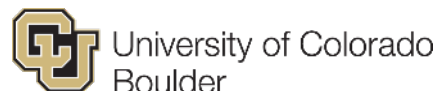
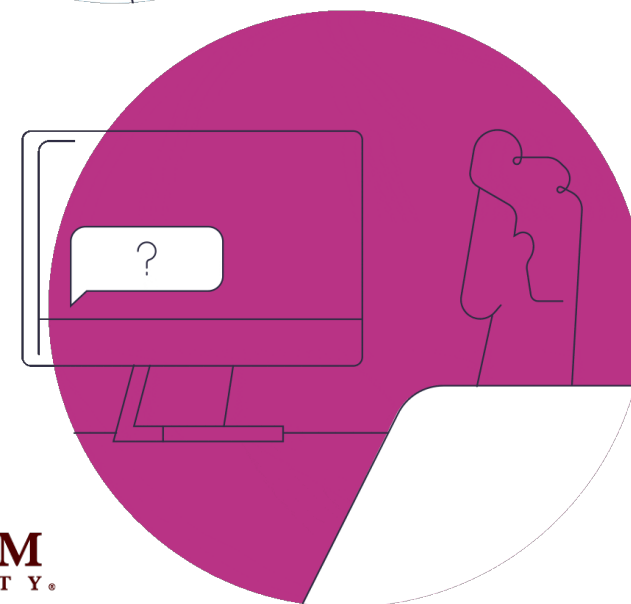
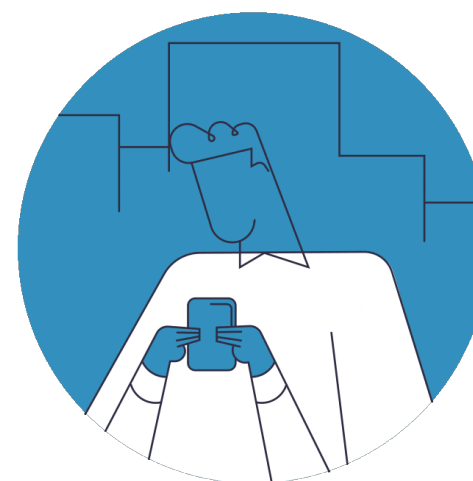




# PEARC25 Open OnDemand User Group Meeting

*Emily Moffat Sadeghi,  
Julie Ma, Dhruva Chakravorty*



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](https://openondemand.org)



# BoF Menti

## Instructions

Go to

**[www.menti.com](https://www.menti.com)**

Enter the code

**7980 2306**



Or use QR code



# Agenda

**About Open OnDemand**

Community Updates

Community Stories

Development and Support

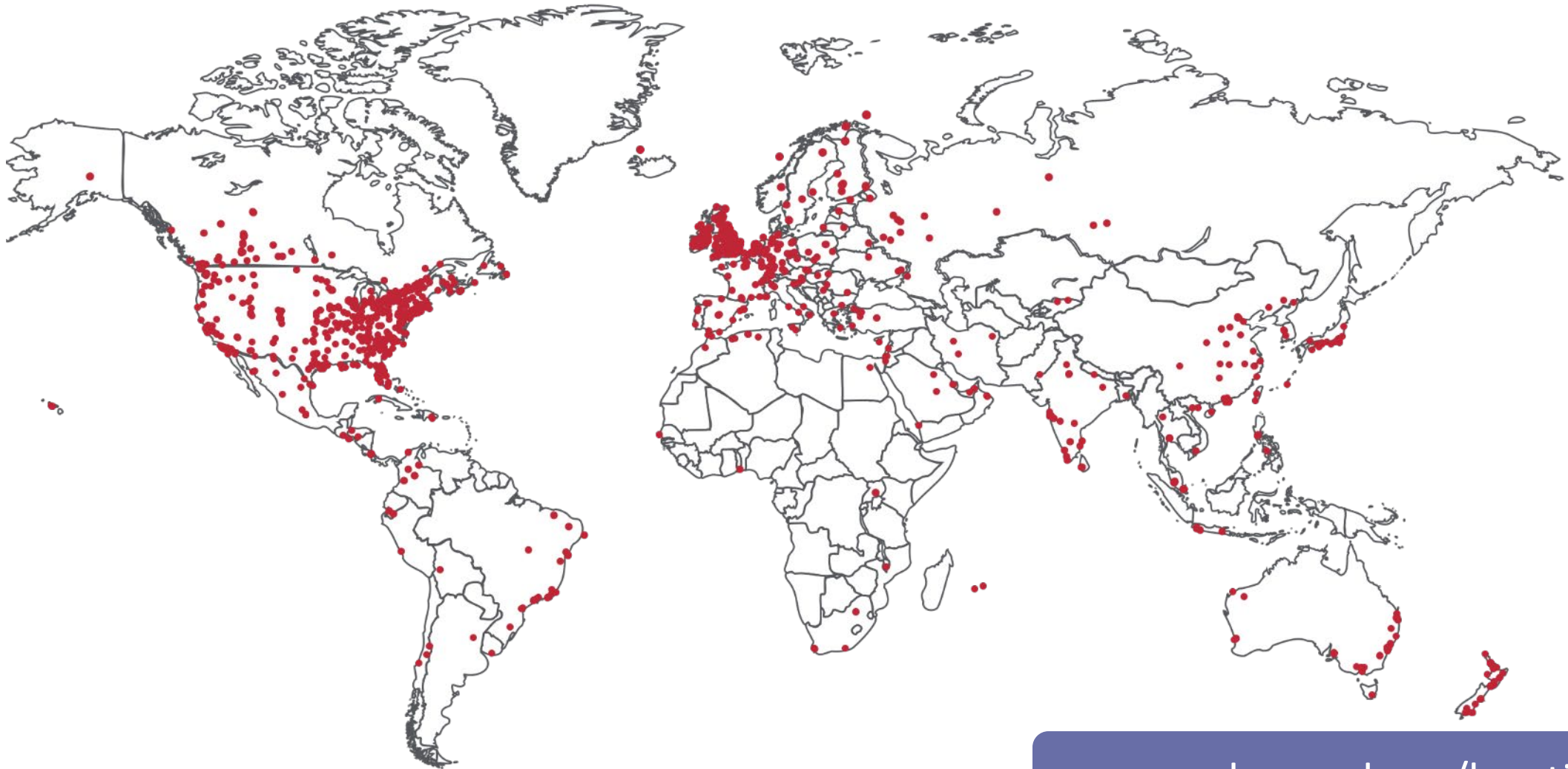
Open Floor Discussion





# Deployed Worldwide

100+ Countries | 2,100+ Organizations



[openondemand.org/locations](https://openondemand.org/locations)



# NSF ACCESS

OPEN  nDemand



Hive



Rockfish



ACES &  
FASTER



Anvil



Bridges-2 &  
Neocortex



KyRIC



Delta



Ookami



Expanse

[openondemand.org/access](https://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)	▼



# Commercial Cloud

OPEN  nDemand



[openondemand.org/aws](https://openondemand.org/aws)



[openondemand.org/azure](https://openondemand.org/azure)



[openondemand.org/gcp](https://openondemand.org/gcp)



[openondemand.org/oci](https://openondemand.org/oci)

Open OnDemand with Azure CycleCloud Apps Files Jobs Clusters Interactive Apps

OPEN

 nDemand

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

Pinned Apps A featured subset of all available apps

Clusters



Slurm ccw Shell Access  
System Installed App

Interactive Apps



VSCode on Compute Node  
System Installed App



VSCode on Login Node  
System Installed App

powered by  
OPEN  nDemand

OnDemand version: 4.0.3



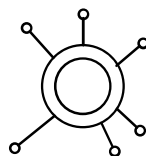
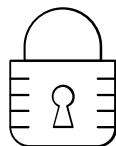
# Site Configuration

## 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





# 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](mailto: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](https://www.osc.edu/service_portal_deployment).

