </li> <li>3. GPFS client changes and upgrade to 4.2.3-9</li> <li>4. GPFS server upgrade to 4.2.3-9</li> </ol>	<p>ALL Isst-dev systems (incl. Isst-dev01, Isst-xfer, etc. as well as PDAC, verification, and Kubernetes clusters)</p> <p>The following systems <i>will</i> remain online and unaffected:</p> <ul style="list-style-type: none"> <li>• Isst-daq</li> <li>• Isst-I1-*</li> <li>• tus-ats01</li> </ul>	<p><b>COMPLETE</b></p> <p>DB services on Isst-dev-db will not start after maintenance, impacting dependent services such as Ispdev. This will be tracked in a separate status event.</p>
27-Jun-2018 07:00	27-Jun-2018 11:00	Ispdev outage	NCSA	<p>The Kubernetes head node unexpectedly rebooted at approximately 7:00 AM, causing a JupyterHub outage. Service was brought back online around 11:00 AM.</p>	Isst-kub0[01-20]	<b>COMPLETE</b>
27-Jun-2018 06:10	27-Jun-2018 06:30	Monitoring Update	NCSA	<p>First phase of enabling encryption on monitoring traffic</p>	Monitoring Dashboards	
21-Jun-2018 06:00	21-Jun-2018 07:35	Monthly Isst-dev maintenance	NCSA	<ol style="list-style-type: none"> <li>1. pfSense firewall update</li> <li>2. OS package updates/reboots for CentOS 6.9 servers (Isst-web, Isst-xfer, Isst-nagios)</li> <li>3. Slurm update (Isst-dev01, Isst-verify-worker*)</li> <li>4. Update host firewalls on GPFS servers</li> <li>5. iDRAC configuration updates on Isst-dev01 and ESXi hosts</li> </ol>	<p>CentOS 6.9 servers:</p> <ul style="list-style-type: none"> <li>• Isst-web</li> <li>• Isst-xfer</li> <li>• Isst-nagios</li> </ul> <p>Slurm/verification cluster</p> <p>Other impact is not expected but unexpected issues could lead to connectivity issues for other hosts or downtime for Isst-dev01 or hosted VMs</p>	<b>COMPLETE</b>
18-Jun-2018 11:00	19-Jun-2018 17:00	Nebula outage	NCSA	<p>Nebula is undergoing a complete reboot. Last week's storms damaged more than just one node initially thought to be affected.</p>	Nebula will be unavailable until 15:00 (5pm CDT)	<b>RESOLVED</b>
19-Jun-2018 06:00	19-Jun-2018 10:00	Level One Test Stand Maintenance	NCSA	<ol style="list-style-type: none"> <li>1. BIOS firmware updates</li> <li>2. Puppet and firewall changes (including support of SAL unicast/multicast traffic)</li> <li>3. OS package updates (staying with CentOS 7.4)</li> </ol>	<p>Level One Test Stand, including:</p> <ul style="list-style-type: none"> <li>• Isst-daq</li> <li>• Isst-I1-*</li> </ul>	<b>RESOLVED</b>
12-Jun-2018 ~01:40 PDT	12-Jun-2018 07:01 PDT	Storm outage of Kubernetes Commons & 75% of verification cluster compute nodes	NCSA	<p>A storm caused a power event at the NPCF datacenter taking down Kubernetes commons and Ispdev as well as 75% of the verification cluster compute nodes.</p>	<ul style="list-style-type: none"> <li>• Kubernetes Commons / Isst-Ispdev / kub*</li> <li>• 75% of verify-worker* / Slurm nodes</li> </ul>	<b>RESOLVED</b>
17-May-2018 11:30	17-May-2018 12:25	Grafana monitoring was offline	NCSA	<p>The influxdb data used by grafana monitoring was offline while it's storage was rebuilt</p>	<a href="https://monitor-ncsa.lsst.org/">https://monitor-ncsa.lsst.org/</a> monitoring data was offline	<b>RESOLVED</b>

17-May-2018 06:00	17-May-2018 1:30	Monthly lsst-dev maintenance	NCSA	<p>1. GPFS maintenance</p> <ul style="list-style-type: none"> <li>• Replace floor tile</li> <li>• GPFS service upgrade to 4.2.3-8</li> <li>• Rebuild of /lsst/backups structure</li> </ul> <p>2. PDAC Firewall maintenance for new vLANs</p> <p>3. BIOS Firmware updates (lsst-bastion01, lsst-sui*, lsst-qserv*, LevelOne Test Stand, lsst-dev-db)</p> <p>4. Node changes with reboots (all nodes)</p> <ul style="list-style-type: none"> <li>• switch to rsyslog v8 yum repository &amp; upgrade rsyslog (bastion01 &amp; kub, qserv, sui, verification clusters)</li> <li>• puppet-stdlib module update (lsst-dev01, lsst-dev-db, lsst-web, lsst-xfer, LevelOne Test Stand)</li> <li>• GPFS client upgrade (4.2.3-8) and nosuid mount option changes (lsst-dev01, lsst-qserv*, lsst-web, lsst-xfer, verification cluster)</li> <li>• NFS nosuid mount option changes of GPFS (lsst-demo01 and kub &amp; verification clusters)</li> <li>• enable PXE boot on new network interfaces (lsst-kub* &amp; lsst-backup01)</li> <li>• OS Updates (all nodes)</li> </ul>	<p>ALL lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC, verification, and Kubernetes clusters)</p> <p>The following systems <i>will</i> remain online and unaffected:</p> <ul style="list-style-type: none"> <li>• lsst-daq</li> <li>• lsst-I1-*</li> <li>• tus-ats01</li> </ul>	RESOLVED
