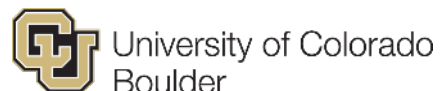
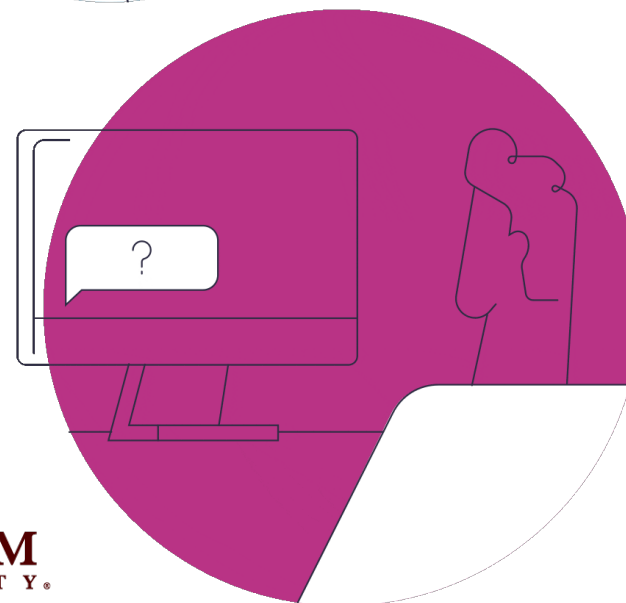
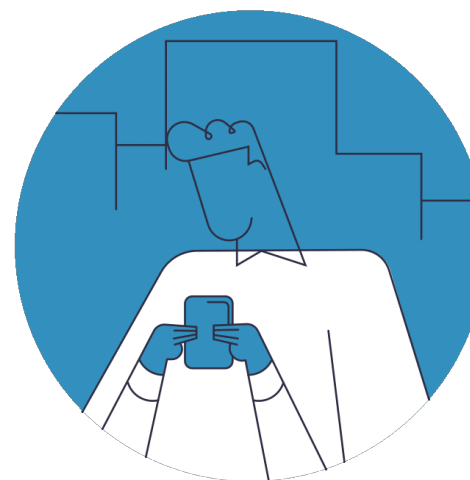




Open OnDemand Tutorial

*Alan Chalker, Emily Moffat Sadeghi,
Ron Davies, Jeff Ohrstrom*



This work is supported by the National Science Foundation of the United States under the awards 1534949, 1835725, 2138286, 2303692, and 2411375-7

openondemand.org

Tutorial Menti

Instructions

Go to

www.menti.com

Enter the code

6806 2271



Or use QR code

Agenda

About Open OnDemand

Tutorial Part 1 – Demonstration
and Developer Dashboard

Break

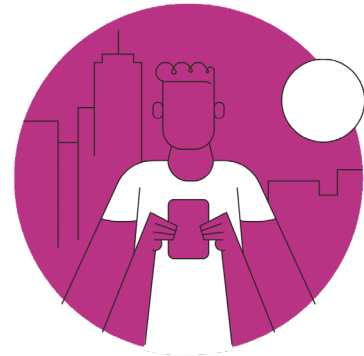
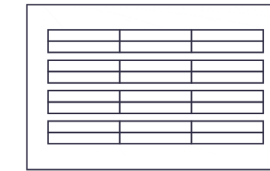
Tutorial Part 2 – Apps!

Wrap Up



Run Open OnDemand

Access your organization's supercomputers through the web to compute from anywhere, on any device.



Zero installation

Run Open OnDemand entirely in your browser. No client software installation required.

Easy to use

Start computing immediately. A simple interface makes Open OnDemand easy to learn and use.

Compatible with any device

Launch on any device with a browser—even a mobile phone or tablet.

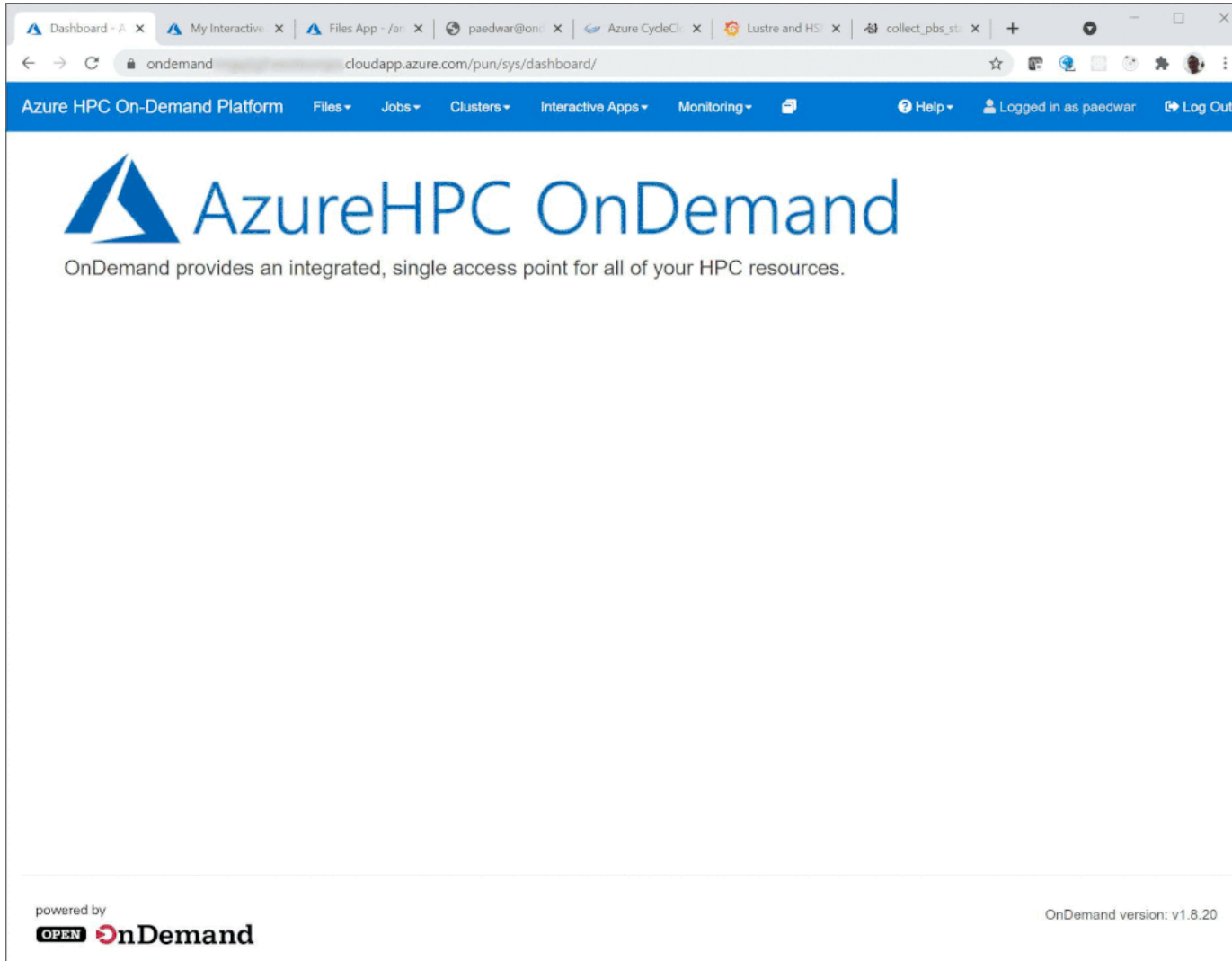
openondemand.org/run

Any Device, Anywhere



openondemand.org/anydevice

Commercial Cloud



openondemand.org/aws



openondemand.org/azure



openondemand.org/gcp

NSF ACCESS

OPEN  nDemand



Hive



Rockfish



ACES &
FASTER



Anvil



Bridges-2 &
Neocortex



KyRIC



Delta



Ookami



Expanse





openondemand.org/access

National AI Resources

NAIRR Pilot

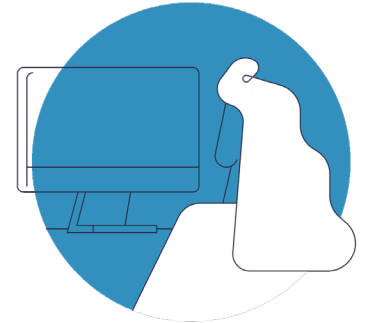
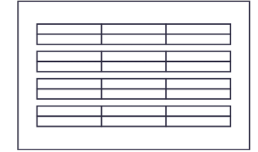
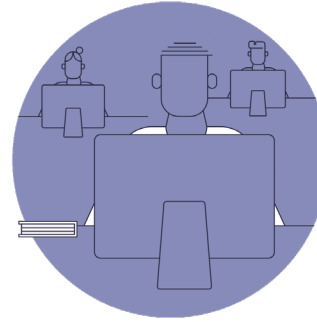
National Artificial Intelligence
Research Resource Pilot