Looking for a classroom?

Go to [class.osc.edu](https://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

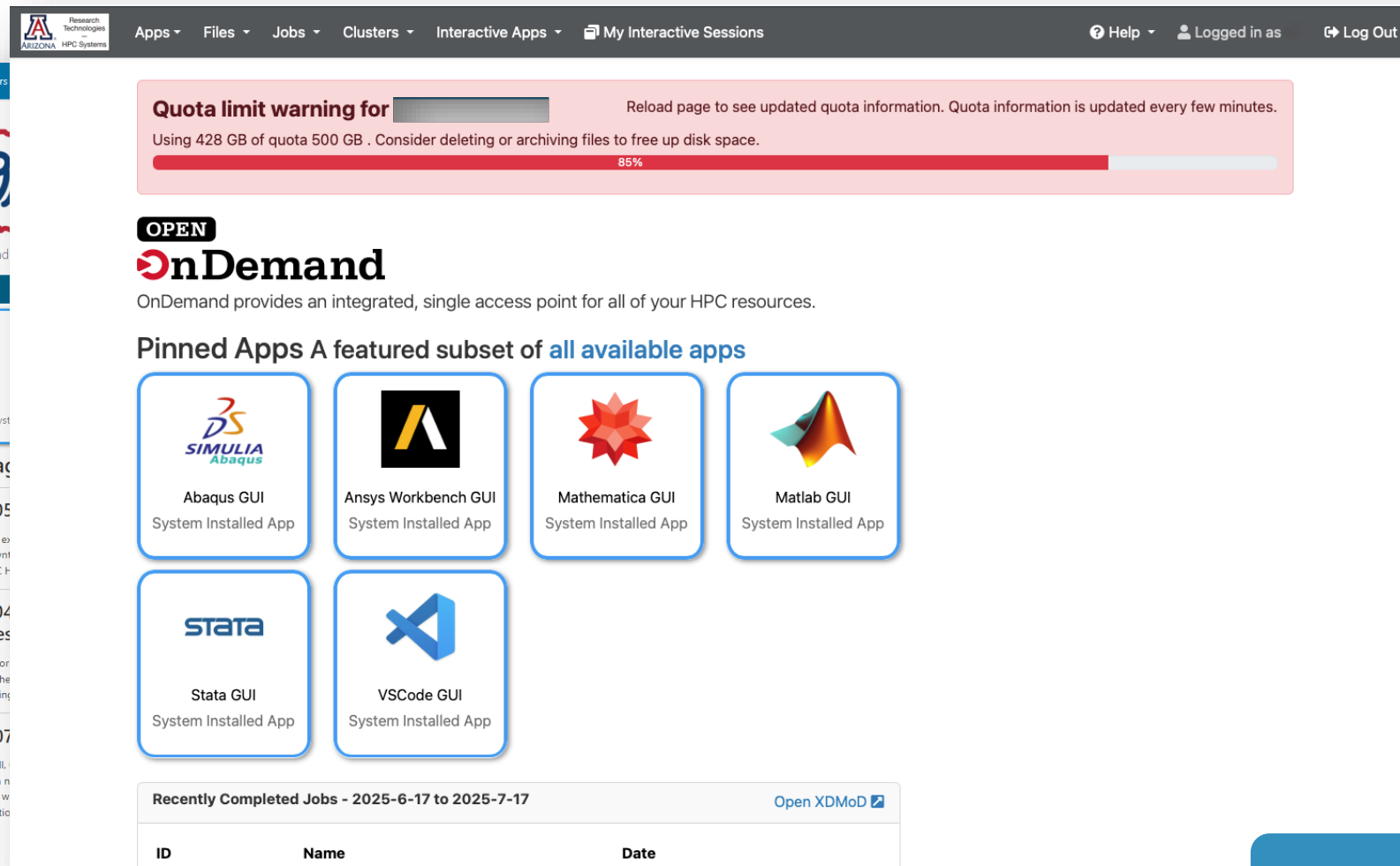
OPEN  nDemand

OnDemand version: 4.0.3

openondemand.org



# Sample Deployments









The screenshot displays the OpenOnDemand web interface. At the top, a navigation bar includes links for Apps, Files, Jobs, Clusters, Interactive Apps, and My Interactive Sessions. A user is logged in, and a help link is available. A prominent red warning banner at the top indicates a quota limit warning, showing that 428 GB of a 500 GB quota is used (85%). Below the warning, the OpenOnDemand logo is displayed, followed by a description of the platform as an integrated access point for HPC resources. A section titled 'Pinned Apps' features a grid of six application tiles, each with a logo and the text 'System Installed App'. These apps are Abaqus GUI, Ansys Workbench GUI, Mathematica GUI, Matlab GUI, Stata GUI, and VSCode GUI. At the bottom, a table titled 'Recently Completed Jobs - 2025-6-17 to 2025-7-17' is shown, with columns for ID, Name, and Date. A link to 'Open XDMoD' is provided next to the table title.

Quota limit warning for [redacted] 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**  
**OnDemand**  
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
----	------	------

openondemand.org



# Sample Deployments


OSC OnDemand Files Jobs Clusters

  
OnDemand  
OnDemand prov  
Pinned Ap  
System  
Message  
2025-05  
We've been ex  
May 13 downt  
contact OSC H  
2025-04  
Services  
We will perfor  
OSC using the  
plan accordi  
2024-07  
Later this fall,  
rolling out a n  
information w  
communicatio


Research  
Technologies  
HPC Systems


Apps Files

Quota limit  
Using 428 GB of

OPEN  
  
OnDemand prov

Pinned Ap

  
Abaqus GUI  
System Installed


  
Stata GUI  
System Installed

Recently Compl

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

DEAC OnDemand Files Jobs Clusters Interactive Apps My Interactive Sessions

Help Logged in as anderss Log Out





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  
OPEN 

OnDemand version: 3.1.11

openondemand.org




# Sample Deployments

OSC OnDemand

Files

Jobs

Clusters



OnDemand

System

Message

2025-05-13

We've been ex

May 13 downt

contact OSC H

2025-04-13

Services

We will perfor

OSC using the

plan accordin

2024-07-13

Later this fall,

rolling out a n

information w

communicatio


Research  
Technologies  
—  
ARIZONA HPC Systems

Apps

Files


Quota limit

Using 428 GB of




OnDemand prov

Pinned Ap



Abaqus GUI

System Installed



Stata GUI

System Installed

Recently Compl

ID

Name

Date

DEAC OnDemand

Files

Jobs

Clust



DEAC OnDemand

Pinned Apps

DEAC Apps



Avogadro

System Installed App



FastQC

System Installed App

powered by

OPEN  nDemand

Anvil

Files

Jobs

Clusters

Interactive Apps

My Interactive Sessions

New Features

</> Develop

Help

Logged in as x-lentner

Log Out



Rosen Center for Advanced Computing

Service Unit (SU) Usage

asc170016

15196.22 SUs used / 979191.95 total (963995.73 left)

Export

asc170016-gpu

13.05 SUs used / 855.13 total (842.08 left)

Export

cis230138

0 SUs used / 0 total (0 left)

Export

cis230270

3671.28 SUs used / 166515.47 total (162844.18 left)

Export

hum250006

1941.68 SUs used / 20000 total (18058.32 left)

Export

oth250002-gpu

81.2 SUs used / 1915.68 total (1834.48 left)

Export

tra220012

0 SUs used / 0 total (0 left)

Export

Disk Usage

home / x-lentner

Size → 6.1GB / 25.0GB

View

scratch / x-lentner

Size → 0.0KB / 100.0TB

Files → 1 / 1.0M files

View

projects / x-asc170016

Size → 986.3GB / 5.0TB

Files → 260.0K / 1.0M files

View

projects / x-cis230138-data

Size → 0.0KB / 5.0TB

Files → 1 / 1.0M files

View

projects / x-cis230138

Size → 4.9TB / 5.0TB

Files → 7.4K / 1.0M files

View

projects / x-cis230270

Size → 524.0MB / 5.0TB

Files → 1.0K / 1.0M files

View

projects / x-hum250006

Size → 40.6GB / 5.0TB

Files → 113.0K / 1.0M files

View

Announcements

No recent announcements.