30-Apr-2018 18:37	14-May-2018 15:00	Security & AA infrastructure offline	La Serena	<p>The Security &amp; AA infrastructure went offline around 18:37 Project Time. None of the infrastructure is accessible via the network.</p> <p>A UPS had to be replaced and an electrical circuit upgraded for the replacement UPS.</p>	None.	RESOLVED
11-Apr-2018 06:00	07-May-2018 10:30	production-size run (HSC-PDR1) on the verification cluster	NCSA	Per IHS-749, ~15 nodes of the batch compute resources will be reserved in order to complete HSC-PDR1 data runs. It is expected that the reservation can be scaled back to <10 after the first couple of weeks.	All systems available.	COMPLETE
25-Apr-2018 11:30	25-Apr-2018 12:40	Test new puppet changes for sssd and ldap access on SUI* nodes.	NCSA	A minor change to sssd service configuration needs to be rolled out to all nodes. The change will require a momentary outage of the sssd service and some actions will take longer (for a short period of time) as cache is repopulated. Changes in puppet structure (affecting ldap group sync) are also in need of testing and can happen simultaneously.	<p>Affected services:</p> <ul style="list-style-type: none"> <li>• Firefly proxy and tomcat services <ul style="list-style-type: none"> <li>• Some actions may appear slow while cache repopulates</li> </ul> </li> </ul>	COMPLETE
04/24 /2018 07:10	04/24 /2018 07:50	increased LDAP timeout to 60 seconds in sssd.conf	NCSA	<p>increased LDAP timeout to 60 seconds in sssd.conf to fix problems with long login times and failure to start batch jobs</p> <p>we will coordinate in the near future to apply the same change on qserv* &amp; sui*</p>	Affected nodes: kub*, verify-worker*	<p>RESOLVED</p> <p>All nodes are back in service, although affected nodes may have slow LDAP response times for a short while (due to local cache needing rebuilt).</p>
19 Apr 2018	19 Apr 2018	Monthly lsst-dev maintenance	NCSA	CANCELLED. No major work is needed and key personnel are travelling. Deployment of the new DTN and VM infrastructure will be delayed until after the May maintenance period.	N/A	CANCELLED
4/11 at 07:00	4/11 at 08:00	Firewall update at NCSA	NCSA	Per LSST-1257, the primary firewall needs to have its routing software updated. No failover is required and traffic will continue to flow through the primary firewall during the upgrade.	No outage or service disruption.	RESOLVED
4/3 /2018 16:40	4/3 /2018 16:45	LDAP problems	NCSA	Causing new logins to the LSST resources at NCSA to hang.	new logins can't take place right now.	fixed.
3/26 /2018 08:00	4/2 /2018 9:00	A filesaver on Nebula became unstable, resulting in diminished performance for some instances and volumes.	NCSA	Any instances or volumes hosted on the healing filesystem will be impacted, or approximately 20% of instances and volumes.		We are migrating instances around to speed up the process.
3/15 /2018 10:20 am PT	3/15 /2018 14:20 am PT	Lingering issues on select nodes following March PM	NCSA	Select nodes had issues coming out of the PM.	<ul style="list-style-type: none"> <li>• lsst7 - issue w/ sshd</li> </ul>	RESOLVED

3/15 /2018 10:20 am PT	3/15 /2018 11:23am PT	Lingering issues on select nodes following March PM	NCSA	Select nodes had issues coming out of the PM.	<ul style="list-style-type: none"> <li>lsst-qserv-master01 - cannot mount local /qserv volume</li> <li>lsst-xfer - issue w/ sshd</li> <li>lsst-dts - issue w/ sshd</li> <li>lsst-l1-cl-dmcs - unknown issue</li> </ul>	RESOLVED
3/15 /2018 6:00 am PT	3/15 /2018 10:20 am PT	March lsst-dev maintenance (regular schedule)	NCSA	<ul style="list-style-type: none"> <li>GPFS server updates and configuration of additional NFS/Samba services</li> <li>Urgent Firmware updates</li> <li>Increase size of /tmp on lsst-dev01</li> <li>Hardware maintenance/memory increases on select servers/VMs</li> <li>Release of refactored Puppet code</li> <li>OS updates</li> <li>Recabling servers in dev server room to new switches</li> </ul>	Systems/services that were NOT be available: ALL lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC and the verification and Kubernetes clusters)	Select nodes (lsst-qserv-master01, lsst7, lsst-xfer, lsst-dts, lsst-l1-cl-dmcs) required additional attention following the PM, as noted in a separate status entry.
