OPEN OnDemand

SC 26
Open OnDemand BoF

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Emily Moffat Sadeghi



Ohio Supercomputer Center
University at Buffalo Center for Computational Research
TEXAS A&M UNIVERSITY
MGHPCC MASSACHUSETTS GREEN HIGH PERFORMANCE COMPUTING CENTER
VIRGINIA TECH
University of Colorado Boulder
UNIVERSITY OF MARYLAND

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openondemand.org/sc26

Audience Survey

OPEN OnDemand

Go to menti.com

New survey questions thanks to the OOD technical committee

menti.com

Agenda

Intro & Key Items

Technical Plans

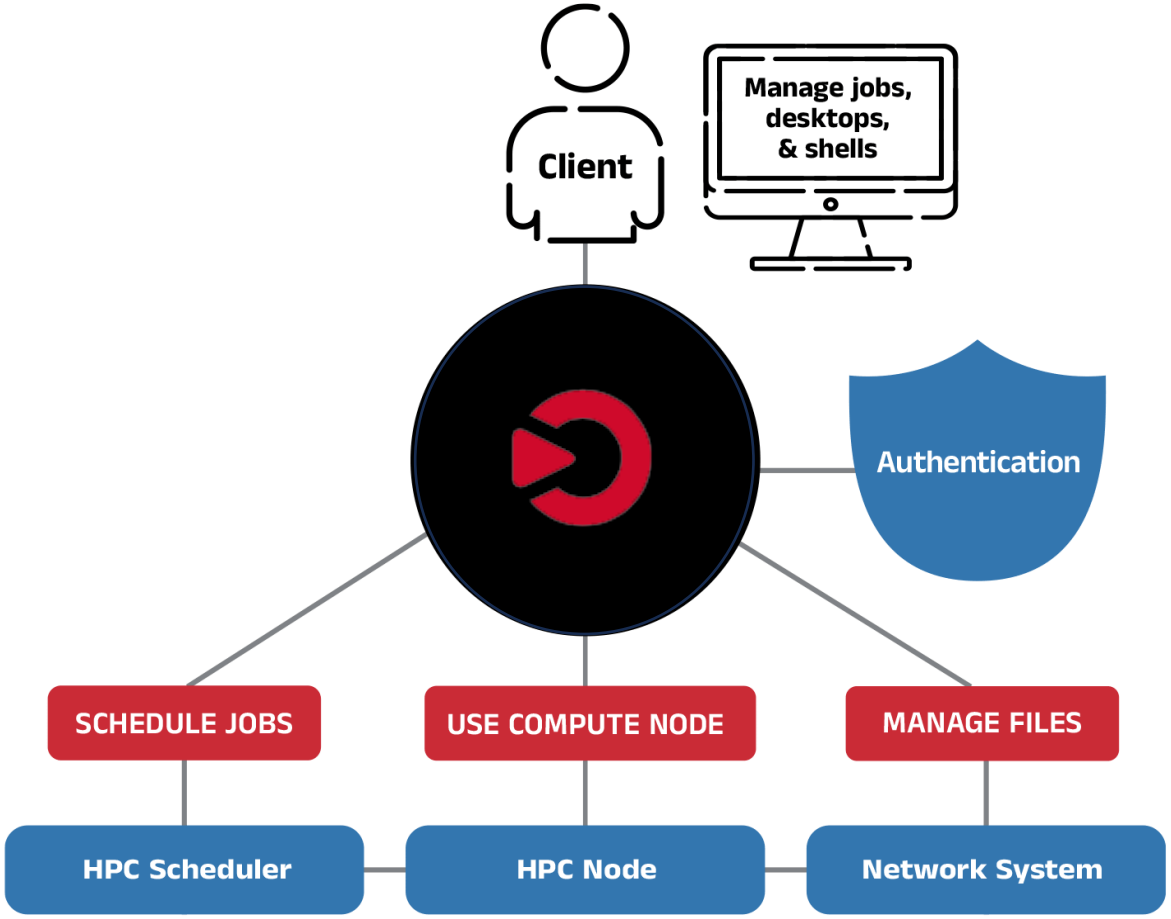
Community Updates

Community Stories

Q&A



About Open OnDemand



Secure, browser-based access to research computing, AI, and HPC

Dramatically lowers barriers to advanced computing

openondemand.org/about-us

Why Open OnDemand?

OPEN OnDemand

The fastest path from login to research.



Low barrier to entry

No command line needed; users of every skill level get started fast.



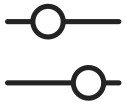
Use any device

Just a browser, even on a phone or tablet.



Free & open source

Runs on local and cloud resources, backed by an active global community.



Very configurable

Add software, dashboards, and tools tailored to your site and your users.