[View All Announcements](#)

Partition Status

[View Queue Limits](#)

OnDemand version: 3.1.11

powered by

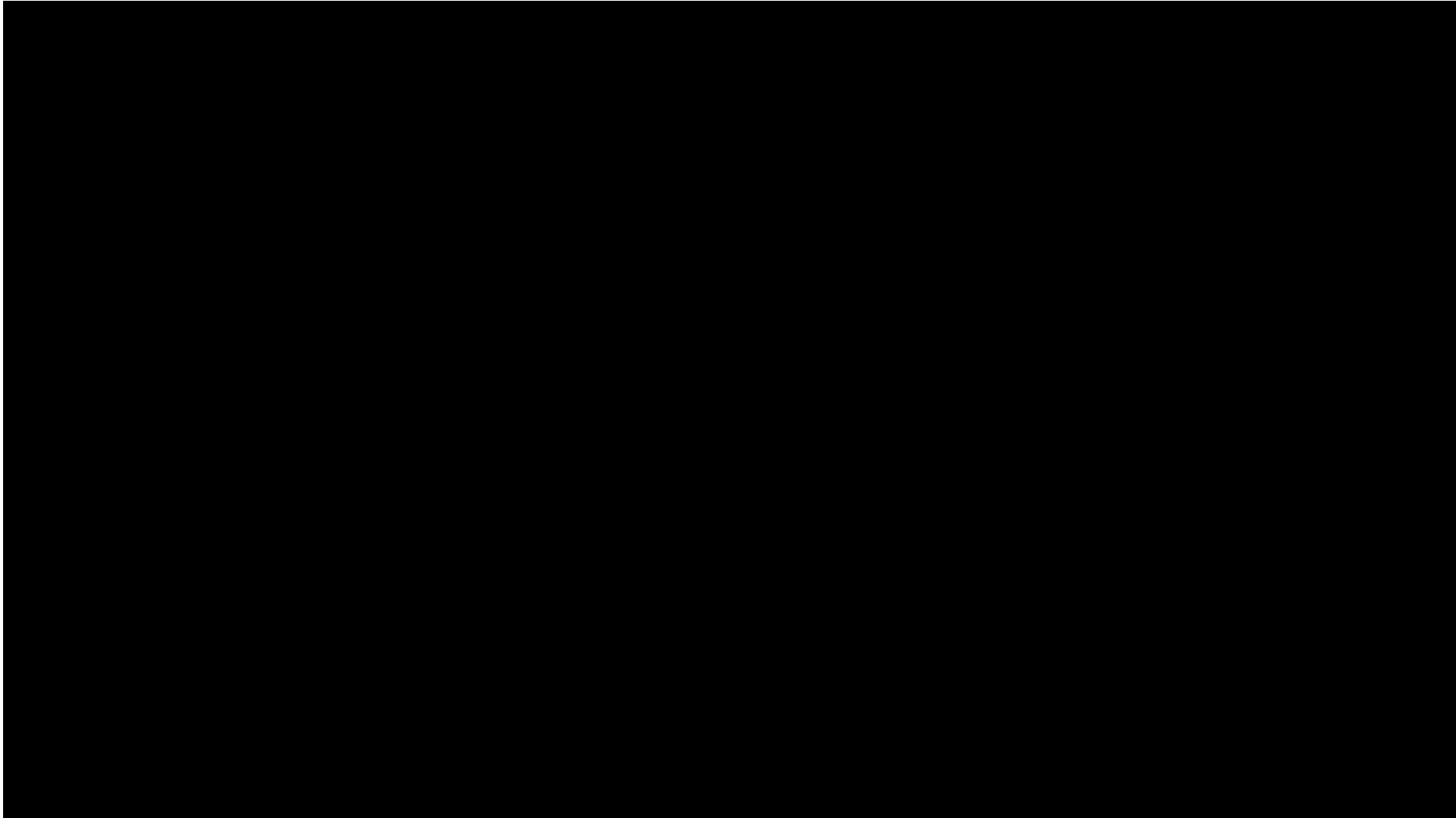
OPEN  nDemand

OnDemand version: 4.0.3

openondemand.org



# Any Challenge, Every Solution



[openondemand.org/anysolution](https://openondemand.org/anysolution)



# Agenda

About Open OnDemand

**Community Updates**

Community Stories

Development and Support

Open Floor Discussion





# HPCwire Award



Thank you to all who  
use Open OnDemand  
and those who voted  
in the HPCwire  
Readers' Choice!

[openondemand.org](https://openondemand.org)



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

**GOOD26 is coming March 2026!**

**Speakers: please fill out your proceedings  
information via email**



## Outcomes

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

[openondemand.org/good](https://openondemand.org/good)



# Contributor Jam

## Outcomes

- 75+ attendees
- 4 hours of content
- 25+ pull requests
- 4 repositories
- 11 individuals awarded



**Comprehensive deep  
dive**

**Repos, gems, adapters,  
schedulers**

**Walkthrough and resources  
for pull requests**

[github.com/OSC/contributor\\_guide](https://github.com/OSC/contributor_guide)