	Indiana Jetstream2 GPU	▼
	NCSA Delta GPU	▼
	NCSA DeltaAI	▼
	PSC Bridges-2 Extreme Memory (PSC Bridges-2 EM)	▼
	PSC Bridges-2 GPU (PSC Bridges-2 GPU)	▼
	PSC Bridges-2 Regular Memory (PSC Bridges-2 RM)	▼
	Purdue Anvil AI	▼
	Purdue Anvil CPU	▼
	Purdue Anvil GPU	▼
	SDSC Expanse CPU	▼
	SDSC Expanse GPU	▼
	PSC Neocortex CS-2	▼
	SDSC Voyager (Habana Training and Inference Processor based AI System)	▼
	TAMU ACES	▼

	Amazon Web Services	▼
	Cerebras Wafer-Scale Engine 2 (CS-2) AI Accelerator	▼
	DOE Argonne National Laboratory AI Testbed	▼
	Google Cloud Platform	▼
	Groq LPU Inference Engine	▼
	Microsoft Azure	▼
	NVIDIA DGX Cloud	▼
	SambaNova Cloud (API Services for Llama, DeepSeek, Tulu, Qwen, etc.)	▼
	SambaNova Suite (LLMOps platform, fine-tuning, inference and app dev kits)	▼
	TACC Frontera	▼
	TACC Frontera GPU	▼
	TACC Lonestar6	▼
	TACC Lonestar6-GPU	▼
	TACC Vista (NVIDIA GH100 Grace Hopper Superchip)	▼

Install Open OnDemand

Administer remote web access to your supercomputers to transform the way users work and learn.



Low barrier to entry

Empower users of all skill levels by offering an alternative to command-line interface.

Free and open source

Install Open OnDemand for free, and gather knowledge from our large open-source community.

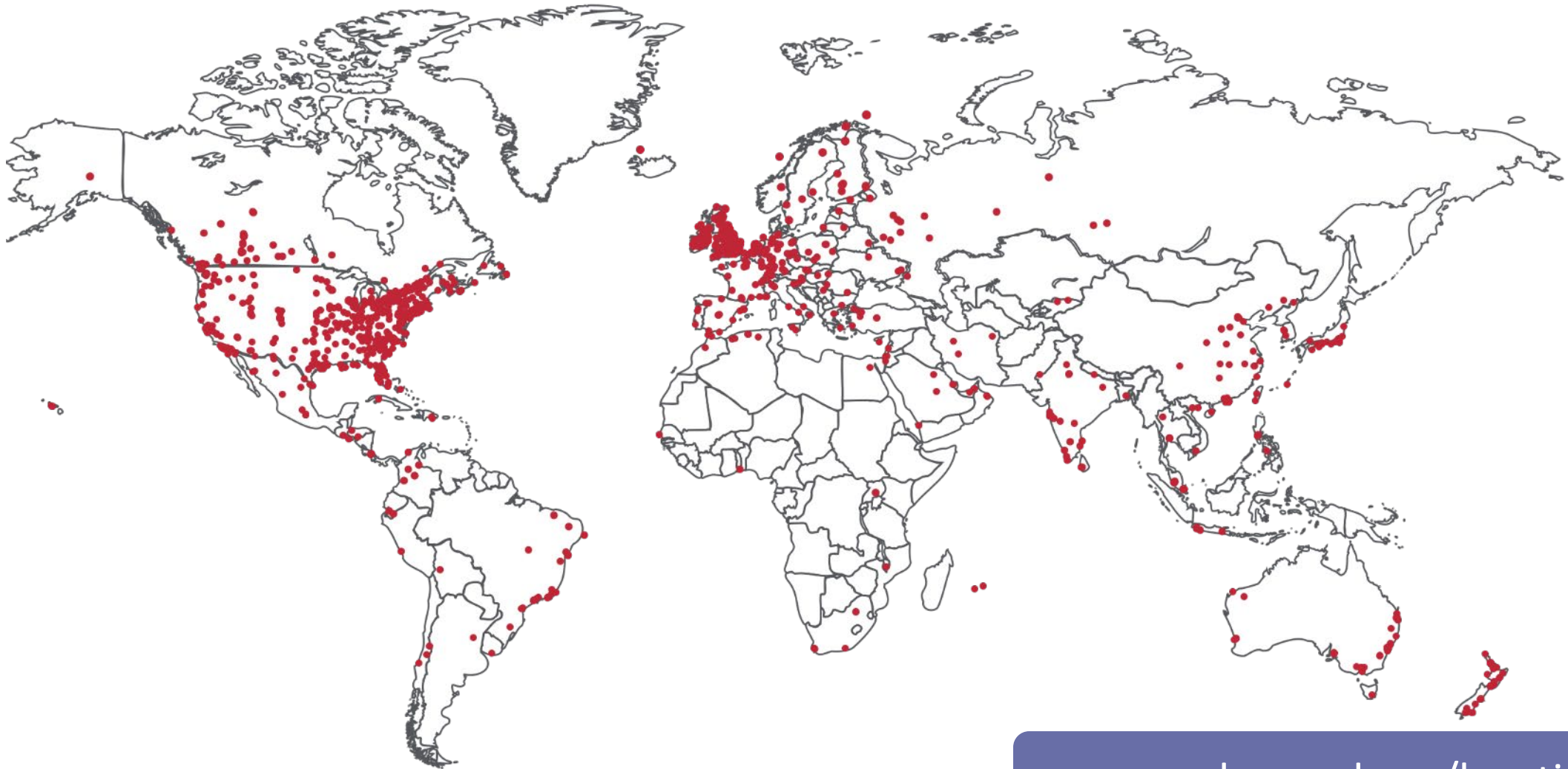
Configurable and flexible

Create and deploy your own applications to meet your users' unique needs.

openondemand.org/install

Deployed Worldwide

100+ Countries | 2,100+ Organizations



openondemand.org/locations

Example Deployments

Nonprofit / Research centers



International academia



Government



Minority-serving institutions



Private academia



Public academia



Industry



openondemand.org/orgs

Sample Deployments

OSC OnDemand

Files

Jobs

Clusters

Interactive Apps


My Interactive Sessions

All Apps

Help


Logged in as emoffat

Log Out




OnDemand provides an integrated, single access point for all of your HPC resources.


Recently Used Apps




Code Server
System Installed App



Blender
System Installed App



Ascend Desktop
System Installed App



RStudio Server
System Installed App

Message of the Day

2025-05-15 - Instability on Clusters after May 13 Downtime

We've been experiencing some instability on the clusters (particularly Cardinal and Ascend) following the recent May 13 downtime, especially with parallel job processing. If you notice any unusual behavior with your jobs, please contact OSC Help.

2025-04-16 - Upcoming OS Migration May Impact Classroom Services

We will perform an OS migration that will affect our classroom services. If you plan to run classroom projects at OSC using the Jupyter or RStudio app this summer, please contact oschelp@osc.edu as soon as possible so we can plan accordingly.

2024-07-22 - Change is Coming!

Later this fall, OSC will be introducing a major change to the current process clients use to get help. We will be rolling out a new web-based system for clients to manage and review open cases with the service desk. More information will be forthcoming over the next few months, so keep an eye out for messages on various OSC communication channels, as well as at https://www.osc.edu/service_portal_deployment.

Looking for a classroom?

[Go to class.osc.edu](#)

Jobs Efficiency Report - 2025-4-28 to 2025-5-28 [Open XDMoD](#)


No data available.

Core Hours Efficiency Report - 2025-4-28 to 2025-5-28 [Open XDMoD](#)

No data available.

Recently Completed Jobs - 2025-4-28 to 2025-5-28 [Open XDMoD](#)

ID	Name	Date
No data available.		

powered by
OPEN  nDemand

OnDemand version: 4.0.3

Sample Deployments

OSC OnDemand

Files

Jobs

Clusters

Interactive Apps


My Interactive Sessions

All Apps

Help

Logged in as emoffat

Log Out



Apps

Files

Jobs

Clusters

Interactive Apps

My Interactive Sessions

Help

Logged in as

Log Out


Quota limit warning for

Reload page to see updated quota information. Quota information is updated every few minutes.

Using 428 GB of quota 500 GB . Consider deleting or archiving files to free up disk space.

85%


OPEN

 nDemand


OnDemand provides an integrated, single access point for all of your HPC resources.