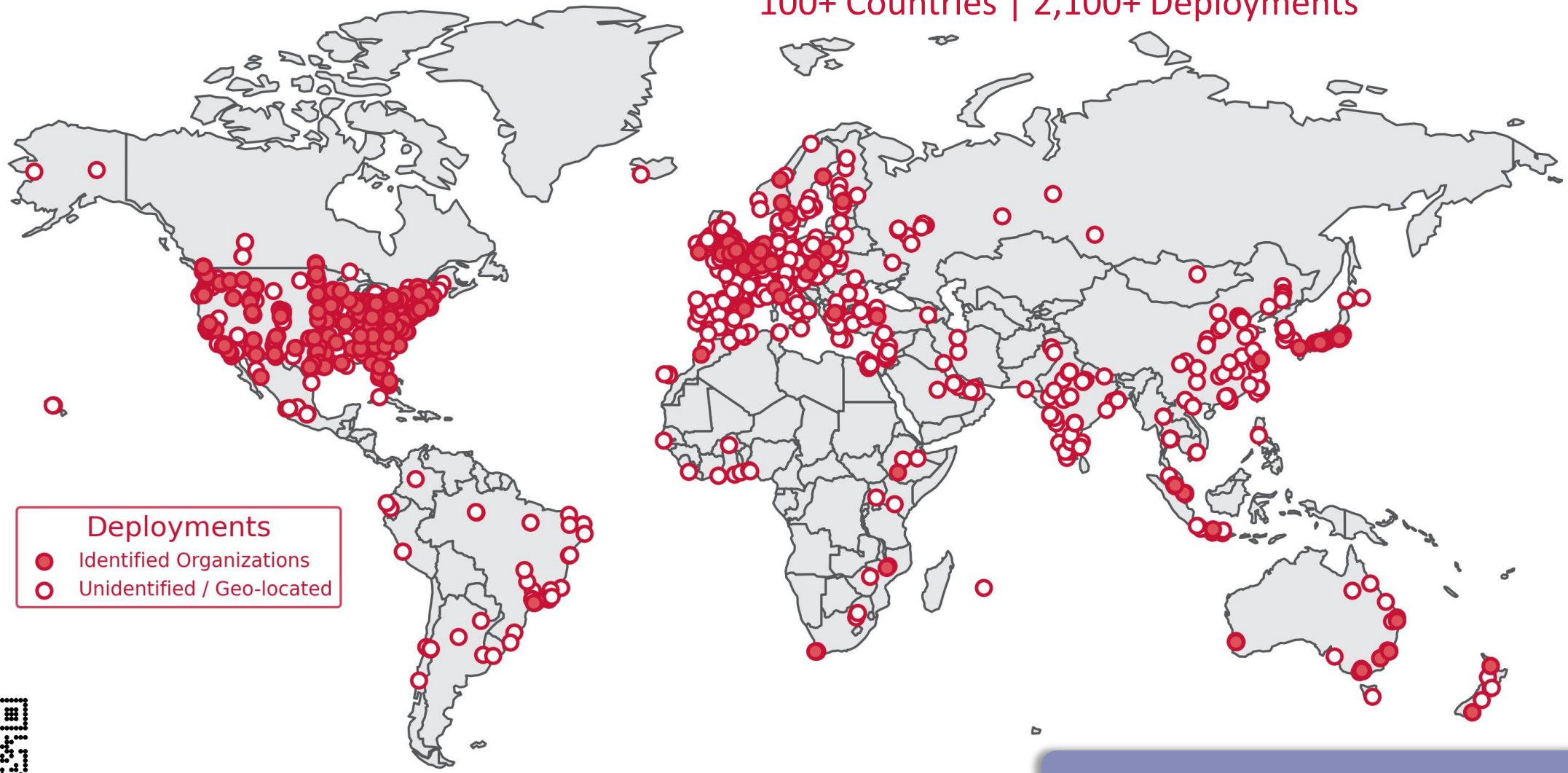


openondemand.org

Deployed Worldwide

OPEN OnDemand

100+ Countries | 2,100+ Deployments



openondemand.org/locations

Example Deployments

OPEN OnDemand

Nonprofit / Research centers

Cincinnati Children's · RIKEN Center for Computational Science · PSC · CSC · SwRI Southwest Research Institute · Seattle Children's Hospital · Research · Foundation

International academia

University of Manitoba · TRUBA Turkish Science e-Infrastructure · Instituut-Lorentz · University of Cambridge · UNSW Sydney · Universiti Malaya

Government

Federal Reserve Bank of Kansas City · INL Idaho National Laboratory · South Florida Water Management District · Berkeley Lab · Pacific Northwest National Laboratory · Federal Reserve Bank of San Francisco

Minority-serving institutions

Rutgers The State University of New Jersey · NM State University · UTSA The University of Texas at San Antonio · Texas Tech University · University of Maryland · The University of Arizona

Check the full list of identified organizations online and let us know if yours is missing.

Private academia

Harvard University · Caltech · Yale · Duke University · Princeton University · Stanford University

Public academia

University of Oregon · University of Colorado Boulder · University of Vermont · UAB The University of Alabama at Birmingham · UF University of Florida · VT Virginia Tech

Industry

Alto Neuroscience · Nor-Tech People Friendly Technology · SpaceX · NVIDIA · CORVID Cyberdefense · Microway

openondemand.org/orgs

Customizable Support Subscription

OPEN OnDemand

Each tier includes everything in the tier before it →

FREE

Community support for everyone

- ✓ Discuss on Discourse
- ✓ Interact on Slack
- ✓ Read the Docs
- ✓ Receive the Newsletter
- ✓ Public office hours

No cost · open to all

BASIC

Priority support and early releases

- ✓ Private Discourse forum and GitHub access
- ✓ Early access to updates

★ Includes Early Access

PRO

+ Private support and event exclusives

- ✓ Scheduled sessions (3 or 6 per quarter)
- ✓ Recognition at events
- ✓ Special event invitations
- ✓ Exclusive brand items

★ Includes Early Access

ELITE

+ More private support and priority staff access

- ✓ Flexible support sessions (6 or 12 per quarter)
- ✓ Support via email
- ✓ Developer sessions at major public events

★ Includes Early Access

openondemand.org/subscribe

Early Access Program

NEW RELEASE PROCESS **Launched November 3, 2026 for Support Program subscribers**

~1 week
Staging

3–5 weeks
Early access, subscribers only

Then
Public release for everyone

Early access: Support Program subscribers get the password for the staging, nightly and early-access repos

Motivation
Subscriber funding keeps Open OnDemand maintained for the long term

Community input
Piloted first, with feedback gathered at conferences, including on security

Security
High/critical fixes: public mitigations or patched binaries during early access. Source code is always public

Carefully planned
Release schedule, access control, repo management, SBOMs, CI automation and docs

openondemand.org/subscribe

What's Coming Soon?

Workflows Expansion (e.g. Appverse integration)

New Virtual Desktops (e.g. Wayland vs X)

Better Docs (e.g. markdown hosting)

Security Improvements (e.g. proxy update scoping)

Dev Automation (e.g. start-to-finish scheduler testing)

AI Tools Incorporation (e.g. MCP API)



openondemand.org/issues

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Software Releases Since SC25

Open OnDemand Version 4.1

- HTTPS proxying to secure origins
- Integrated module browser
- ThinLinc integration
- Job Composer deprecation
- Adds support for RHEL 10

Open OnDemand Version 4.2

- Accessibility conformance with ADA/WCAG – VPAT/ACR issued
- Software Bill of Materials (SBOM)
- Debian 13 / Ubuntu 26.04 support
- Docker demo container