# Jam Recognition



IMPACTFUL  
CONTRIBUTOR



DISCOURSE  
DRUID



DOCUMENTATION  
DYNAMO



OOD  
MENTOR



DOCUMENTATION  
DETECTIVE

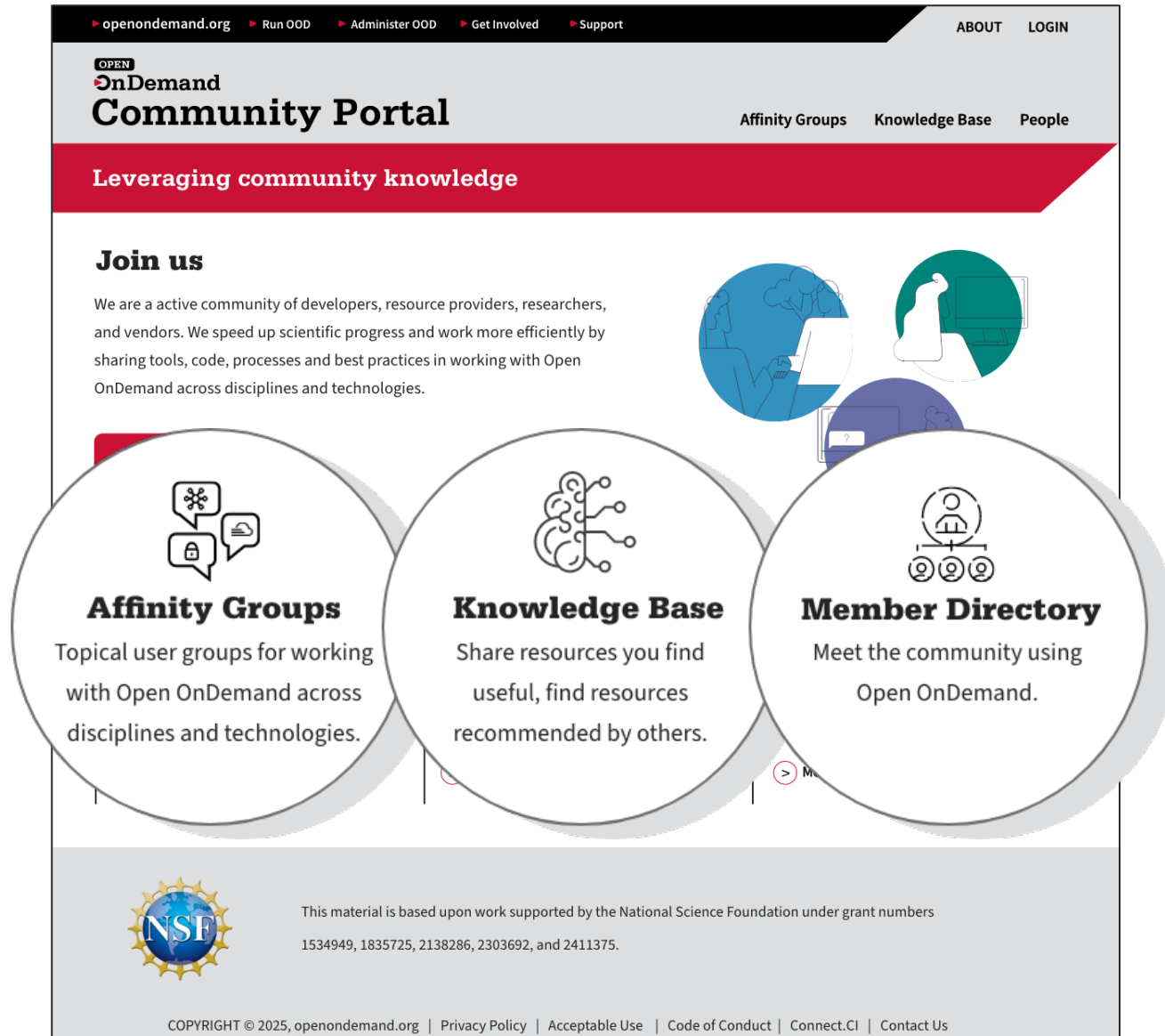


BUG  
HUNTER

[discourse.openondemand.org](https://discourse.openondemand.org)



# Community Portal



The screenshot shows the Open OnDemand Community Portal website. The header includes navigation links: openondemand.org, Run OOD, Administer OOD, Get Involved, Support, ABOUT, and LOGIN. The main title is "Community Portal" with sub-navigation for Affinity Groups, Knowledge Base, and People. A red banner reads "Leveraging community knowledge". Below this, a "Join us" section describes the community's mission. Three large circular icons represent the main features: Affinity Groups, Knowledge Base, and Member Directory. The footer includes the NSF logo and a copyright notice.

**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
- Central repository for documentation, code samples, tutorials, etc.
- Member email lists
- Announcements, events, and trainings

## Flexible usage

- Groups can be short term or long term
- Building repositories or active discussion

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



# Affinity Groups



**Customizing the Backend**



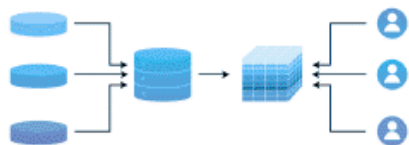
**Genomics**



**LLMs**



**New to**  
OPEN  
**nDemand**



**Project Design**



**Appverse**



**Classroom**



**Azure**



**Security Best Practices**



**Multilingual Community**



**Structural Biology Apps**



**Web Apps & Absolute URLs**

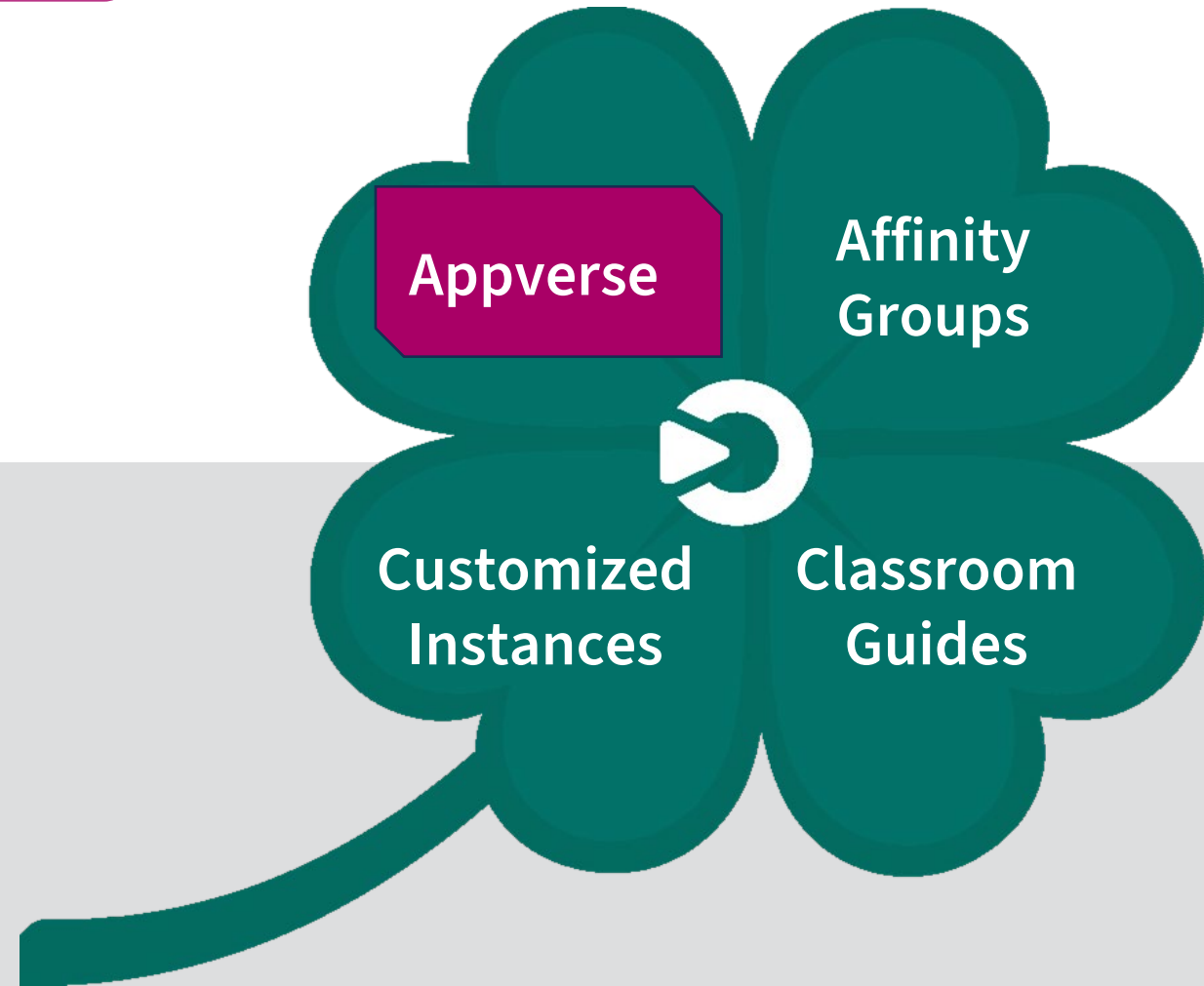
Join at [openondemand.org/portal](https://openondemand.org/portal)



GOODLUCK

# Growing Open OnDemand: Leveraging Unified Community Knowledge

Domain solutions for the sciences,  
engineering & education



Five year NSF awards #2411375-7



Supercomputer  
Center



TEXAS A&M  
UNIVERSITY



UNIVERSITY OF  
MARYLAND



# The OOD Appverse

## Apps for scientific applications by developers and researchers

### KEY FEATURES

- Build and share apps for your OOD instance
- Central repository for apps
- Apps can be for research or IT functions
- Tiered structure - validated and sponsored apps
- Curation process – maintenance, updates, and training
- AI app integration
- Affinity Groups will publicize the Appverse





# The Appverse Affinity Group

▶ [openondemand.org](#) ▶ [Run OOD](#) ▶ [Administer OOD](#) ▶ [Get Involved](#) ▶ [Support](#)

[Log in](#)

OPEN  
OnDemand

## Community Portal

[Affinity Groups](#)

[Knowledge Base](#)

[People](#)

[Events](#)

### OOD Appverse

community-outreach

Join the conversation and help shape the Open OnDemand Appverse, a collaborative ecosystem for hosting, developing, and sharing apps within the Open OnDemand community.