Pinned Apps


A featured subset of [all available apps](#)




Abaqus GUI
System Installed App




Ansys Workbench GUI
System Installed App




Mathematica GUI
System Installed App



Matlab GUI
System Installed App



Stata GUI
System Installed App



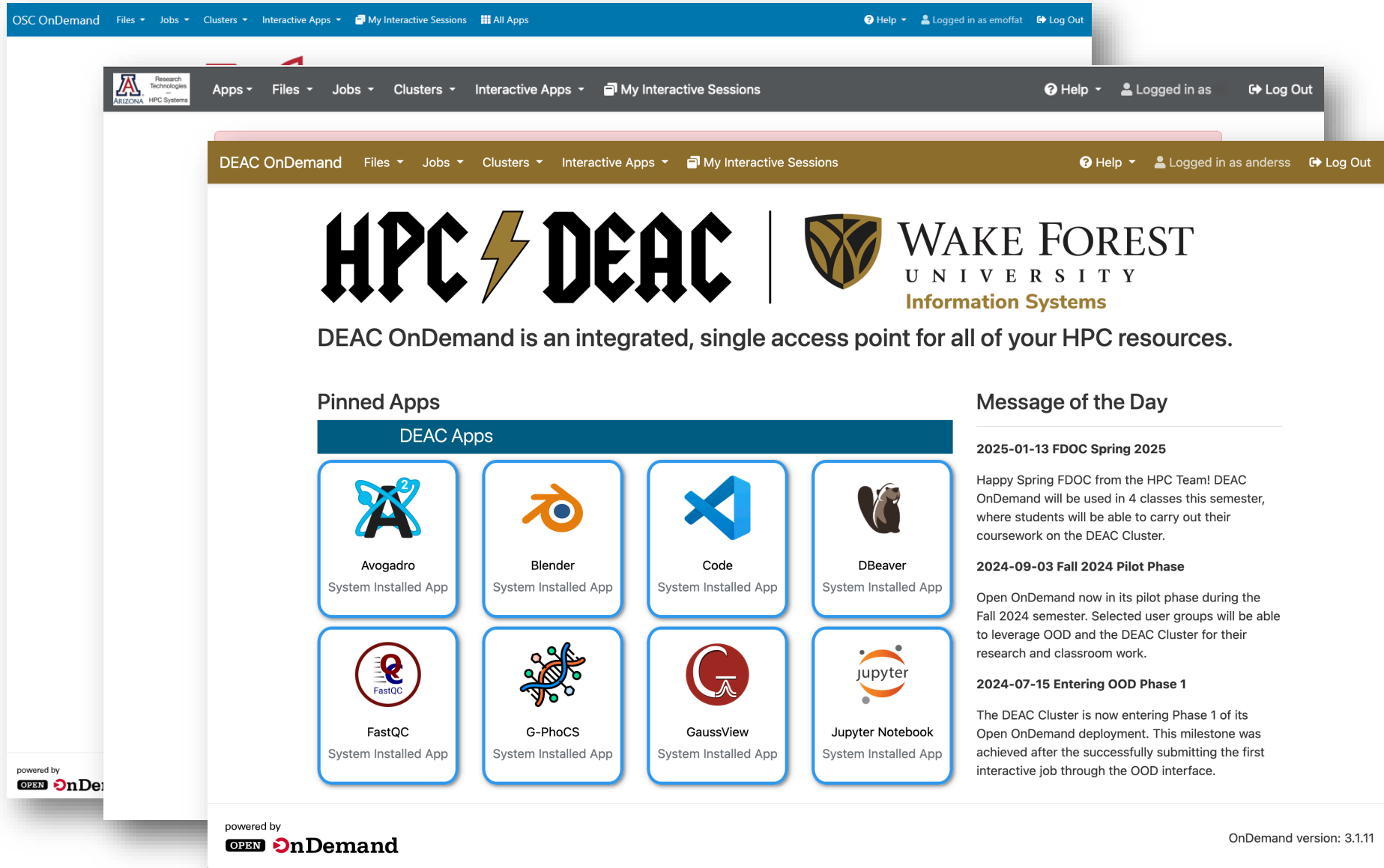
VSCode GUI
System Installed App

Recently Completed Jobs - 2025-6-17 to 2025-7-17

Open XDMoD

ID	Name	Date
----	------	------

Sample Deployments




OSC OnDemand Files Jobs Clusters Interactive Apps My Interactive Sessions All Apps Help Logged in as emoffat Log Out

Research Technologies ARIZONA HPC Systems Apps Files Jobs Clusters Interactive Apps My Interactive Sessions Help Logged in as Log Out

DEAC OnDemand Files Jobs Clusters Interactive Apps My Interactive Sessions Help Logged in as anderss Log Out

HPC DEAC











WAKE FOREST UNIVERSITY

Information Systems

DEAC OnDemand is an integrated, single access point for all of your HPC resources.

Pinned Apps

DEAC Apps

 Avogadro System Installed App	 Blender System Installed App	 Code System Installed App	 DBeaver System Installed App
 FastQC System Installed App	 G-PhoCS System Installed App	 GaussView System Installed App	 Jupyter Notebook System Installed App

Message of the Day

2025-01-13 FDOC Spring 2025


Happy Spring FDOC from the HPC Team! DEAC OnDemand will be used in 4 classes this semester, where students will be able to carry out their coursework on the DEAC Cluster.


2024-09-03 Fall 2024 Pilot Phase

Open OnDemand now in its pilot phase during the Fall 2024 semester. Selected user groups will be able to leverage OOD and the DEAC Cluster for their research and classroom work.

2024-07-15 Entering OOD Phase 1

The DEAC Cluster is now entering Phase 1 of its Open OnDemand deployment. This milestone was achieved after the successfully submitting the first interactive job through the OOD interface.

powered by  nDemand

powered by  nDemand

OnDemand version: 3.1.11

and.org

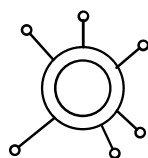
Site Configuration

Known authentication protocols and solutions

OIDC/OAuth 2.0, CAS, SAML, LDAP and Kerberos
Shibboleth, Dex, Keycloak, ADFS, Microsoft Entra ID, and CAS

Known scheduler integrations

Slurm, Torque, PBSPro, LSF, Grid Engine, Linux Host, Cloudy Cluster, Kubernetes, Systemd