openondemand.org/releasenotes

Lmod Module Browser

OPEN OnDemand

Search Modules

python

Cluster

All Clusters

Showing 3 results

Openai Python

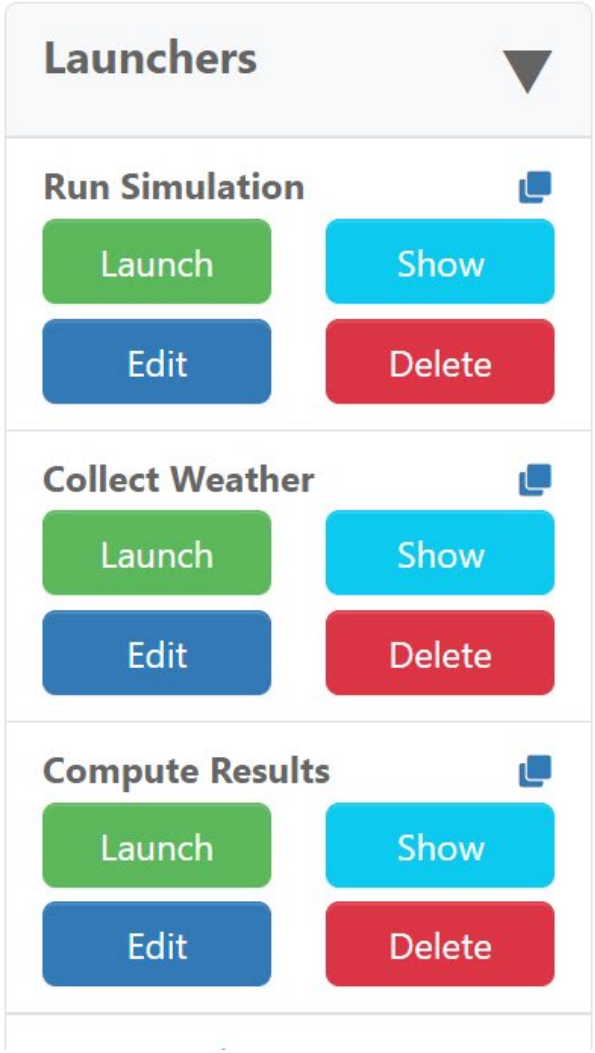
Python

Available modules: (select version)

Cluster	Versions
Ascend	3.12 3.10
Cardinal	3.12
Pitzer	3.12 3.10

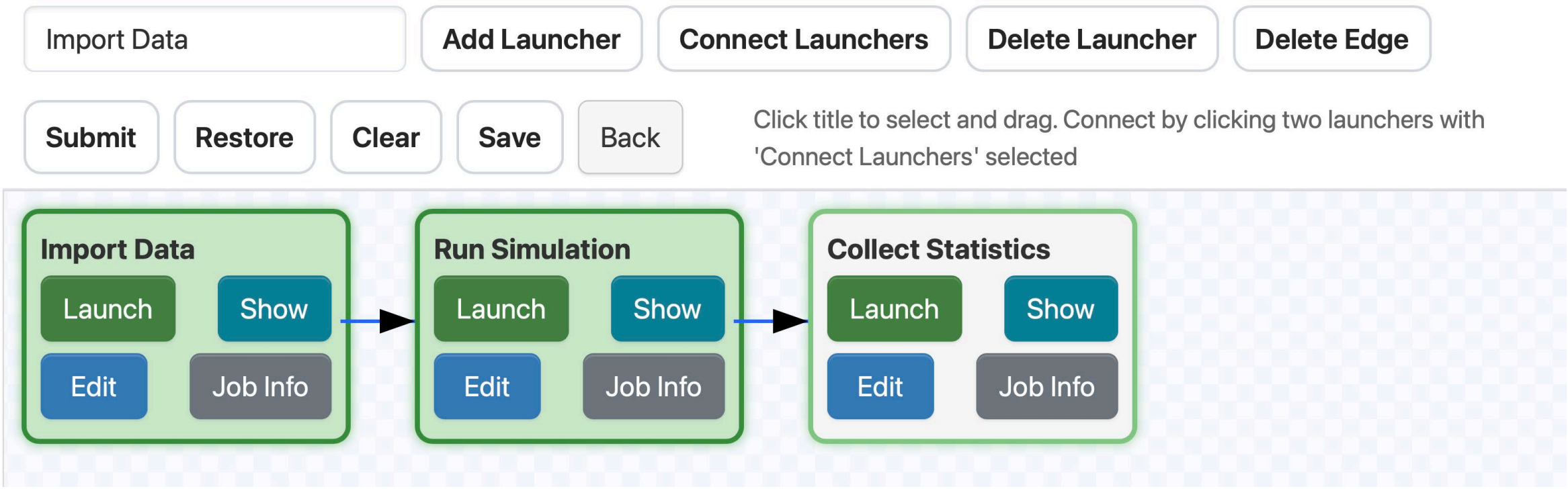
Project Manager

OPEN OnDemand





Project Manager: Workflows



Version 4.3

Areas of Focus

- Reducing support staff burdens
- User experience and customizations
- Smarter batch connect
- Reliability and ecosystem improvements

Examples

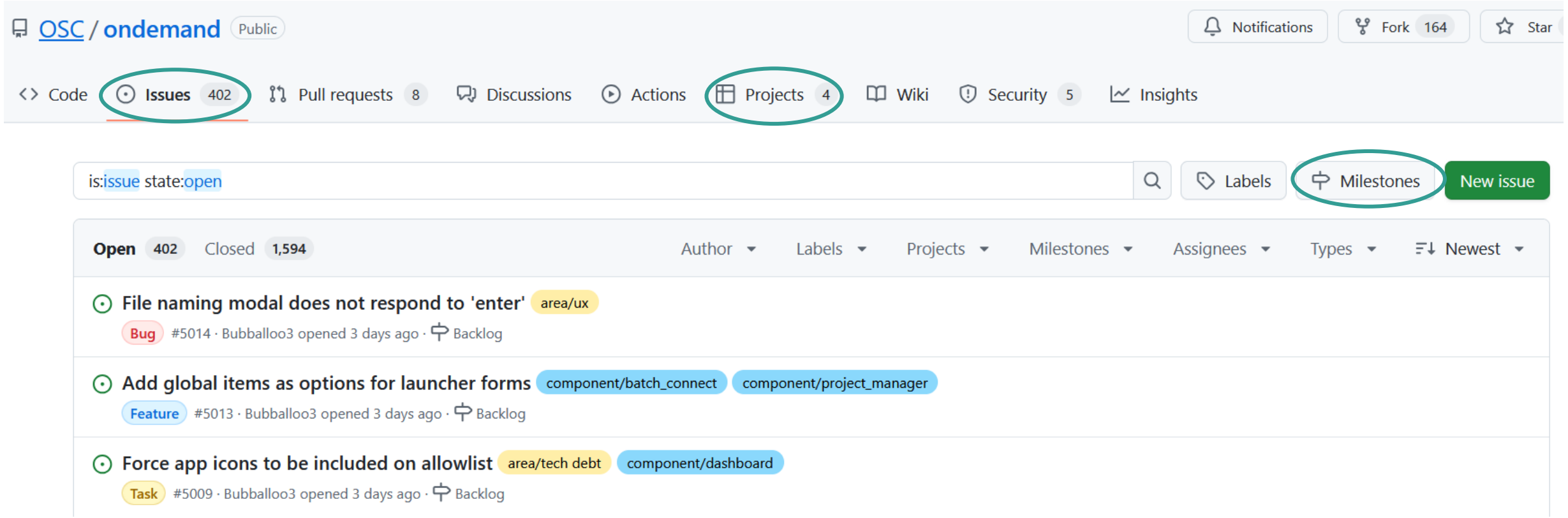
- Shell app and mobile improvements
- More automatic attributes and smarter defaults
- ACCESS resource provider dashboard widgets
- Pinned apps, file favorites, and dark mode (all WIP)

openondemand.org/github

View the Action

OPEN OnDemand

GitHub Main Repository: ondemand



openondemand.org/github

How Can You Get Involved?