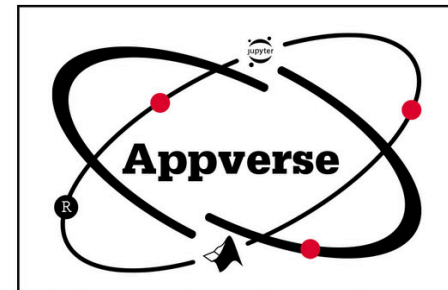
The group explores technical, governance, and user experience aspects of a shared Open OnDemand Appverse, including app hosting infrastructure, security, metadata, developer onboarding, and support for diverse software stacks.

Whether you're a developer, admin, or end user, we welcome your ideas and contributions. Join us to help shape the future of app sharing in Open OnDemand .

Members get updates about announcements, events, and outages.

JOIN

SLACK



#### Upcoming Events

No upcoming events.

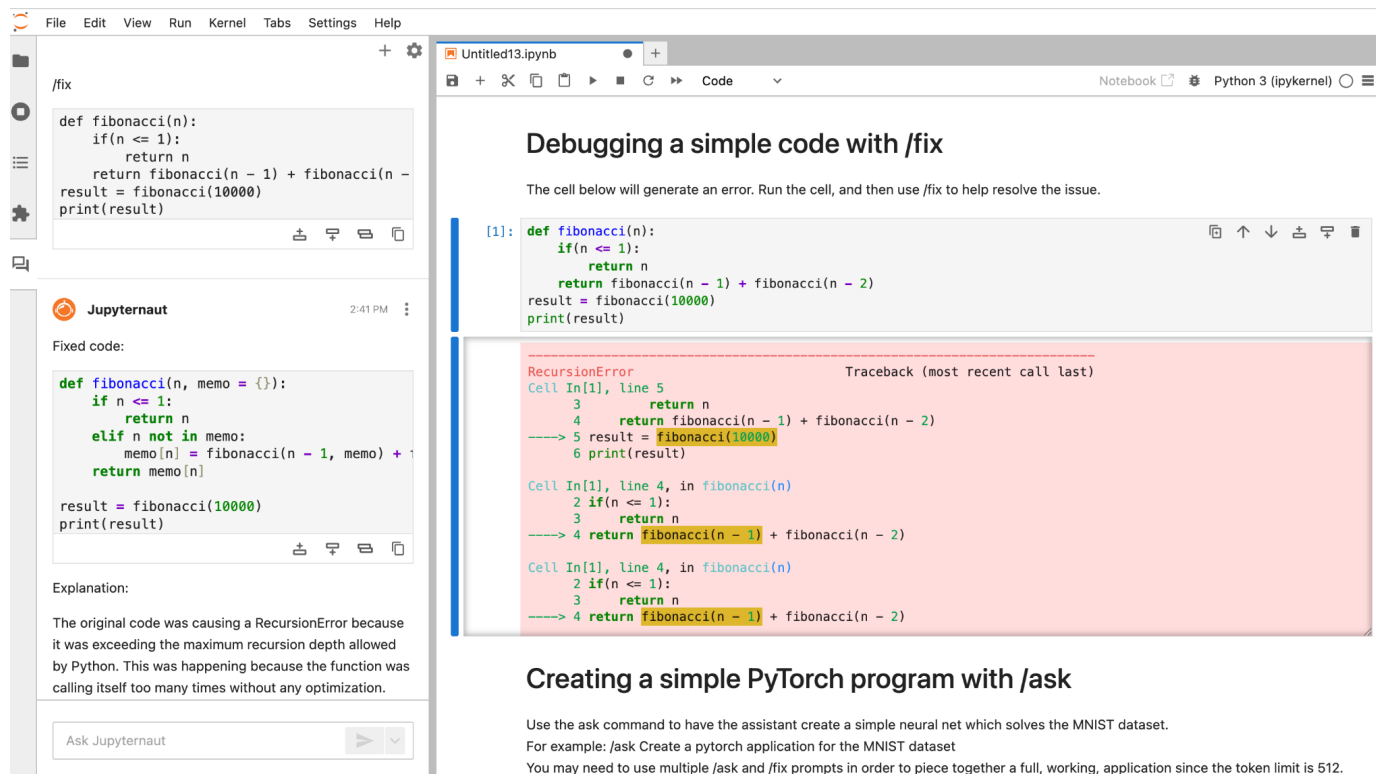
[See past events](#)

[ondemand.connectci.org/appverse](https://ondemand.connectci.org/appverse)



# The Appverse is Coming!

We are gathering information about the existing Open OnDemand apps.



The screenshot displays the JupyterLab interface. On the left, a file browser shows a file named `/fix`. The main area shows a code cell with the following Python code:

```
def fibonacci(n):  
    if(n <= 1):  
        return n  
    return fibonacci(n - 1) + fibonacci(n - 2)  
result = fibonacci(10000)  
print(result)
```

Below the code cell, the JupyterLab interface shows a message from JupyterLab: "Fixed code:" followed by the corrected code using memoization:

```
def fibonacci(n, memo = {}):  
    if n <= 1:  
        return n  
    elif n not in memo:  
        memo[n] = fibonacci(n - 1, memo) + fibonacci(n - 2, memo)  
    return memo[n]  
result = fibonacci(10000)  
print(result)
```

Below the code, an "Explanation:" section states: "The original code was causing a RecursionError because it was exceeding the maximum recursion depth allowed by Python. This was happening because the function was calling itself too many times without any optimization."

On the right, a code cell titled "Debugging a simple code with /fix" shows the same original code as above. Below it, a traceback for a `RecursionError` is displayed, showing the stack of recursive calls. The error message is: "RecursionError: maximum recursion depth exceeded in call".

Below the traceback, a section titled "Creating a simple PyTorch program with /ask" provides instructions on how to use the `/ask` command to create a PyTorch application for the MNIST dataset. It states: "Use the ask command to have the assistant create a simple neural net which solves the MNIST dataset. For example: /ask Create a pytorch application for the MNIST dataset. You may need to use multiple /ask and /fix prompts in order to piece together a full, working, application since the token limit is 512."