Enabled Utilities & Apps



Abaqus



AMDuProf



ANSYS



Arm



BEAST 2



Blender



CHIMERA



COMSOL



Coot



DeepLabCut



Eclipse



Firefox



Galaxy



GaussView



Grace



GSEA



IDL



Jupyter



LS-DYNA



Lumerical



Maestro



Mathematica



MATLAB



Maya



Meshroom



MRICron



NetLogo



Nsight Eclipse



Octave



OVITO



ParaView



PseudoFuN



PSPP



PyCharm



PyMOL



QGIS



RELION



RStudio



Schrodinger



Shiny



Siril



STAR-CCM+



Stata



TensorBoard



Visit



Visual Studio Code



VMD



WebMO

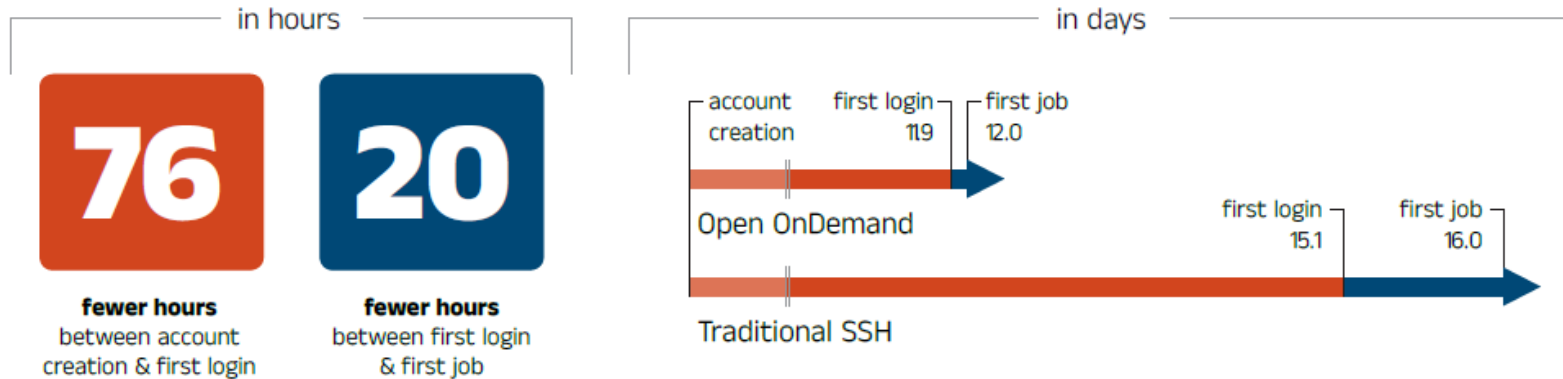


XDMoD

openondemand.org/apps

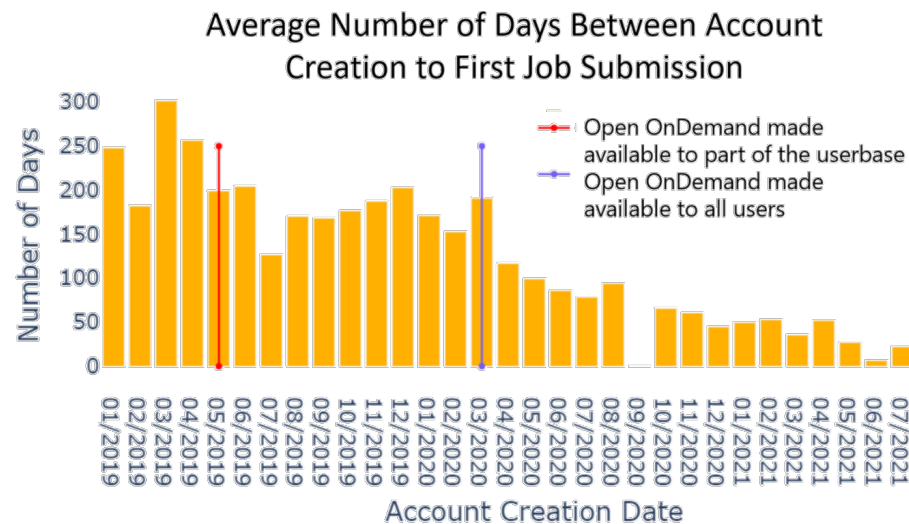
Science Impact

Faster time to science Using OnDemand vs. traditional SSH access*



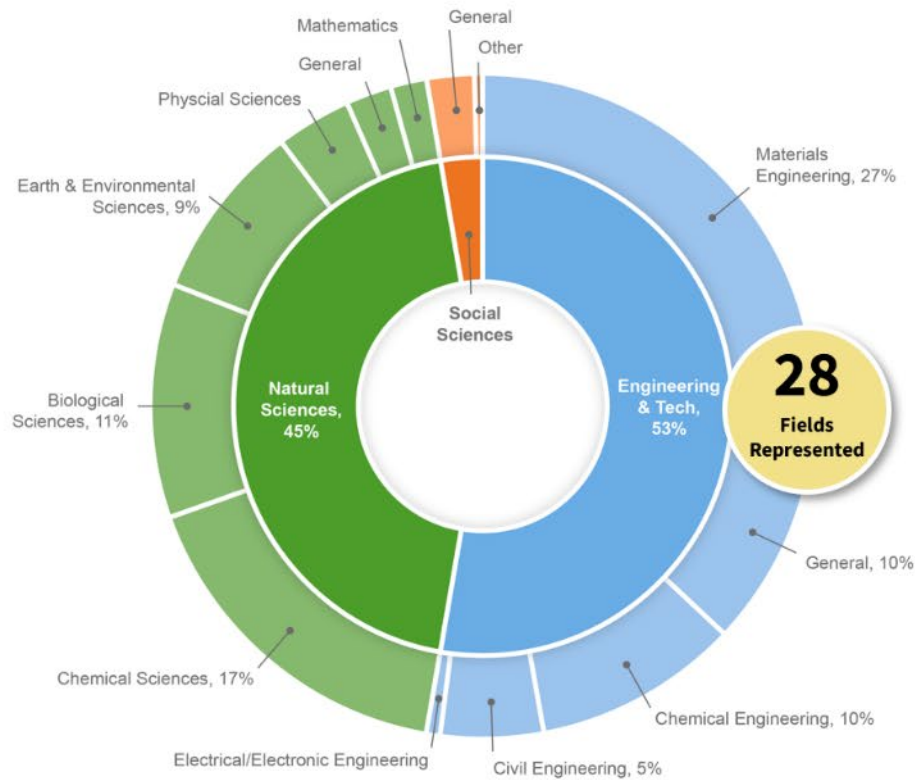
2017

19x
faster time
to science*

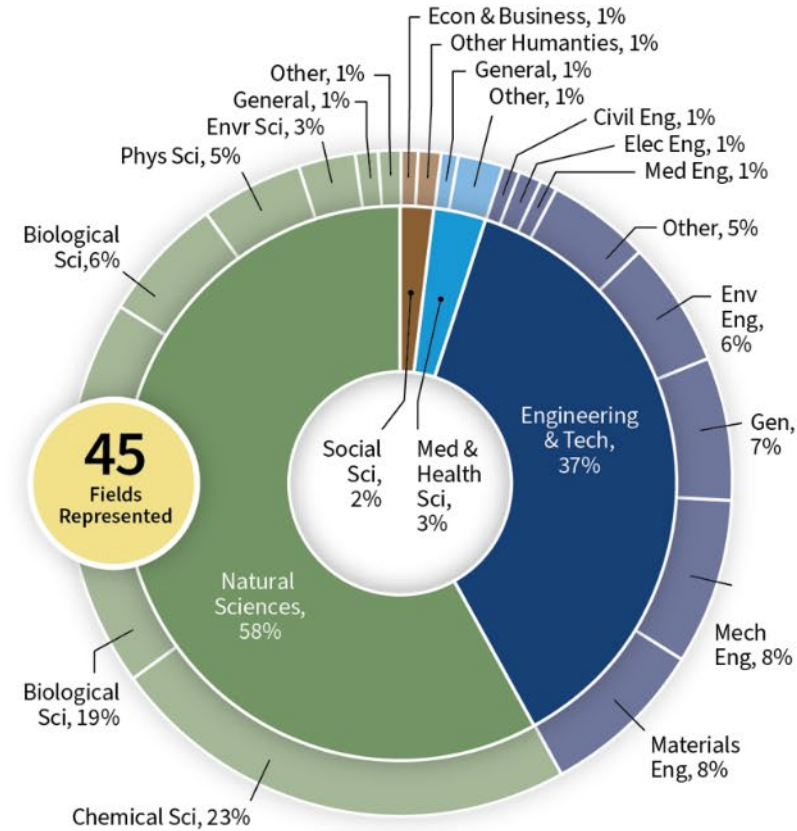


2021

Impact at OSC



2017



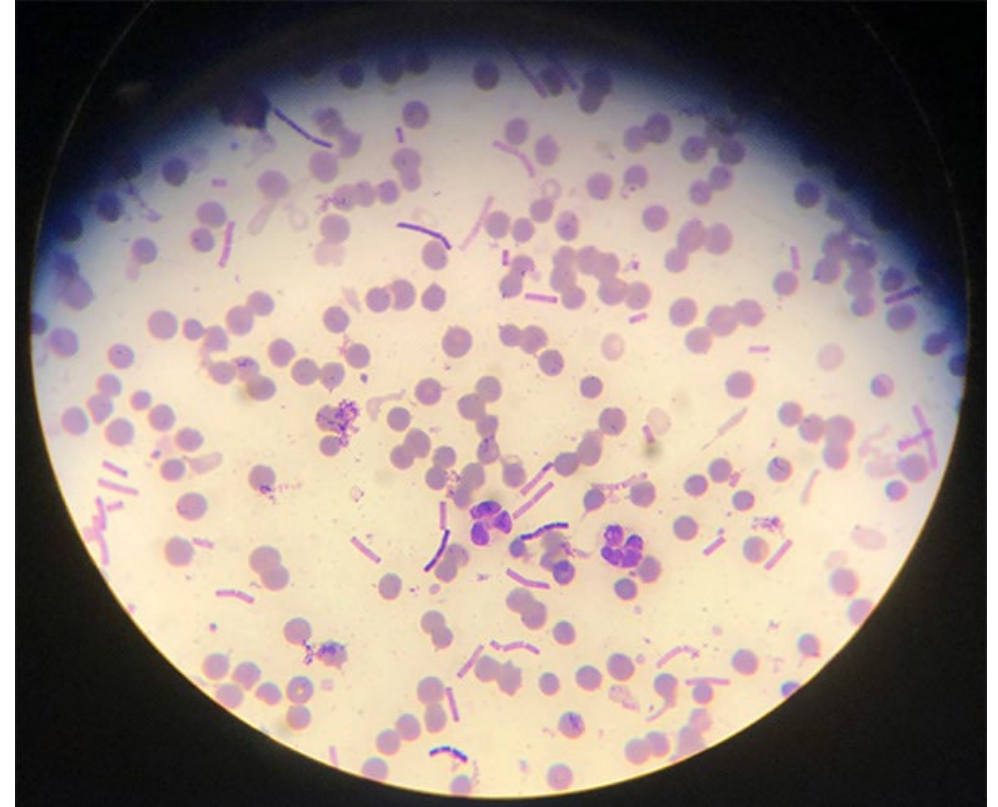
2023

Recent Contributors and Collaborators

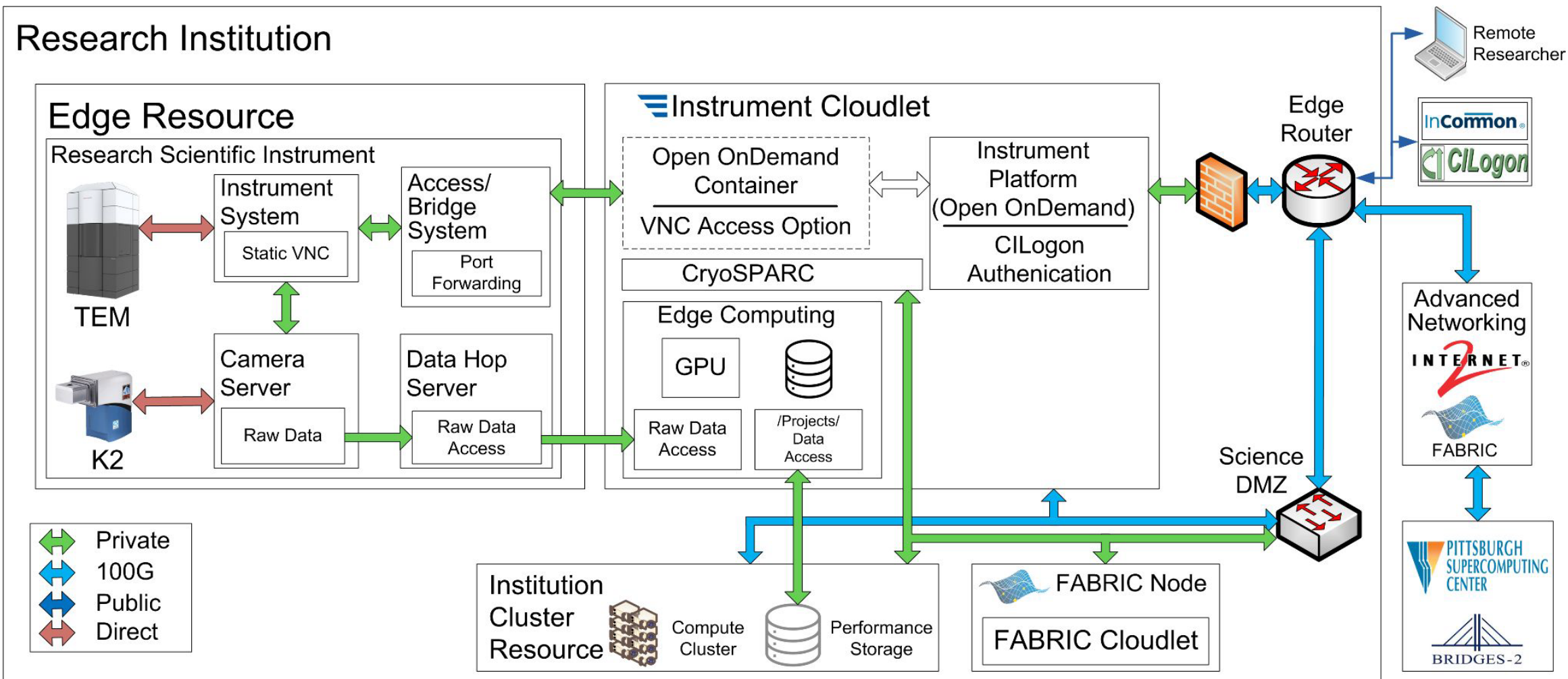


openondemand.org/community

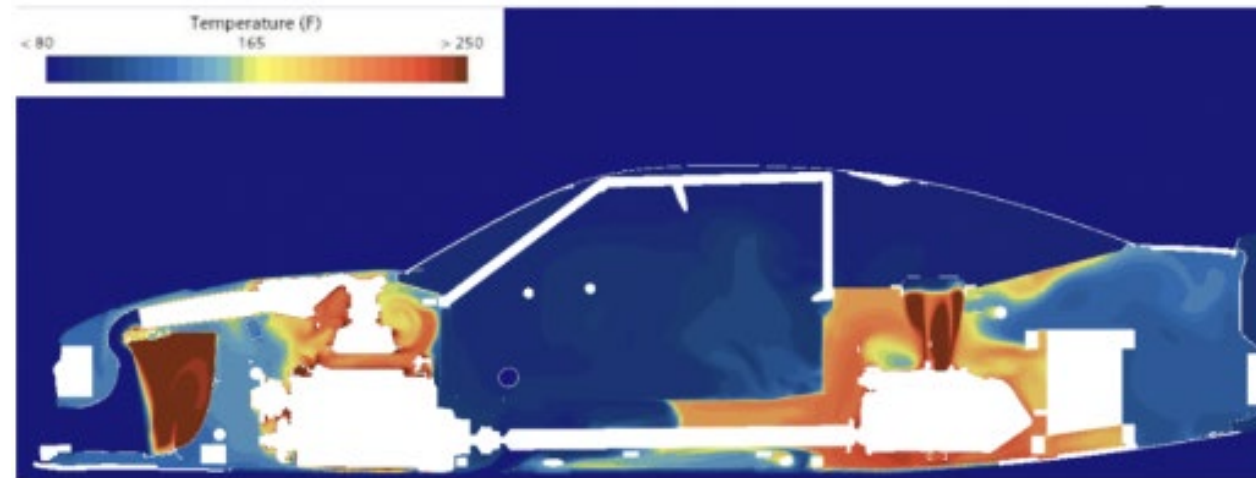
Anthrax-Infected Zebras



Remote Science



Race Car Comfort



Digital Arts



“OSC brought equity and accessibility to my students, allowing them to use top-of-the-line technologies in a safe environment from any device.”

— Basil Masri Zada,
Ohio University professor

Classroom Computing



“When they log in to the OnDemand server through OSC on their iPads, they all see exactly the same thing. We can write laboratory exercises and write hints for homework problems and this helps them have a standardized environment and know what to expect when they use the tool.”

— Laura Kubatko, Ohio State professor

Introducing a new web interface for LUMI

9.11.2023

A new, easy-to-use web interface for LUMI has been launched at <https://www.lumi.csc.fi>, providing all the resources and power of the LUMI supercomputer with an easy-access web interface.

This new user interface offers something both for less experienced users as well as seasoned power users. The main features are its ability for users to easily launch interactive applications and connect to them seamlessly from the browser. Key highlights include a comprehensive Linux Desktop that offers a rich graphical environment for data visualization and analysis as well as Jupyter environments for Python and Julia. Additionally, users can launch custom containerized environments for, e.g., courses. It also includes VSCode for code development as well as Tensorboard for AI.