Ask & Answer
Discourse questions, troubleshooting, support

Share Feedback
Bug reports, feature ideas, issue comments

Improve the Project
Docs, code, customizations, adapters, apps

Share Your Experience
Conference presos, case studies, affinity groups, committees

openondemand.org/get-involved

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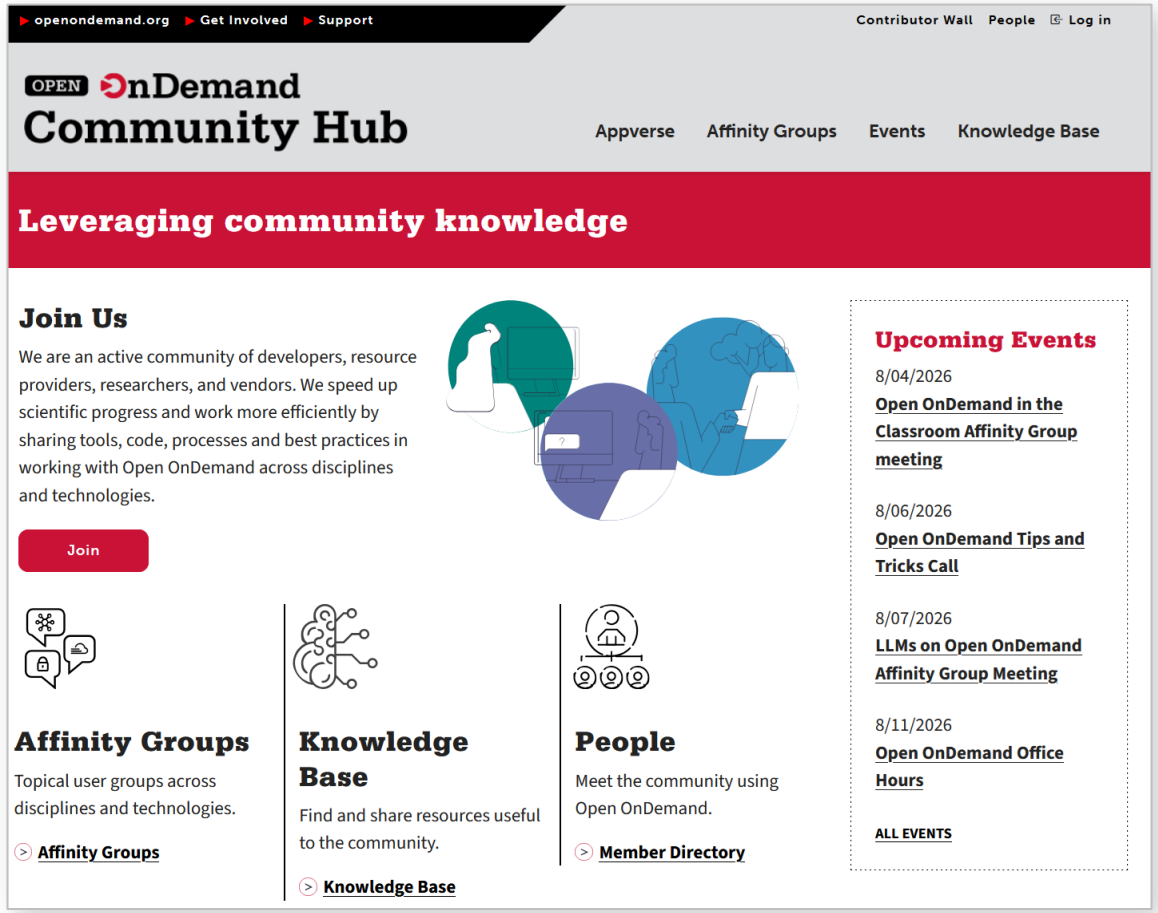
Community Hub