# 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)



# Agenda

About Open OnDemand

Community Updates

**Community Stories**

Development and Support

Open Floor Discussion





# Ping Luo



# Open OnDemand on Cluster Misha

Open OnDemand BOF  
PEARC'25



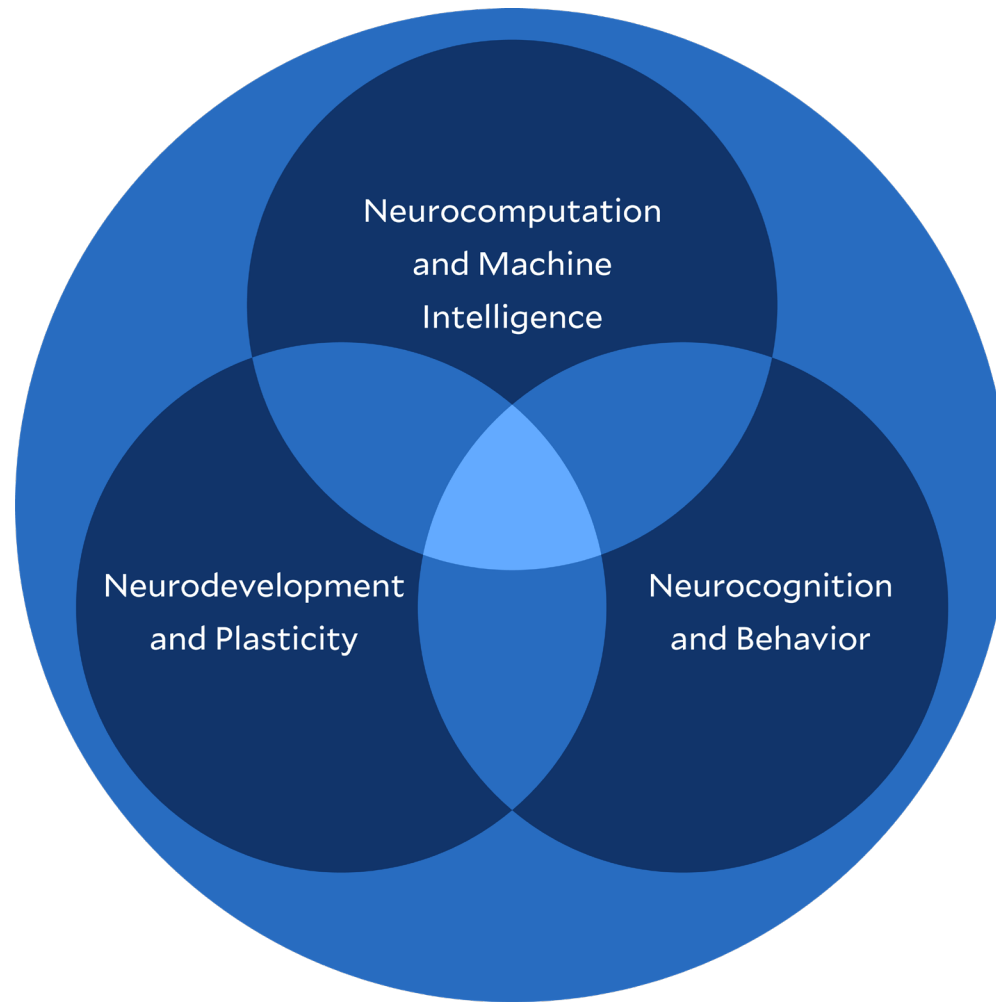
# Wu Tsai Institute Yale University

To understand human cognition  
and explore human potential by  
sparking interdisciplinary inquiry





# Three Centers





# Cluster Misha



- Name honors **Misha Mahowald**, a pioneer in brain-inspired computing
- Managed by the Yale Center for Research Computing and the Center for Neurocomputation and Machine Intelligence of WTI
- 33 GPU nodes (4 cards/node) + 26 CPU nodes + 2 large memory nodes
  - 4 H200 nodes
  - 14 H100 nodes
  - 6 A100 nodes
  - 6 A40 nodes
  - 3 L40S nodes



## WU TSAI INSTITUTE YALE UNIVERSITY | Yale Center for Research Computing

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

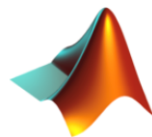
### Pinned Apps A featured subset of [all available apps](#)



Remote Desktop  
System Installed App



Jupyter  
System Installed App



MATLAB  
System Installed App



Code Server  
System Installed App



RStudio Server  
System Installed App

### Inefficient GPU Jobs

No inefficient GPU jobs. GPU jobs from the past two weeks can be viewed [here](#).

### News

#### New GPU job dashboard

06/24/2025 GPU Job Performance Monitor has a new user dashboard with several enhancements, which improve the dashboard's usability and functionality.

#### gpu\_devel up with two A40 nodes

06/16/2025 [gpu\\_devel](#) is up on two GPU nodes with 8 A40 cards, while YCRC is fixing the MIG-enabled A100 node originally allocated to [gpu\\_devel](#).



# Cluster Node Status

Output generated: 2025-07-21 00:56:41 -0400

<div></div>	DOWN	<div></div>	UP	<div></div>	= 100%	<div></div>	< 100%	<div></div>	<= 50%	<div></div>	<= 25%	<div></div>	= 0%
-------------	------	-------------	----	-------------	--------	-------------	--------	-------------	--------	-------------	--------	-------------	------

View usage of all GPU nodes (allocated/total)

gpu	r817u03n07	r817u09n07	r817u15n05	r817u15n06	r817u23n05	r817u23n06	r817u29n05	r817u29n06	r817u35n05	r817u35n06
	32/48	17/48	48/48	1/48	1/48	38/48	17/48	48/48	32/48	1/48
	640G/975G	820G/975G	192G/975G	128G/975G	128G/975G	512G/975G	464G/975G	192G/975G	640G/975G	128G/975G
	h100	h100	h100	h100	h100	h100	h100	h100	h100	h100
	4/4	4/4	4/4	4/4	4/4	4/4	3/4	4/4	4/4	4/4
gpu	r818u29n04	r818u33n04	r818u33n06	r818u33n08	r4507u05n01	r4507u13n01	r4516u01n01	r4516u08n01	r4516u16n01	r4518u01n01
	0/48	17/48	32/48	24/48	1/48	24/48	32/32	1/48	1/48	32/32
	0G/975G	856G/975G	800G/975G	768G/975G	128G/975G	768G/975G	640G/975G	128G/975G	128G/975G	640G/975G
	h200	h200	h200	h200	h100	h100	a40	h100	h100	a40
	0/4	4/4	4/4	3/4	4/4	3/4	4/4	4/4	4/4	4/4
gpu	r4518u05n01	r4518u09n01	r4519u01n01	r4519u04n01	r4519u07n01	r4519u10n01	r4519u13n01	r4519u16n01		
	0/32	0/32	0/32	9/32	9/32	0/32	0/32	0/32		
	0G/975G	0G/975G	0G/1000G	512G/1000G	336G/1000G	0G/1000G	0G/1000G	0G/1000G		
	a40	a40	a100.MIG.20gb	a100	a100	a100	a100	a100		
	0/4	0/4	0/8	4/4	2/4	0/4	0/4	0/4		
gpu_devel	r4516u05n01	r4516u09n01								
	0/32	0/32								
	0G/975G	0G/975G								
	a40	a40								
	0/4	0/4								



☰ Browse Jobs

## 📈 Job Performance Monitor

### 📄 Job Details

👤 User/Group:	nhb25/ying_rex	📄 Job ID:	404716
💡 Job Name:	kvm	📄 State:	COMPLETED
▶ Started:	2025-07-12 19:56	■ Ended:	2025-07-13 04:40
⚠ Inefficiency Count:	195	📄 Total Count:	420

### 🖨 GPU Information

GPU 0: r818u33n06, h200

GPU 1: r818u33n06, h200

GPU 2: r818u33n06, h200

GPU 3: r818u33n06, h200

### 🔍 Search & Filter

# Search by Job ID

Enter Job ID...