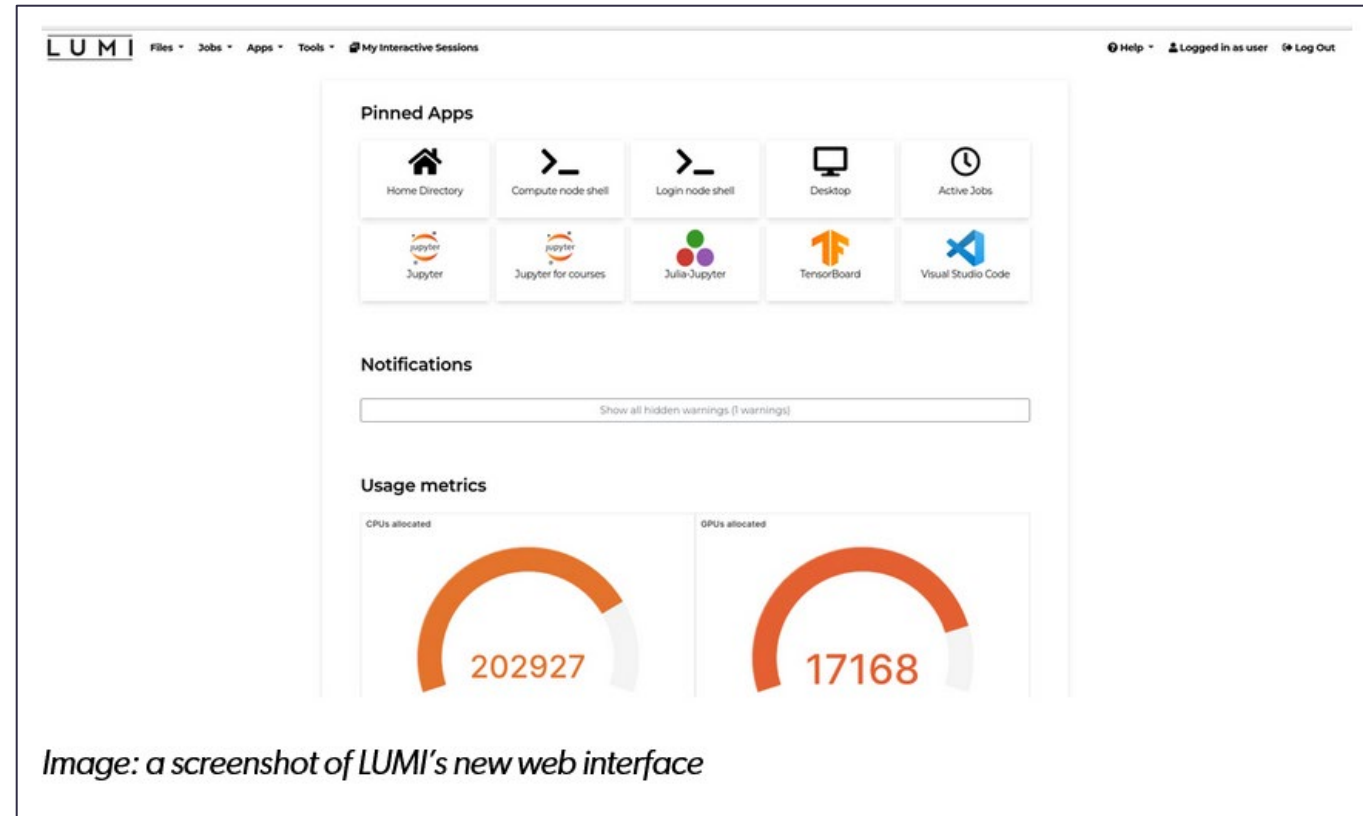
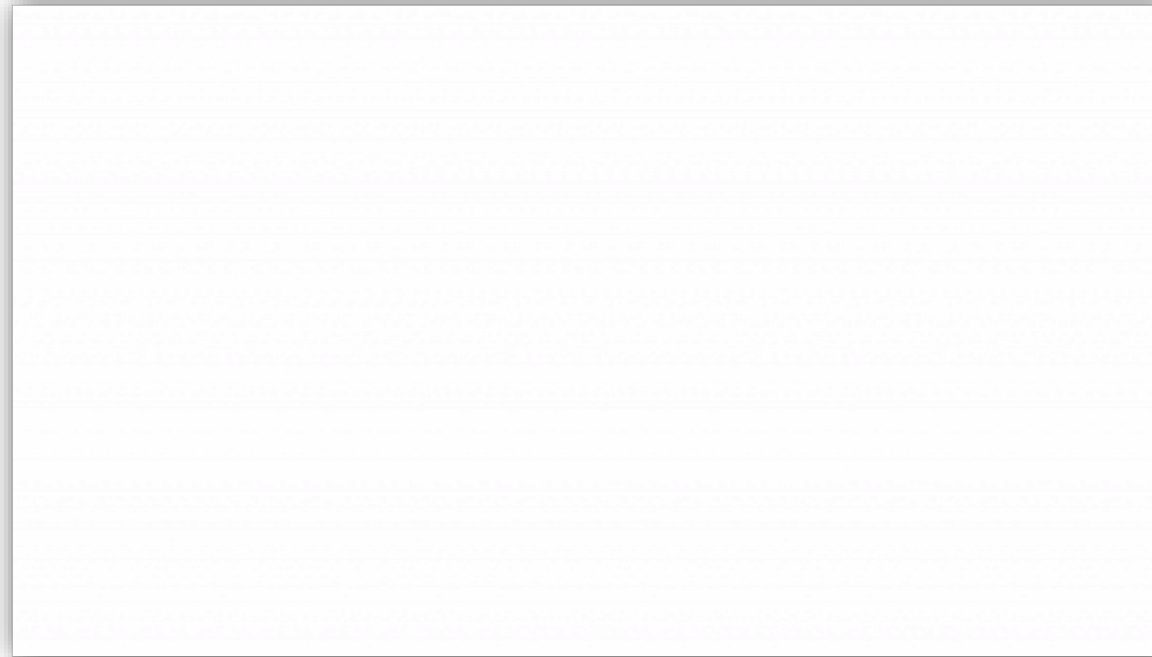


Image: a screenshot of LUMI's new web interface

Log In



openondemand.org/tutorial

Technical Updates

Versions 4.0 available and 4.1 in progress

4.0.1 to 4.0.6 patches – responding to community needs

GitHub issues review effort – reviewed nearly 400 issues

Release announcements – Thorough Discourse notices

Demo container image released – facilitates OOD test drive

4.0 Notable Features

Global batch connect items in ondemand.d files – defining queues or node times in one place

Dismissible and required announcements – configurable alerts

System status page – cluster status and details

File editor refreshed – community driven UI improvements

4.1 View – Dev Rel Edition

Milestone Bucket

Milestone Bucket 53
Issues that are not assigned a category of importance / priority and issues that are connected to an epic

- ondemand #1866
refactor dashboard's inline javascript
4.1 release area/tech debt component/dashboard enhancement
- ondemand #3348
support for auto_reservations
4.1 release component/batch_connect
- ondemand #3493
enable http2 in apache
4.1 release component/ood_portal_generator
- ondemand #1300
noVNC controller
4.1 release area/security area/tech debt area/ux enhancement
- ondemand #3846
When home directories are full the error message is not verbose enough to the end

Epics Planned for 4.1

Epics Planned for 4.1 10
Epics planned for 4.1

- ondemand #3393
enhance path selector
4.1 release component/batch_connect component/path_selector enhancement Epic
- ondemand #3570
Caching overhaul
4.1 release community request Epic
- ondemand #2476
remaining dynamic batch connect items
4.1 release community request component/batch_connect Epic
- ondemand #2199
Overview: OOD Test Coverage
4.1 release area/testing Epic
- ondemand #1454
refactor configuration singleton
4.1 release area/tech debt

High Priority

High Priority / Importance 19
Community requests and accessibility

- ondemand #3910
Add GPU request to interactive jobs card
4.1 release community request component/batch_connect enhancement
- ondemand #2067
add alt text to welcome logo
4.1 release area/accessibility component/dashboard enhancement good first issue
- ondemand #3713
selinux patch for symlinks
4.1 release area/installation community request
- ondemand #1368
Truncated files cause issues
4.1 release community request component/file_browser Bug
- ondemand #4358
Fix file write @ dir.mktprmdir

Medium Priority / Importance 17
Bugs or other medium importance

- ondemand #3506
data-hide does not work on radio buttons
4.1 release component/batch_connect Bug
- ondemand #4036
dashboard widgets overflow
4.1 release bug/cosmetic component/dashboard Bug
- ondemand #4177
PM - template selection puts the wrong value for icon
4.1 release component/project manager Bug
- ondemand #1559
upgrade ood-portal-generator spec to 3.10.0
4.1 release area/tech debt Bug
- ondemand #4105
flaky tests with Dir.mktprmdir
4.1 release area/testing Bug

Medium Priority

In Progress

In Progress 14
Currently being worked on by a dev

- ondemand #4366
possible grafana url building bug
4.1 release component/dashboard Bug
- ondemand #3932
auto_queues widget should check AllowQoS property for slurm partitions
4.1 release community request component/batch_connect #4471
- ondemand #3390
path selector could be larger
4.1 release component/path_selector enhancement
- ondemand #1451
Warning for expiring interactive sessions
4.1 release community request enhancement
- ondemand #4162
App/Sub-app attribute label change doesnt always apply

Closed Completed for Release 39

- ondemand #228
navbar can overflow a lot
4.1 release bug component/dashboard enhancement #4194
- ondemand #673
landmarks in 'my interactive sessions' page are off
4.1 release area/accessibility component/batch_connect Bug
- ondemand #1619
Return HTML rendering
4.1 release community request component/file_browser enhancement #4416
- ondemand #1609
active jobs extended panel show Slurm ArrayJobId and ArrayTaskId
4.1 release community request component/activejobs enhancement #4436

Closed Completed for Release

4.1 Categorization






View the Action

OSC / [ondemand](#) Public Notifications Fork 135 Star 356

[Code](#) [Issues 400](#) [Pull requests 13](#) [Discussions](#) [Actions](#) [Projects 3](#) [Wiki](#) [Security 1](#) [Insights](#)

Labels Milestones New issue

Open 400 **Closed** 1,404 Author ▾ Labels ▾ Projects ▾ Milestones ▾ Assignees ▾ Types ▾ Newest ▾

- 🟢 **tests fail with seed 14743** area/testing community request component/dashboard
#4477 · simonLeary42 opened 3 days ago ·  Backlog 2
- 🟢 **auto_accounts requires all slurm clusters to share the same database** community request component/dashboard
#4474 · simonLeary42 opened 3 days ago ·  Backlog 2
- 🟢 **Can't logout under OIDC (seems OOD session cookie isn't being invalidated)** area/auth community request
#4469 · twhitehead opened last week ·  Backlog 3
- 🟢 **dashboard cluster status page has wrong GPU info** community request component/systemstatus
#4465 · prod-feng opened last week ·  Backlog 3
- 🟢 **System Status small improvement** community request component/systemstatus
#4458 · B0r1sD opened 2 weeks ago ·  Backlog 2

Agenda

About Open OnDemand

Tutorial Part 1 – Demonstration of

Developer Dashboard

Break

Tutorial Part 2 – Apps!