3/12 /2018 7:00 am PT	3/12 /2018 3:00pm PT	nebula (Open stack resource) is down	NCSA	Nebula is being taken down for patches to be applied across the whole infrastructure.	All containers on Nebula are going down.	COMPLETE
07 Mar 2018 13:00	07 Mar 2018 14:10	qserv-db12 maintenance	NCSA	qserv-db12 had one failed drive in the OS mirror replaced but the other is presenting errors as well so the RAID cannot rebuild. The node was taken down for replacement of the 2nd disk, to rebuild the RAID in the OS volume, and to reinstall the OS.	qserv-db12	COMPLETE
28 Feb 2018 09:02	28 Feb 2018 09:21	lsst-dev01 Out of Space	NCSA	The main / drive partition ran out of space due to a user's faulty pip build. The faulty files were moved elsewhere for the user to review.	lsst-dev01	COMPLETE
27 Feb 2018 08:40	27 Feb 2018 09:40	Puppet maintenance at NCSA	NCSA	Enable environment isolation on puppet master	No outage or service disruption is expected.	COMPLETE
23 Feb 2018 06:00	23 Feb 2018 07:00	Puppet updates	NCSA	Rolled out significant logic and organization of the Puppet resources in NCSA 3003 data center in order to standardize between LSST Puppet environments at NCSA. We had done extensive testing and did not expect any outages or disruption of services.	None  Changes were applied to: lsst-dev01, lsst-dev-db, lsst-web, lsst-xfer, lsst-dts, lsst-demo, L1 test stand, DBB test stand, elastic test stand.	COMPLETE
15 Feb 2018 12:55	15 Feb 2018 13:18	lsst-dev-db crashed	NCSA	The developer MySQL server lost network and crashed.	lsst-dev-db MySQL database	RESTORED
15 Feb 2018 06:00	15 Feb 2018 11:00	February lsst-dev maintenance (regular schedule)	NCSA	<ul style="list-style-type: none"> <li>Updating GPFS mounts to access new storage appliance</li> <li>Rewire 2 PDUs in dev server room (hosts lsst-dev01, lsst-xfer, etc.)</li> <li>Switch stack configuration changes in dev server room (hosts lsst-dev01, lsst-xfer, etc.)</li> <li>Routine system updates</li> <li>Firewall maintenance at datacenter (hosts PDAC, verification cluster, etc.)</li> <li>Updates to system monitoring</li> </ul>	Systems/services that will NOT be available: all lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC and the verification cluster)	<ul style="list-style-type: none"> <li>NOTE: GPFS was not remounted on qserv-dax01 until 4:27pm</li> </ul>
31 Jan 2018 , 08:00	31 Jan 2018 , 08:30	Slurm reconfiguration	NCSA	The slurm scheduler on the verification cluster will be repartitioned from one queue (debug) into two:  debug: 3 nodes, MaxTime=30 min  normal: 45 nodes, MaxTime=INFINITE	No outages	COMPLETE
Wed 1 /24 /2018 13:35	Wed 1 /24 /2018 14:55	Loss of LSST NFS services	NCSA	All NFS mounts for LSST systems were not working	NFS access on lsst-demo and lsst-SUI were not working	RESTORED
18 Jan 2018 16:40	18 Jan 2018 21:00	Firewall outage	NCSA	Both pfSense firewalls were accidentally powered off.	PDAC (Qserv & SUI) and verification clusters were inaccessible, as well as introducing GPFS issues across many services, e.g. lsst-dev01.	RESTORED
18 Jan 2018 06:00	18 Jan 2018 08:00	January lsst-dev maintenance (regular schedule)	NCSA	<ul style="list-style-type: none"> <li>Routine system updates</li> </ul>	Systems/services that will NOT be available: all lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC and the verification cluster)	COMPLETE
11 Jan 2018 06:00	11 Jan 2018 11:30	Critical patches on lsst-dev systems (incl. kernel updates)	NCSA	<ul style="list-style-type: none"> <li>Update kernel and system packages to address a security vulnerability.</li> </ul>	Systems/services that will NOT be available: all lsst-dev systems (incl. lsst-dev01, lsst-xfer, etc. as well as PDAC and the verification cluster)	COMPLETE
02 Jan 2018 09:00	05 Jan 2018 17:00	Nebula	NCSA	Nebula (OpenStack) will be shut down for hardware and software maintenance from January 2nd, 2018 at 9am until January 5th, 2018 at 5pm.	All Nebula systems unavailable.	COMPLETE