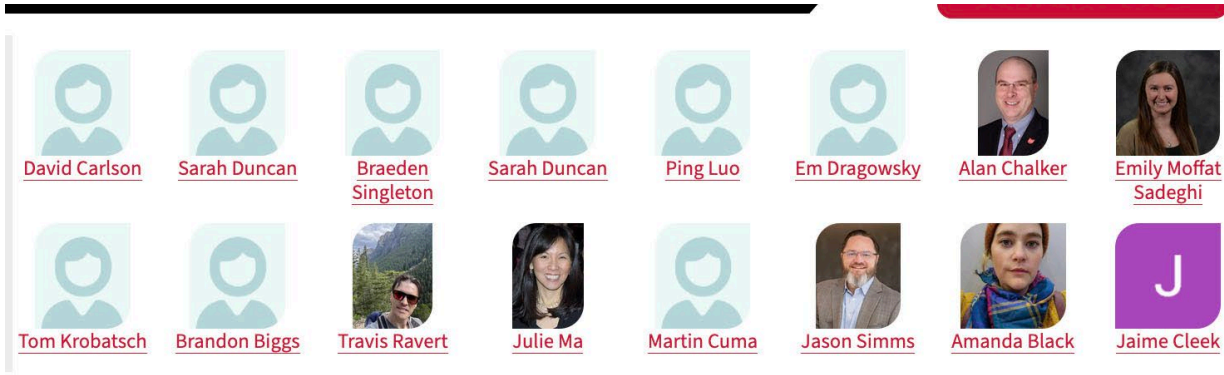


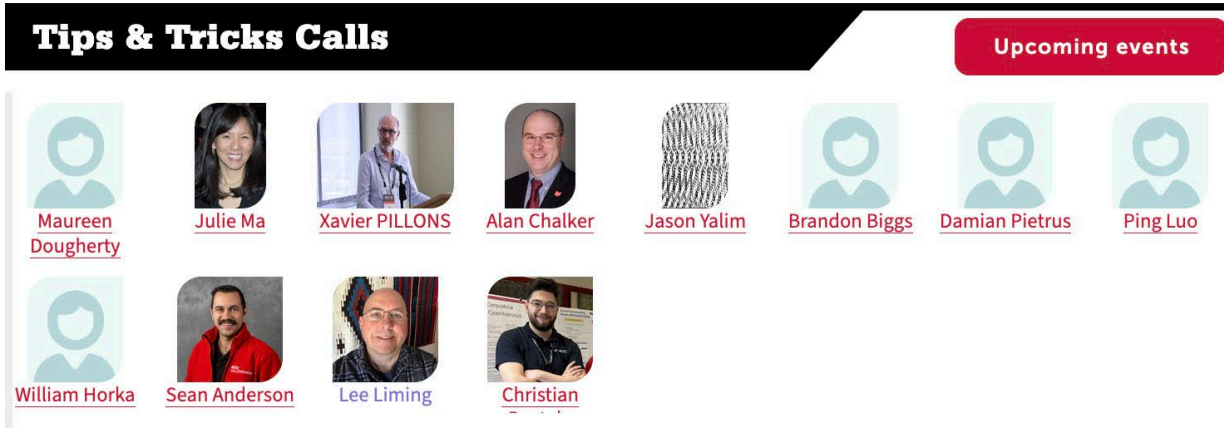
- **Affinity Groups** by discipline and technology
- **Events** office hours and tips & tricks calls
- **Knowledge Base** of shared resources
- **People Directory** of community members
- **The Appverse** community app catalog
- **The Contributor Wall**
  recognizing community contributions

openondemand.org/hub

Contributor Wall

- Recognizing the contributions of our community
- Launched at GOOD26 in March 2026
- Add your Discourse and GitHub handles to your profile to show your work on the grid!





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Community Events

OPEN OnDemand

Expanded times for our global community



Tips & tricks calls

Community-hosted webinars in every region

Americas	EMEA	Asia Pacific
Hosted by the University of Utah	Hosted by Do IT Now Group	Hosted by Do IT Now Group
Dec 3 · 1:00 PM ET	**Dec 3 · 4:00 PM CET**	**Date to be announced**



Open office hours

Troubleshooting help and community discussion with our development team,

2nd Tuesday of every month · on Zoom

Session 1 **9:30–10:30 AM ET**
14:30 UTC · 15:30 CET · 01:30 AEDT (+1)
Best for the Americas, Europe & Africa

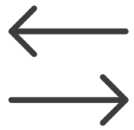
Session 2 **2:30–3:30 PM ET**
19:30 UTC · 20:30 CET · 06:30 AEDT (+1)
Best for the Americas & Asia Pacific

openondemand.org/events

Affinity Groups

Share what works across institutions

Affinity groups connect people tackling the same problems at different sites, so no one has to solve them alone.



Collaborate across institutions

Swap configs, apps, docs and lessons learned with peers at other sites.



Meet and make progress

Regular meetings keep the momentum going, turning conversations into shared solutions.



Join a group, or start one

Find a group that you want to join, or request a new group and we'll help you launch it.

Upcoming meetings

DEC 1 — **OOD in the Classroom**
Tue · 2:00–3:00 PM ET

DEC 2 — **OOD Appverse**
Wed · 3:00 PM ET

DEC 4 — **LLMs and OOD**
Fri · 2:30–3:00 PM ET

JAN 13 — **Security Best Practices**
Wed · 2:30–3:00 PM ET

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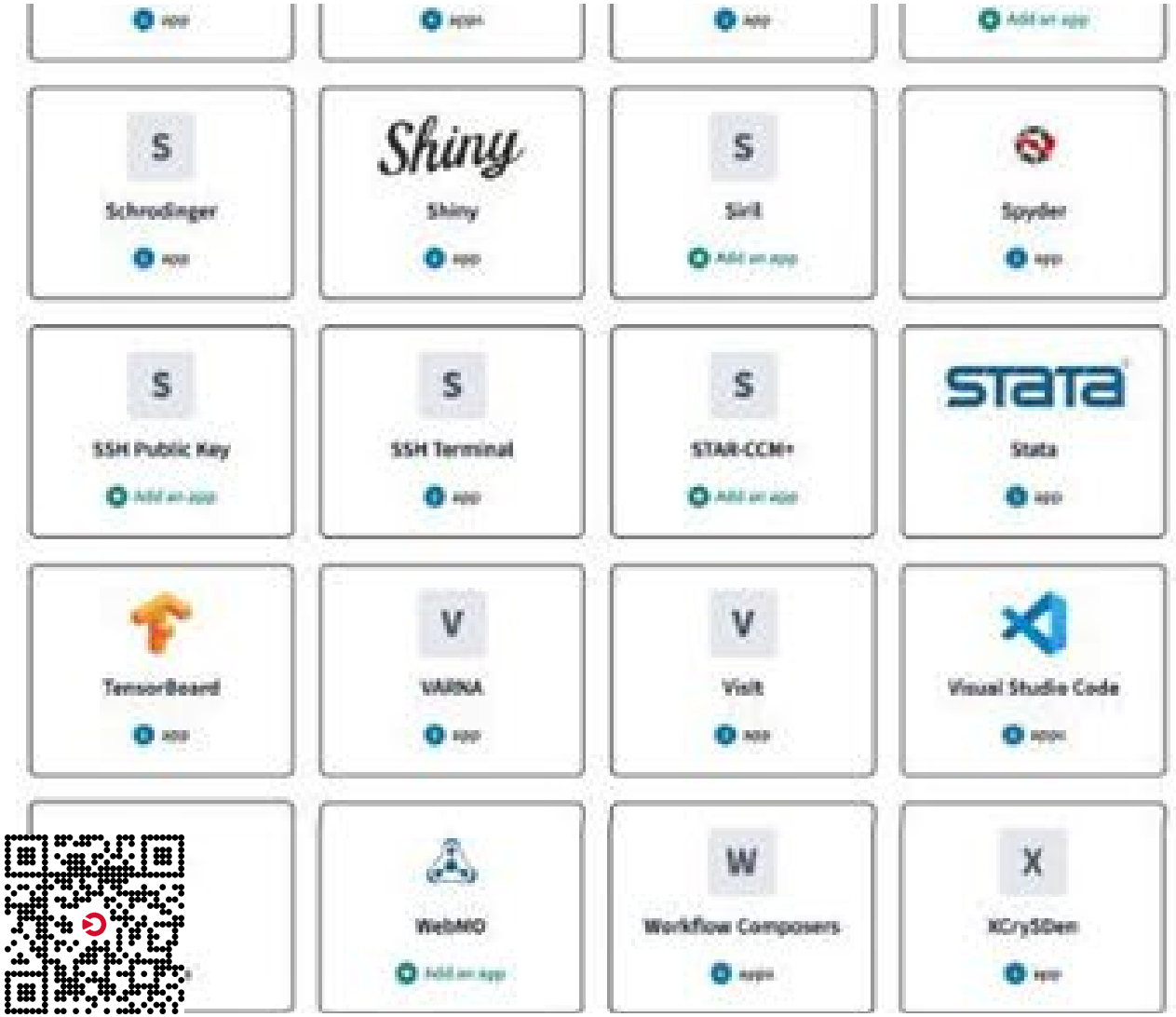
The Appverse has launched!

