

# NCSA Allocations

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## Illinois Allocation Requests

To get started with Illinois allocations, **request an NCSA Kerberos account at [this link](#)**. Account creation may take up to 24 hours once requested.

Once your user account has been created, you can submit proposals for open Illinois allocation requests by visiting the [NCSA XRAS Submit](#) portal.

The table below contains upcoming/recent periodic allocation requests periods for Illinois users. For a complete list of available resources, view the [NCSA Resources](#) section below.

Open Resource Allocations	Open Request Period	Access
<a href="#">Delta Illinois</a>	June 1 to August 21	Allocation awarded by NCSA to University of Illinois Urbana campus researchers

## XSEDE Allocation Requests

To get started with XSEDE allocations, **see the [Getting Started with XSEDE](#) page** on the XSEDE User Portal.

XSEDE resources are allocated through [Research](#) and [Education](#) allocations on a [quarterly allocation schedule](#):

Submission Period	Meeting Date	Users Notified	Allocation Begin Date
Dec 15 thru Jan 15	Early March	March 15	April 1
Mar 15 thru Apr 15	Early June	June 15	Jul 1
Jun 15 thru Jul 15	Late August/Early September	September 15	Oct 1
Sep 15 thru Oct 15	Early December	December 15	Jan 1

Note that new users are strongly encouraged to seek a [Startup Allocation](#) before requesting a Research Allocation.

You can also obtain access to XSEDE resources through your [Campus Champion](#). You can find out who your local Campus Champion is [at this link](#).

## NCSA Resources

NCSA offers access to a variety of resources that can be requested through the XSEDE program, or, by University of Illinois users through our Illinois allocations.

Name /URL	Type	Description	Primary Use Cases	Hardware /Storage	Allocation Period	Access	User Documentation	User Support
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<p><b>Delta XSEDE</b></p>	<p>HPC</p>	<p>A computing and data resource that balances cutting-edge graphics processor and CPU architectures that will shape the future of advanced research computing. Made possible by the <a href="#">National Science Foundation</a>, Delta will be the most performant GPU computing resource in NSF's portfolio.</p>	<p><i>Coming soon!</i></p>	<ul style="list-style-type: none"> <li>• 124 CPU nodes</li> <li>• 100 quad A100 GPU nodes</li> <li>• 100 quad A40 GPU nodes</li> <li>• Five eight-way A100 GPU nodes</li> <li>• One MI100 GPU node</li> <li>• Eight utility nodes will provide login access, data transfer capability and other services</li> <li>• 100 Gb/s HPE SlingShot network fabric</li> <li>• 7 PB of disk-based Lustre storage</li> <li>• 3 PB of flash based storage for data intensive workloads to be deployed in the fall of 2021</li> </ul>	<p><a href="#">XSEDE Quarterly Allocation</a></p>	<p>Allocation awarded by XSEDE</p>	<p><a href="#">Getting Started on XSEDE</a></p>	<p><a href="mailto:help@xsede.org">help@xsede.org</a></p>
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<p><b>Delta Illinois</b></p>	<p>HPC</p>	<p>A computing and data resource that balances cutting-edge graphics processor and CPU architectures that will shape the future of advanced research computing. Made possible by the <a href="#">National Science Foundation</a>, Delta will be the most performant GPU computing resource in NSF's portfolio.</p>	<p><i>Coming soon!</i></p>	<ul style="list-style-type: none"> <li>• 124 CPU nodes</li> <li>• 100 quad A100 GPU nodes</li> <li>• 100 quad A40 GPU nodes</li> <li>• Five eight-way A100 GPU nodes</li> <li>• One MI100 GPU node</li> <li>• Eight utility nodes will provide login access, data transfer capability and other services</li> <li>• 100 Gb/s HPE SlingShot network fabric</li> <li>• 7 PB of disk-based Lustre storage</li> <li>• 3 PB of flash based storage for data intensive workloads to be deployed in the fall of 2021</li> </ul>	<p><a href="#">Biannual Delta Illinois Allocation Period</a></p>	<p>Allocation awarded by NCSA - see Illinois Allocations section below</p>	<p><i>Coming soon!</i></p>	<p><i>Coming soon!</i></p>
<p><b>Radiant</b></p>	<p>HPC</p>	<p>Radiant is a new private cloud computing service operated by NCSA for the benefit of NCSA and UI faculty and staff. Customers can purchase VM's, computing time in cores, storage of various types and public IP's for use with their VM's.</p>	<p><a href="#">Radiant Use Cases</a></p>	<ul style="list-style-type: none"> <li>• 140 nodes</li> <li>• 3360 cores</li> <li>• 35TB Memory</li> <li>• 25GbE /100GbE backing network</li> <li>• 185TB Usable flash capacity</li> <li>• access to NCSA's 10PB+ (and growing) center-wide storage infrastructure /archive</li> </ul>	<p>Open Continuously</p>	<p>Cost varies by the Radiant resource requested - see the <a href="#">Radiant wiki page</a> for more details</p>	<p><a href="#">Radiant</a></p>	<p><a href="#">Radiant</a></p>