Saturday 23 Dec 2017	Tuesday 02 Jan 2018	Support over holiday break	NCSA	2017-12-22 to 2018-1-01 (inclusive) is the University holiday period. Services will be operational. Please report problems via the JIRA IHS queue. The queue will be monitored by NCSA staff and users will be notified via Jira as to if or when their issue can be addressed.	All services will be operational.	<b>COMPLETE</b>
Wednesday 20 Dec 2017 06:00	Wednesday 20 Dec 2017 08:00	NFS Server switch	NCSA	NFS services will be moved to a different host	brief outage of NFS services to SUI nodes, lsst-demo, lsst-demo2	<b>COMPLETED</b>
Wednesday 20 Dec 2017 06:00	Wednesday 20 Dec 2017 07:00	Firewall drive replacement	NCSA	Current pfSense has a bad drive. If it fails, all nodes behind the firewall will be inaccessible. There are redundant firewalls, no service interrupts are expected.	None Expected	<b>COMPLETED</b>
Thursday 2017- 12-14 04:00	Thursday 2017- 12-14, <del>10:00</del> 19:00	December lsst-dev maintenance  (off- schedule)	NCSA	<ul style="list-style-type: none"> <li>Due to holiday schedules, the December maintenance event is being moved up 1 week, from 2017-12-21 to 2017-12-14</li> <li>Routine system updates</li> <li>Network switch replacement</li> <li>lsst-db server replacement</li> <li>Further details <a href="#">here</a></li> </ul>	Do not expect any lsst-dev system to be available during this period.	<b>COMPLETED</b>
Tuesday 2017- 11-28, 10:00	TBD	Rolling reboots of PDAC qserv nodes	NCSA	<ul style="list-style-type: none"> <li>In order to address a spontaneous rebooting issue with some qserv nodes, firmware upgrades are being performed.</li> </ul>	The occasional qserv node will need to be rebooted. Experience with the first couple will allow NCSA to give more precise information on the order and timing of the reboots.	<b>COMPLETED</b>
2017- 11-20 7: 00	2017- 11-20 14:00	Nebula Openstack cluster	NCSA	Nebula OpenStack cluster will be unavailable for emergency hardware maintenance. A failing RAID controller from one of the storage nodes and a network switch will be replaced.	Not all instances will be impacted. If any running Nebula instances are affected by the outage they will be shut down, then restarted again after we finish maintenance that day.	<b>COMPLETED</b>
Thursday 2017- 11-16 06:00	Thursday 2017- 11-16 10:00	<b>Extended</b> monthly lsst- dev maintenance	NCSA	<ul style="list-style-type: none"> <li>Routine system updates.</li> <li>Due to the volume of work that needs to be done, this event is being extended by 2 hrs. If systems become available before the end of the maintenance window, we will announce it here.</li> <li><b>Be aware that this event will include an off-schedule purge of items in /scratch older than 180 days.</b></li> </ul>	Do not expect any lsst-dev system to be available during this period.	<b>COMPLETED</b>
2017- 10-31		NFS instability	NCSA	NFS becomes intermittently unresponsive.		<b>-STABLE</b>  We are guardedly optimistic that this problem has been resolved. PDAC is now utilizing native GPFS mounts.
2017- 10-24 09:50	LSST	GPFS outage	NCSA	All LSST nodes from NCSA 3003 (e.g., lsst-dev01/lsst-dev7) and NCPF (verify-worker, PDAC) that connect to GPFS (as GPFS or NFS) have lost their connection.	GPFS	<b>ONLINE</b>  Storage is working to bring GPFS back online
2017- 10-21 17:15	LSST	public /protected network switch is down in rack N76 at NCPF		nodes cannot communicate DNS, LDAP, etc. so largely cannot communicate with other nodes, e.g., no communication between affected verify-worker nodes and the Slurm scheduler on lsst-dev01, no communication between affected qserv-db nodes and the rest of qserv	Effectively, the whole verification cluster	<b>RESTORED</b>  in progress, replacement switch is on order  Workaround in progress. If all goes well, systems should be back online by late afternoon.
2017- 10-19 06:00	2017- 10-19 14:00	qserv- master replacement	NCSA	qserve-master will be down so that systems engineering can finish configuring the new server and xfering files. Status updates here:  <a href="#">IHS-378</a> - Getting issue details... <b>STATUS</b>	qserv-master will be down for this entire period	<b>COMPLETE</b>

#### Archived events

## DM Meetings and Events

- [Conferences and Workshops with DM Involvement](#)
- [Official LSST Project Events](#)