OPEN OnDemand Appverse



A community-driven catalog for Open OnDemand apps

132 Apps cataloged

79 Software Packages

19 Contributing Organizations
OSC, Harvard/FASRC, Fred Hutch, TAMU, Utah CHPC, WFU , NeSI, RIKEN, DoIT Now/EESSI & more

openondemand.connectci.org/appverse

Join our Committees

Committees are integral to our governance as an open source project.



Technical Committee

Oversees software decisions; guides PRs, bug fixes, releases and updates.

Accomplished: Guided maintainers on technical decisions.

Goals: Stronger coupling with maintainers.

Leads: Tom Krobatsch, UTK; Simon Leary, UMass; Jeff Ohrstrom, OSC



Contributor Guide

Maintains tutorials and community resources used in the annual GOOD Contributor Jam.

Accomplished: Created the first committee-generated section of the Contributor Jam Guide

Goals: Incorporate the community section in the Contributor Jam at GOOD27

Lead: Ping Luo, Yale; Martin Cuma, University of Utah



User Documentation

Organize the docs so admins can find what they need, and facilitate greater community participation.

Accomplished: Initiated move to markdown-based syntax

Goals: Complete move to MyST format, assess docs structure

Lead: Sarah Duncan, Harvard



Community Engagement

Builds community through affinity groups, calls, events and partnerships.

Accomplished: Formalized Award and Certificate programs

Goals: Establish "Welcome Wagon" and Community Highlights

Lead: Sean Anderson, WFU; Jason Simms, Swarthmore

openondemand.org/get-involved

Thank you, Community

Open OnDemand is built by all of you

Thank you for every app, meeting, review, answer and idea you've shared with the community.

Appverse

Sharing apps for everyone to use, including EESSI's 25 new apps

Affinity Groups

Leading and joining groups, and hosting tips & tricks calls worldwide

Committees

Volunteering on our four governance committees

GitHub

Contributing code, pull requests, bug reports and reviews

Discourse & Slack

Answering questions and helping peers solve problems

Documentation

Improving the docs so every new site gets started faster

See yourself on the Contributor Wall at the Hub →

openondemand.org/hub

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Open OnDemand at Swarthmore and Lafayette Colleges

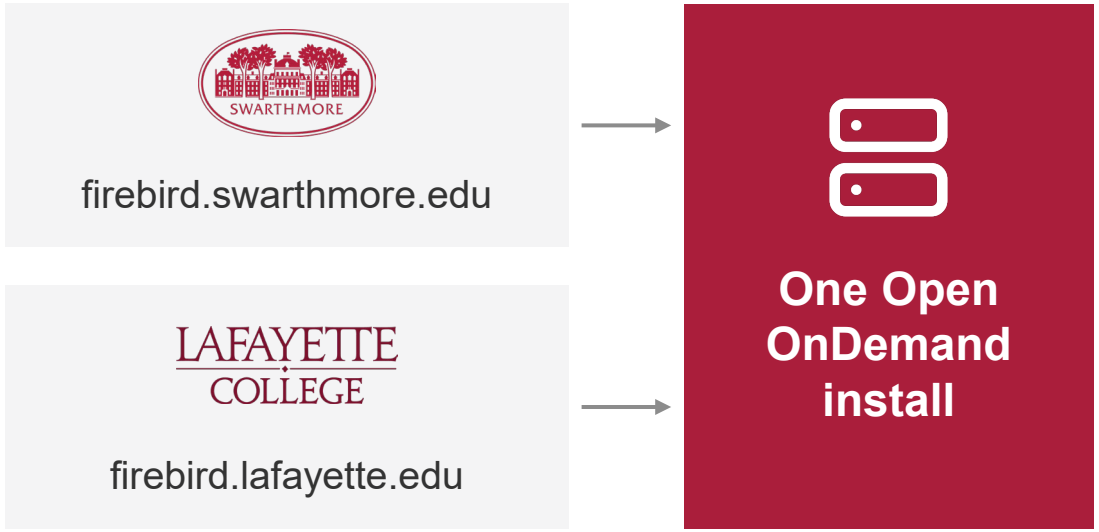
Jason L. Simms, Ph.D., M.P.H.
Research Computing Manager, Swarthmore College