<b>NCSA Illinois Campus Cluster Investment</b>	HPC	NCSA has purchased 20 nodes that affiliates may request access to: <a href="https://campuscluster.illinois.edu/new_forms/user_form.php">https://campuscluster.illinois.edu/new_forms/user_form.php</a>  Alternatively, individuals, groups, and campus units can invest in compute and storage resources on the cluster or purchase compute time on demand or storage space by the terabyte/month.	ICCP Use Cases	8 nodes with: 6 4GB memory, InfiniBand interconnect, 20 cores (E2670V2 CPU), Tesla K40M GPU  8 nodes with: 6 4GB memory, InfiniBand interconnect, 20 cores (E2670V2 CPU), No GPU  4 nodes with: 2 56GB memory, InfiniBand interconnect, 24 cores (E2690V3 CPU), No GPU	Open Continuously	Cost to purchase nodes, storage, or usage on-demand	Illinois Campus Cluster Program Resources	help@campuscluster.illinois.edu
<b>Illinois HTC Program</b>	HTC	The High Throughput Computing (HTC) Pilot program is a collaborative, volunteer effort between Research IT, Engineering IT Shared Services, and NCSA. The computing systems that comprise the HTC Pilot resource are retired compute nodes from the Illinois Campus Cluster Program (ICCP) or otherwise idle workstations in Linux Workstation labs.	The HTC service is not intended to run MPI jobs	300 compute nodes with 12-core Intel Xeon X5650 @2.67GHz and 24 GB RAM. Of those, ~2 have 48 GB RAM and ~1 have 96 GB RAM	Open Continuously	Allocation awarded by University of Illinois Urbana campus	HTC User Documentation	htc@lists.illinois.edu
<b>Nightingale</b>	HIPAA HPC	HIPAA secure computation environment			Open Continuously	Cost to purchase nodes and storage		
<b>XSEDE Startup Allocation</b>	HPC	Startup allocations, along with Trial allocations, are one of the fastest ways to gain access to and start using XSEDE-allocated resources. We recommend that all new XSEDE users begin by requesting Startup allocation.	XSEDE Use Cases	XSEDE ecosystem	Open Continuously	Allocation awarded to new users by XSEDE	Getting Started on XSEDE	help@xsede.org
<b>Campus Champion Allocation</b>	HPC	Your local Campus Champion can share their XSEDE allocation, find out who your local Campus Champion is	XSEDE Use Cases	XSEDE ecosystem	Open Continuously	Allocation awarded by your Campus Champion	Getting Started on XSEDE	help@xsede.org
<b>XSEDE Research Allocation</b>	HPC	The XSEDE ecosystem encompasses a broad portfolio of resources operated by members of the XSEDE Service Provider Forum. These resources include multi-core and many-core high-performance computing (HPC) systems, distributed high-throughput computing (HTC) environments, visualization and data analysis systems, large-memory systems, data storage, and cloud systems. Some resources provide unique services for Science Gateways. Some of these resources are made available to the user community through a central XSEDE-managed allocations process, while many other resources operated by Forum members are linked to other parts of the ecosystem.	XSEDE Use Cases	XSEDE ecosystem	XSEDE Quarterly Allocation	Allocation awarded by XSEDE	Getting Started on XSEDE	help@xsede.org
<b>XSEDE Education Allocation</b>	HPC	Education allocations are for academic courses or training activities that have specific begin and end dates. Instructors may request a single resource or a combination of resources. Education requests have the same allocation size limits as Startup requests; per resource limits are in the Startup Limits table. As with Startup requests, Educational requests are limited to no more than three separate computational resources, unless the abstract explicitly justifies the need for each resource to the reviewers' satisfaction.	XSEDE Use Cases	XSEDE ecosystem	Open Continuously	Allocation awarded by XSEDE	Getting Started on XSEDE	help@xsede.org
<b>Research IT Software Collaborative Services</b>	Support	Getting Hands-On Programming Support for performance analysis, software optimization, efficient use of accelerators, I/O optimization, data analytics, visualization, use of research computing resources by science gateways, and workflows	Coming soon!	N/A	Open Continuously	Allocation awarded by campus Research IT	Research Software Collaborative Services	research-it@illinois.edu