🔍 Search

🕒 Search by Time Range

mm/dd/yyyy, --:-- --



mm/dd/yyyy, --:-- --



🔍 Search Time Range

📄 Jobs in selected timeframe will appear here



# Kyriakos Tsoukalas



**OPEN**

# **OnDemand** at Colgate University

- Web Terminals
- Interactive Apps
- VScode
- Data transfers via HTTP
- Announcement visibility
- Batch Queue Monitoring
- Single-user to Multi-user Apps
- Single Sign-On with 2FA
- Research Pipelines
- Non-Edge Login Nodes
- Multiple Schedulers
- Resource Allocation
- File Management





# Rodgers Kimera





AFRICAN  
CENTERS  
OF EXCELLENCE  
IN BIOINFORMATICS &  
DATA-INTENSIVE SCIENCE



# Open OnDemand Use case at ACE Uganda and ACE Mali

July 23, 2025 – BOF-OOD, PEARC25, Columbus, Ohio

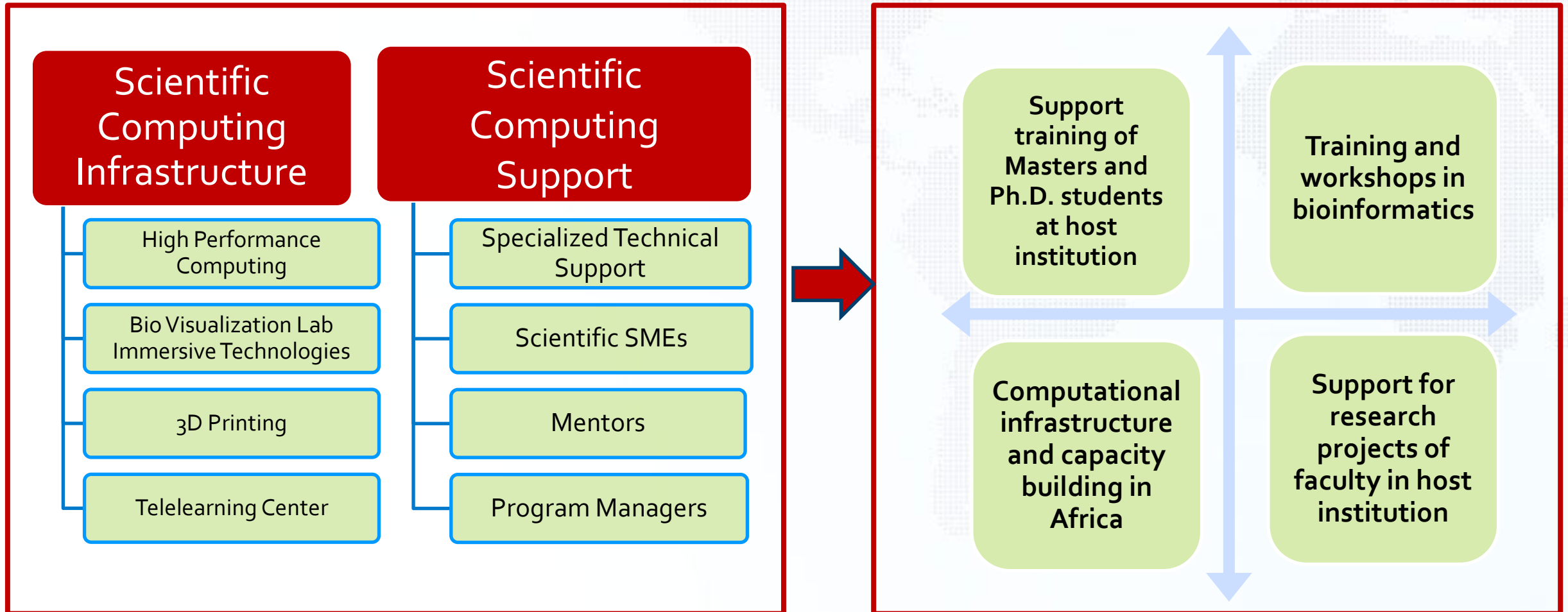
## PRESENTED BY

Rodgers Kimera,  
Lead HPC Engineer,  
Research Data and Communication Technologies,  
ACE Uganda, ACE Mali

[rkimera@researchdata.us](mailto:rkimera@researchdata.us)



# African Centers of Excellence in Bioinformatics





# Supporting Bioinformatics + Data Science in Africa



Cluster	CPUs	RAM	Storage
ACE Uganda	15,232	5.376 TB	190TB NetApp, 160 TB Synology
ACE Mali	2,560	1.79 TB	150TB Synology



# Why **OPEN** OnDemand at ACE?



Simplifies remote HPC access, enabling researchers to focus on science while IT staff streamline support, requiring minimal Linux skills and offering global, browser-based usability.



## Challenges

- Initial deployment and configuration
  - Getting it set up right?
- User training and adoption
- Application Integrations

## Next Steps

- Customize the dashboard to add apps, motd, etc.
- Adding Applications such as RStudio, Jupiter Notebooks, etc..
- User training




# OOD Login



1,141) - rkimer... ACE-Uganda Web Log...

https://login.ace.ac.ug/idp/profile/SAML2/Redirect/SSO?execution=e1s2 80% ★



**AFRICAN  
CENTERS  
OF EXCELLENCE**  
IN BIOINFORMATICS

**Username**

**Password**

☐ Don't Remember Login

☐ Clear prior granting of permission for release of your information to this service.

Login



# OOD Dashboard



←

→

↻

🔒

https://ondemand.ace.ac.ug/pun/sys/dashboard

☆

🛡️

⬇️

👤

📁

☰

Gmail

Maps

Inbox (1,141) - rkimer...

ACE-Uganda Web Log...

Other Bookmarks

Open OnDemand

Files ▾

Jobs ▾

Clusters ▾

Interactive Apps ▾

📄

?