Solved: identity and onboarding

Native at both schools



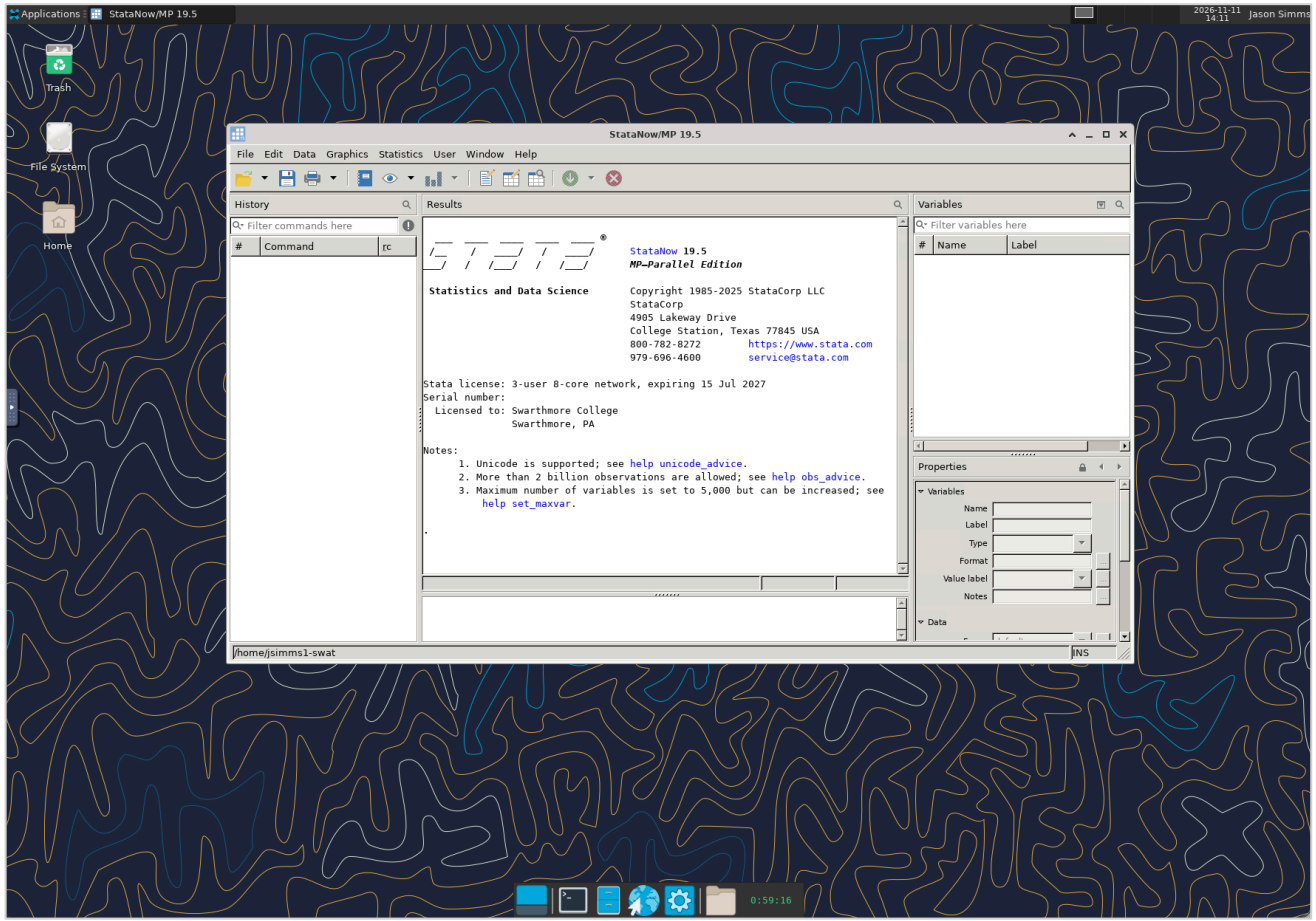
Per-domain branding (logo, domain, help links) makes everyone a first-class citizen, not a guest.

Onboarding in minutes

1. **Name and NetID**
   All we need to create an account
2. **Campus SSO**
   Familiar credentials, via CILogon
3. **Up and running**
   In minutes; ideal for whole classes

SSH keys only for users who want traditional command-line access.

Enabled: scaling up on familiar tools



StataNow/MP in a Firebird virtual desktop session

Same software, more power

Familiar desktop
Stata, MATLAB, Mathematica, Rstudio, etc. in a point-and-click environment

Cluster horsepower
More powerful versions of those packages, on cluster hardware

Projects that grow
Class work and research scale up without a new workflow

Supported: a very lean team

LAFAYETTE COLLEGE

SWARTHMORE



Files

Upload, download, and edit without scp



Shell

A terminal in the browser, no client setup



Desktop

GUI apps without X11 forwarding



Modules

Browse installed software visually



Job queue

See and manage Slurm jobs at a glance

Less command-line friction for users means less direct support from us.

At a large center, these are conveniences.
For a small team, they are capacity.

Scaling your MATLAB and Simulink workflows in Open OnDemand

Sam Marshalik, Product Manager – MATLAB Parallel Server

Nov 2026 at SC26 - Chicago

Stop by our booth: #4442

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Learn, Teach, and Research with MATLAB and Simulink



6,500+ **colleges and universities worldwide use MATLAB and Simulink**

Students

Learn and complete coursework

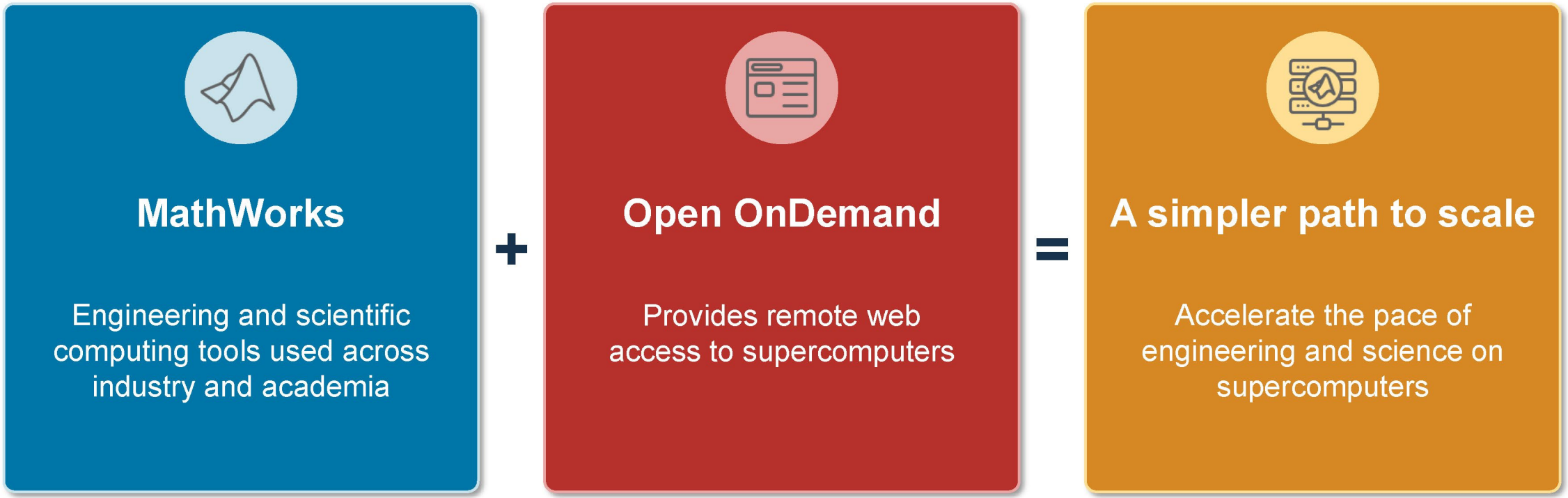
Educators

Teach with familiar tools and resources

Researchers

Develop, analyze, and scale research

MathWorks and Open OnDemand enable users to scale their work



There are multiple ways to run MATLAB in Open OnDemand

INTERACTIVE

NON-INTERACTIVE

Command line

Run MATLAB without a UI using the command-line.

Jupyter

Run MATLAB in your existing Jupyter environment.

Run MATLAB with –batch

Submit automated MATLAB jobs through the Open OnDemand environment.