<b>Granite</b>	Archive Storage	<i>Granite</i> is NCSA's Tape Archive system, closely integrated with <i>Taiga</i> , to provide users with a place to store longer term archive datasets. Access to this tape system is available directly via tools such as scp, Globus, and S3. Data written to Granite is replicated to two tapes for mirrored protection in case of tape failure.	<ul style="list-style-type: none"> <li>• Storage of infrequently accessed data</li> <li>• Disaster Recovery</li> <li>• Archive Datasets</li> </ul>	<ul style="list-style-type: none"> <li>• 19 Frame Spectra TFinity Library</li> <li>• 40PB of replicated capacity on TS1140 (JAG 7) media</li> <li>• Managed by Versity's ScoutFS /ScoutAM products.</li> </ul>	Open Continuously	Internal Rate: \$16 /TB/Year  External Rate: Contact Support	<a href="#">Taiga &amp; Granite Documentation</a>	<a href="mailto:set@ncsa.illinois.edu">set@ncsa.illinois.edu</a>
<b>Taiga</b>	Storage	<i>Taiga</i> is NCSA's Global File System that is able to integrate with all non-HIPAA environments in the National Petascale Computation Facility. Built with SSUs (Scaleable Storage Units) spec'd by NCSA engineers with DDN, it provides a center-wide, single-namespace file system that is available to use across multiple platforms at NCSA. This allows researchers to access their data on multiple systems simultaneously; improving their ability to run science pipelines across batch, cloud, and container resources. <i>Taiga</i> is also well integrated with the <i>Granite</i> Tape Archive to allow users to readily stage out data to their tape allocation for long term, cold storage.	<ul style="list-style-type: none"> <li>• Active Research and Project Data</li> <li>• Visualization Data</li> </ul>	<ul style="list-style-type: none"> <li>• 10PB of hybrid NVME /HDD storage based on two Taiga SSU's</li> <li>• Backed by HDR Infiniband</li> <li>• Running DDN's Lustre ExaScaler appliance</li> </ul>	Open Continuously	Internal Rate: \$32 /TB/Year  External Rate: Contact Support	<a href="#">Taiga &amp; Granite Documentation</a>	<a href="mailto:set@ncsa.illinois.edu">set@ncsa.illinois.edu</a>
<b>HAL</b>								
<b>ISL</b>								
<b>SPIN</b>								
<b>DCCR</b>								
<b>Open Storage Network (OSN)</b>								
<b>VLAD</b>								
<b>Kingfisher</b>								

Please contact [help@ncsa.illinois.edu](mailto:help@ncsa.illinois.edu) if you have any questions or need help getting started with NCSA resources.