How to Get Help/Get Involved



Established Support Mechanisms



Discuss on Discourse

The Get Help category features user and admin questions and answers.

openondemand.org/discourse



Slack Workspace

Communicate and collaborate with the project team and community members.

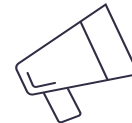
openondemand.org/slack



GitHub Documentation

Outlines installation steps, app guidelines, release notes, and more.

openondemand.org/docs



Constant Contact Newsletter

Subscribe to get notices about upcoming events, new releases and user stories.

openondemand.org/newsletter

openondemand.org/support

Community Events



Tips and tricks calls

Hosted by the larger Open OnDemand community, tips and tricks webinars share best practices for setting up and using Open OnDemand. They take place on the first Thursday of every month at 1 p.m. ET in the US



Open office hours

Hosted by our development team, Zoom open office hours are the perfect opportunity to ask questions or make a suggestion. They are held on the second Tuesday of every month from 11:15 a.m. to 12:45 p.m. ET in the US

European and Asia Pacific-timed versions of these calls will be starting shortly

openondemand.org/events

Customizable Support Subscription

- Access to:
 - Priority support channels
 - Staff expertise
- Utilize best practices
- Contributes sustainable, ongoing funding for Open OnDemand
- Pilot will run through 2025
- Additional services will be introduced as we learn from client experience

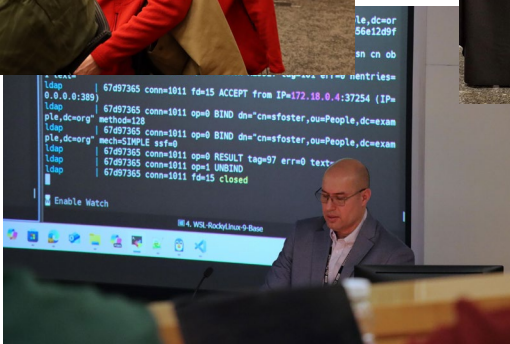


Benefits

- Priority Discourse channel
- Priority triage of Github issues
- Scheduled one-on-one office hours
- Participation in advisory working groups

openondemand.org/subscribe

**Inaugural conference was held from
March 17-20, 2025 at Harvard University**

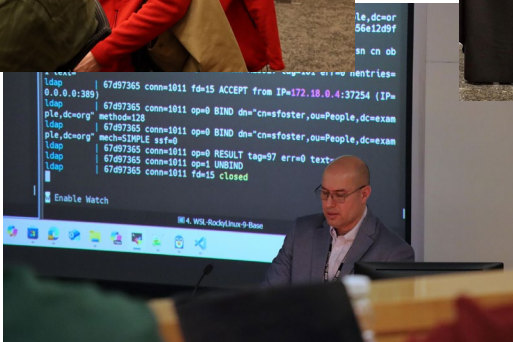


Outcomes

- 170+ attendees
- 50+ talks
- 10 countries represented
- Attendees from:
 - US government
 - US non-profits
 - US public and private institutions
 - International non-profits
 - International academia
 - Commercial entities

Inaugural conference was held from
March 17-20, 2025 at Harvard University

GOOD26 is coming in March 2026!



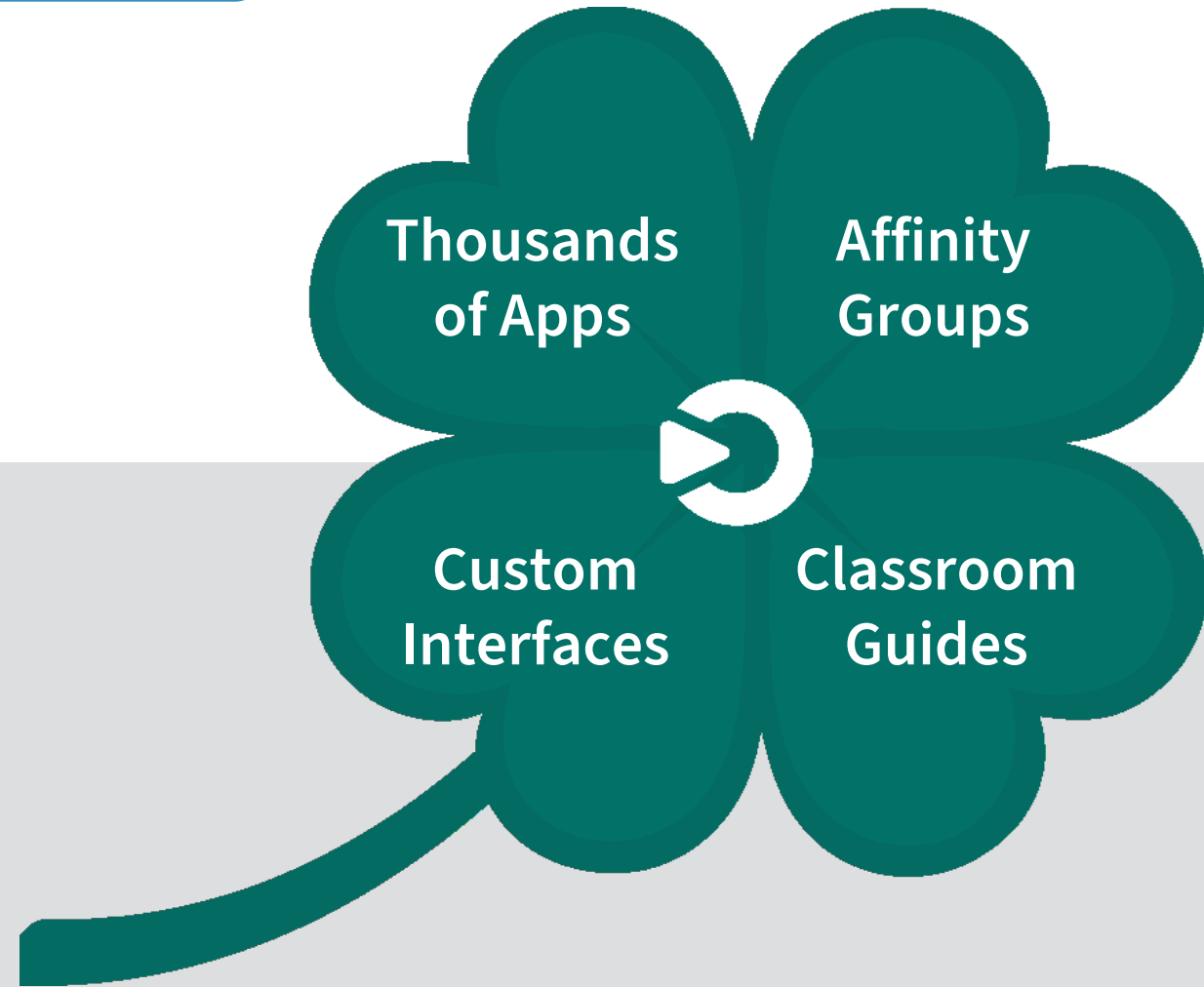
Outcomes

- 170+ attendees
- 50+ talks
- 10 countries represented
- Attendees from:
 - US government
 - US non-profits
 - US public and private institutions
 - International non-profits
 - International academia
 - Commercial entities