👤

🔗

OPEN

➡️

ACE HPC cluster Shell Access

➡️

OnDemand

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

powered by

OPEN

➡️

OnDemand

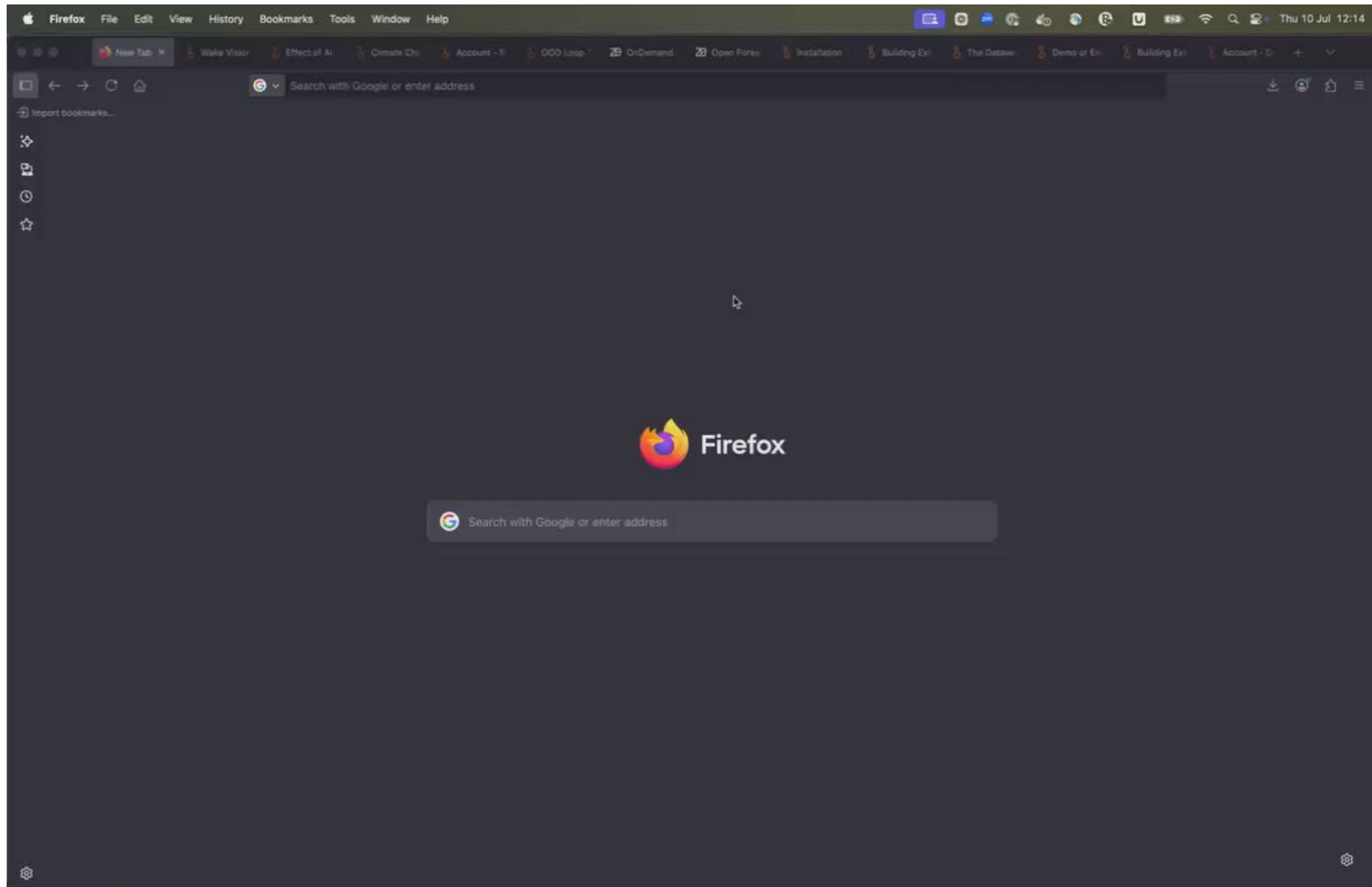
OnDemand version: v2.0.23



# William Horka



# OnDemand Loop





# Agenda

About Open OnDemand

Community

Community Stories

**Support and Development**

Open Floor Discussion





# 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 tips and tricks will be starting soon***

[openondemand.org/events](https://openondemand.org/events)



# Established Support Mechanisms



## Discuss on Discourse

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

[openondemand.org/discourse](https://openondemand.org/discourse)



## Slack Workspace

Communicate and collaborate with the project team and community members.

[openondemand.org/slack](https://openondemand.org/slack)



## GitHub Documentation

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

[openondemand.org/docs](https://openondemand.org/docs)



## Constant Contact Newsletter

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

[openondemand.org/newsletter](https://openondemand.org/newsletter)

[openondemand.org/support](https://openondemand.org/support)



# Customizable Support Subscription

- High-level customer support for implementing and maintaining Open OnDemand
- Agreement that commercial or industry entities often require
- Contributes sustainable, ongoing funding for Open OnDemand

## Benefits of Support Subscriptions:

**Priority  
GitHub issue  
support**

**Exclusive access  
to a priority  
support channel  
on Discourse**

**Consulting  
Services  
available**



Pilot will run through 2025

Additional services will be introduced as we learn

[openondemand.org/subscribe](https://openondemand.org/subscribe)



# Support Partners

- Actively working to identify partners worldwide to provide first- and second-level support
- Open OnDemand technical team will provide third-level support and dedicated support, in collaboration with partners, on an as-needed basis



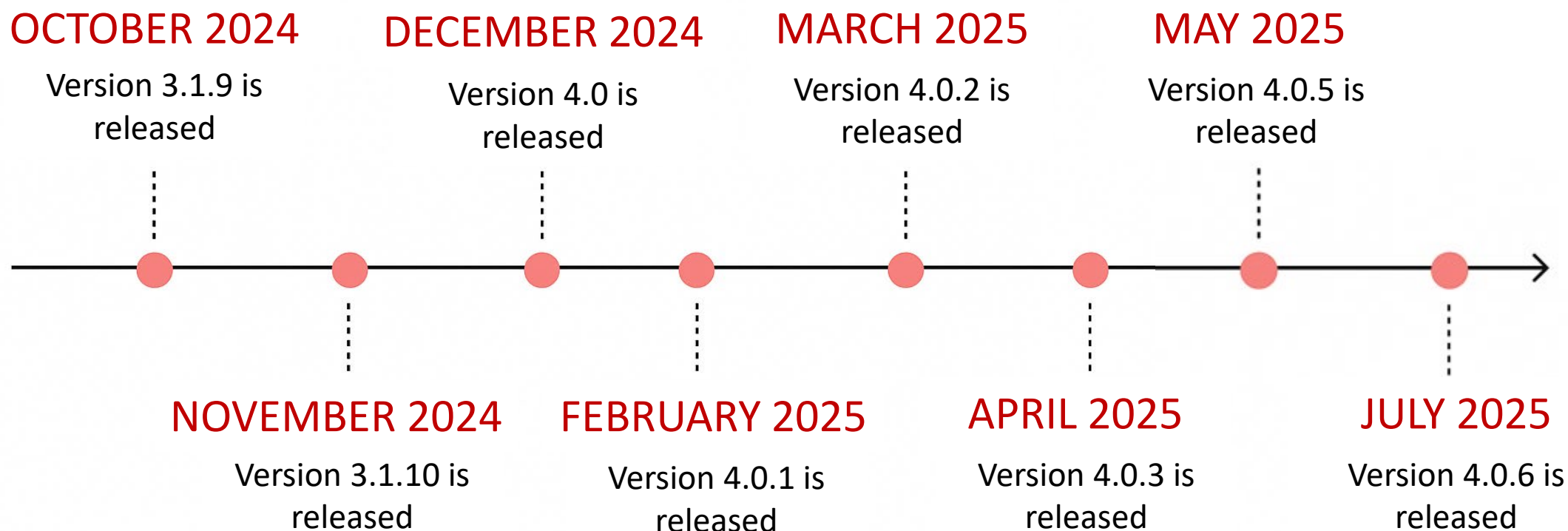
## Benefits of Support Partners:

- Native language support available during local business hours
- Enables clients to purchase support from trusted partners with region-specific knowledge
- Ensures clients third-level support for Open OnDemand during tender process

[openondemand.org/subscribe](https://openondemand.org/subscribe)



# Development Timeline





## 4.0 Features and Enhancements

- Global batch connect items. Define once, use in any interactive application.
- File editor interface refreshed
- XDMoD efficiency widget update to include CPU usage, memory usage and elapsed time.
- New 'data-label' directive to dynamically change labels on interactive application's forms.
- System Status application to show current cluster usage, status, details
- Interactive application's saved settings can now be edited and deleted.



# Community Contributions

OPEN  nDemand



Genentech



SAPIENZA  
UNIVERSITÀ DI ROMA

[openondemand.org/community](https://openondemand.org/community)



# 4.1 Categorization – 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 @ disk media / access

**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.mktmpdir  
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

[openondemand.org/github](https://openondemand.org/github)



## 4.1 Features and Enhancements

- Widgets for file quotas and balances
- Major updates to the Project Manager – improved file management, templates, collaborative projects
- ServiceNow integration with support tickets
- Module browser to view module information
- Enhanced support for rendering and viewing HTML files
- Global batch connect items can reconfigure bc\_ form items.



Thank You!

# Open OnDemand User Group Meeting

*Emily Moffat Sadeghi,  
Julie Ma, Dhruva Chakravorty*



[www.menti.com](https://www.menti.com)

7980 2306