GOODLUCK

Growing Open OnDemand: Leveraging Unified Community Knowledge

Domain solutions for the sciences,
engineering, & education



Five year NSF award #2411375



Supercomputer
Center

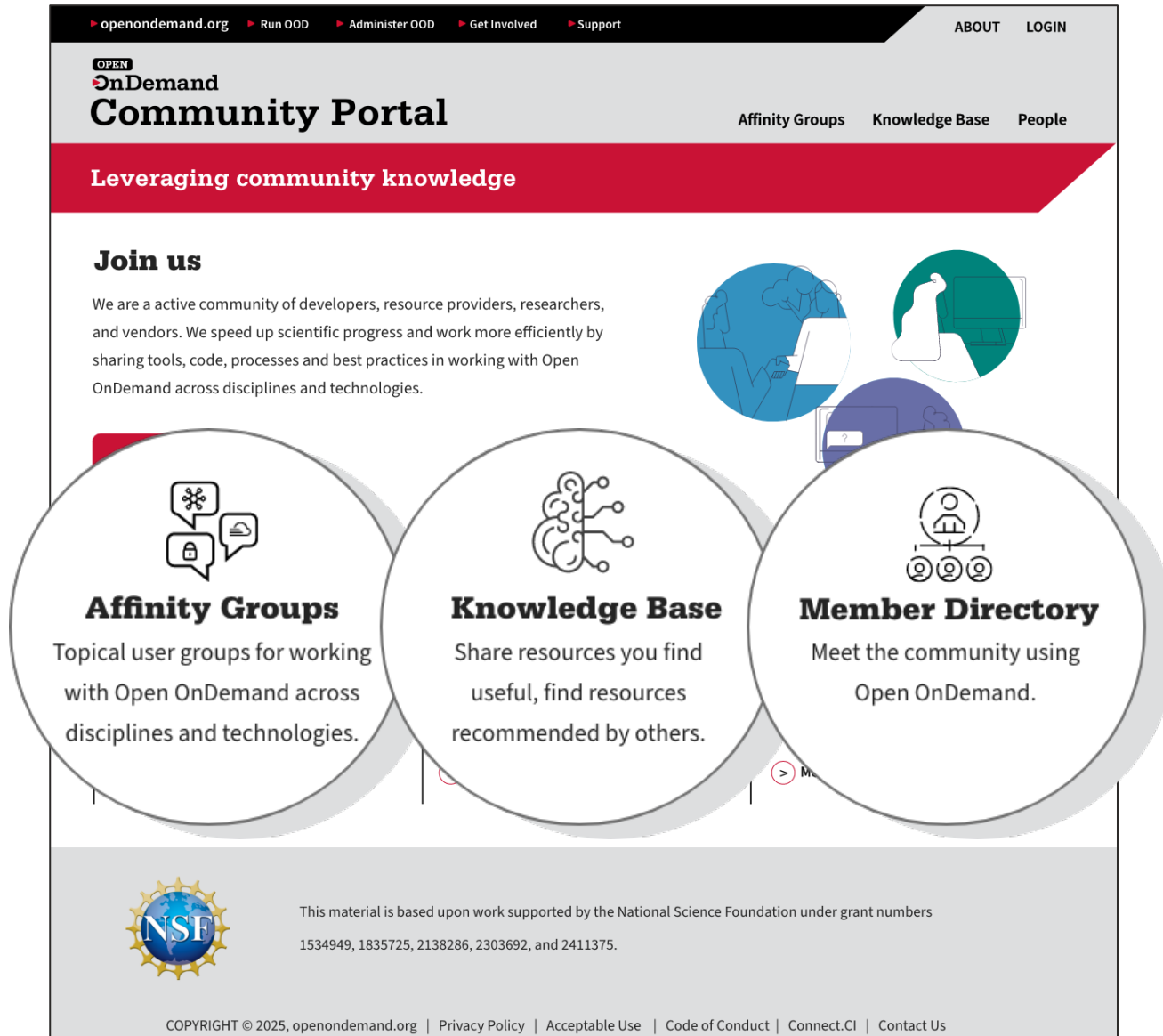


TEXAS A&M
UNIVERSITY



UNIVERSITY OF
MARYLAND

Community Portal



The screenshot shows the Open OnDemand Community Portal homepage. At the top is a navigation bar with links to openondemand.org, Run OOD, Administer OOD, Get Involved, Support, ABOUT, and LOGIN. Below this is a header with the Open OnDemand logo and the title 'Community Portal', along with links for Affinity Groups, Knowledge Base, and People. A red banner below the header reads 'Leveraging community knowledge'. The main content area features a 'Join us' section with a paragraph about the community of developers, resource providers, researchers, and vendors. Below this are three large circular icons representing 'Affinity Groups', 'Knowledge Base', and 'Member Directory', each with a brief description. The footer includes the NSF logo, a statement about NSF grant support, and a copyright notice for 2025.

openondemand.org Run OOD Administer OOD Get Involved Support ABOUT LOGIN

OPEN
OnDemand
Community Portal

Affinity Groups Knowledge Base People

Leveraging community knowledge

Join us

We are a active community of developers, resource providers, researchers, and vendors. We speed up scientific progress and work more efficiently by sharing tools, code, processes and best practices in working with Open OnDemand across disciplines and technologies.

Affinity Groups
Topical user groups for working with Open OnDemand across disciplines and technologies.

Knowledge Base
Share resources you find useful, find resources recommended by others.

Member Directory
Meet the community using Open OnDemand.

NSF

This material is based upon work supported by the National Science Foundation under grant numbers 1534949, 1835725, 2138286, 2303692, and 2411375.

COPYRIGHT © 2025, openondemand.org | Privacy Policy | Acceptable Use | Code of Conduct | Connect.CI | Contact Us

Affinity Groups connect community members with common interests

- Links to communication channels (Discourse, GitHub, etc.)
- Central repository for documentation, code samples, tutorials, etc.
- Member email lists
- Announcements, events, and trainings

Flexible usage

- Groups can be ephemeral or long term
- Building repositories/active discussion

Join at [Openondemand.org/portal](https://openondemand.org/portal)

Affinity Groups



Customizing the Backend



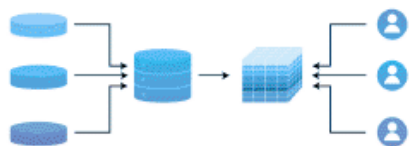
Genomics



LLMs



New to
OPEN
nDemand



Project Design



Appverse



Classroom



Azure



Security Best Practices



Multilingual Community



Structural Biology Apps



Web Apps & Absolute URLs

Join at openondemand.org/portal

Other Ways to Get Involved

Join a governance committee!

User Documentation

Write & maintain documentation

Community Engagement

Help build the Open OnDemand community

Contributor Guide

Help maintain the contributor guide

Technical Committee

Help oversee software decisions **(FULL)**

[Openondemand.org/get-involved](https://openondemand.org/get-involved)

Other Ways to Get Involved

Join a governance committee!

User Documentation

Write & maintain documentation

Community Engagement

Help build the Open OnDemand community

Contributor Guide

Help maintain the contributor guide

Technical Committee

Help oversee software decisions (**FULL**)

Join the organizing committee!

GOOD '26

Global Open OnDemand Conference

Help shape GOOD 2026!

Your input will guide committee assignments ahead of our kick-off meeting.

Thanks for being part of this!

[Openondemand.org/get-involved](https://openondemand.org/get-involved)

Thank You!

Please take a moment to sign up for our mailing list by clicking the QR code!

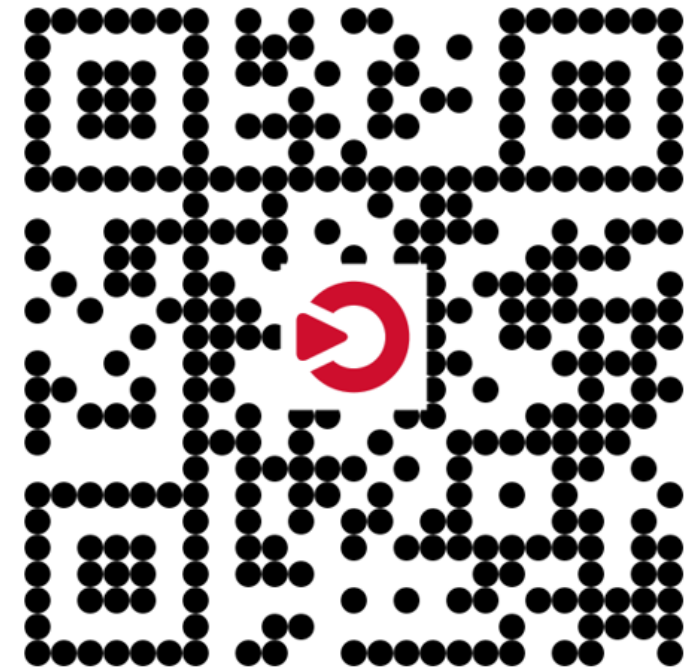
Contact us:

Julie Ma

jma@openondemand.org

Emily Moffat Sadeghi

emoffat@openondemand.org



openondemand.org/signup