Browser-based

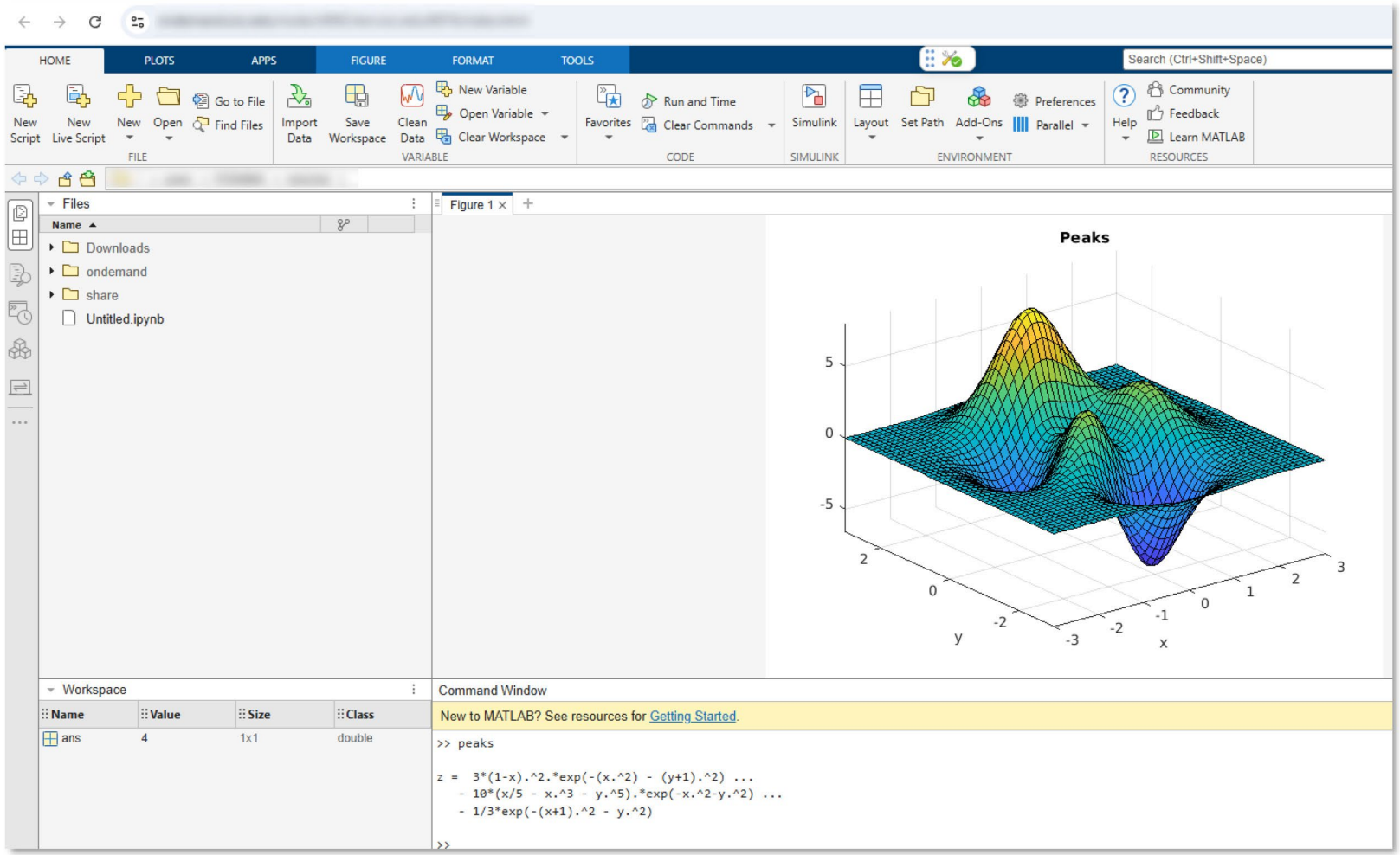
Use matlab-proxy for browser-based MATLAB.

Linux desktop

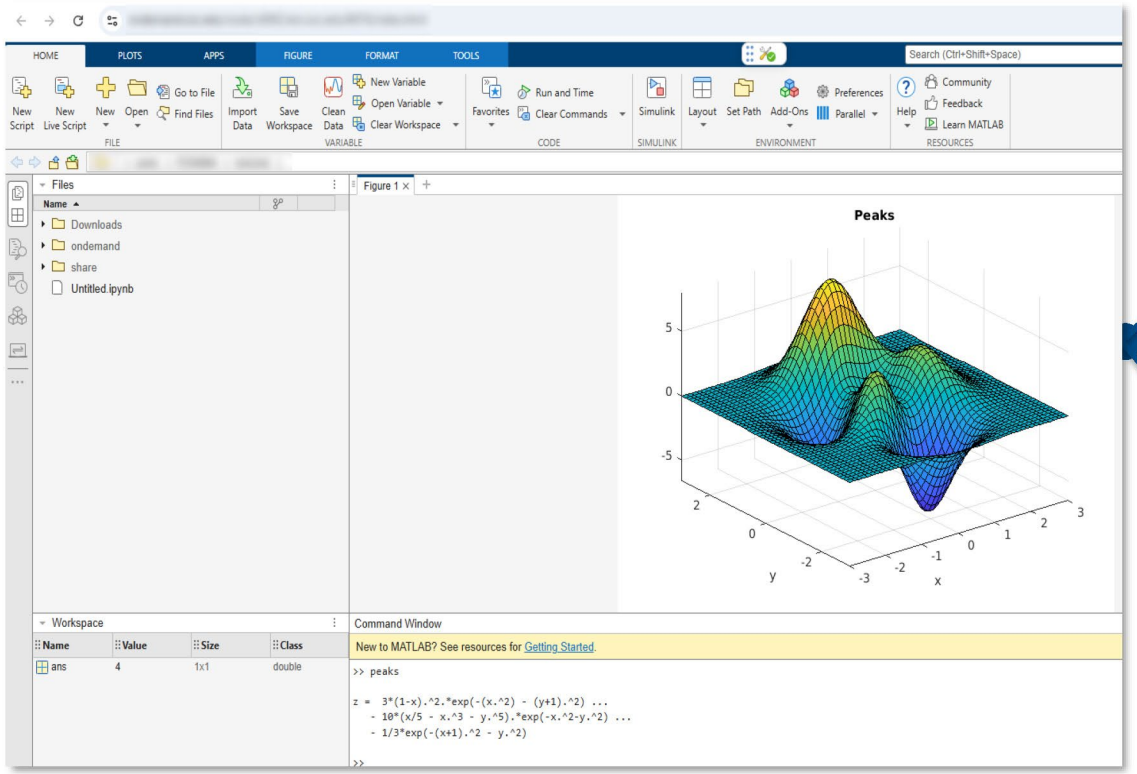
Launch a desktop application using noVNC or a similar service.

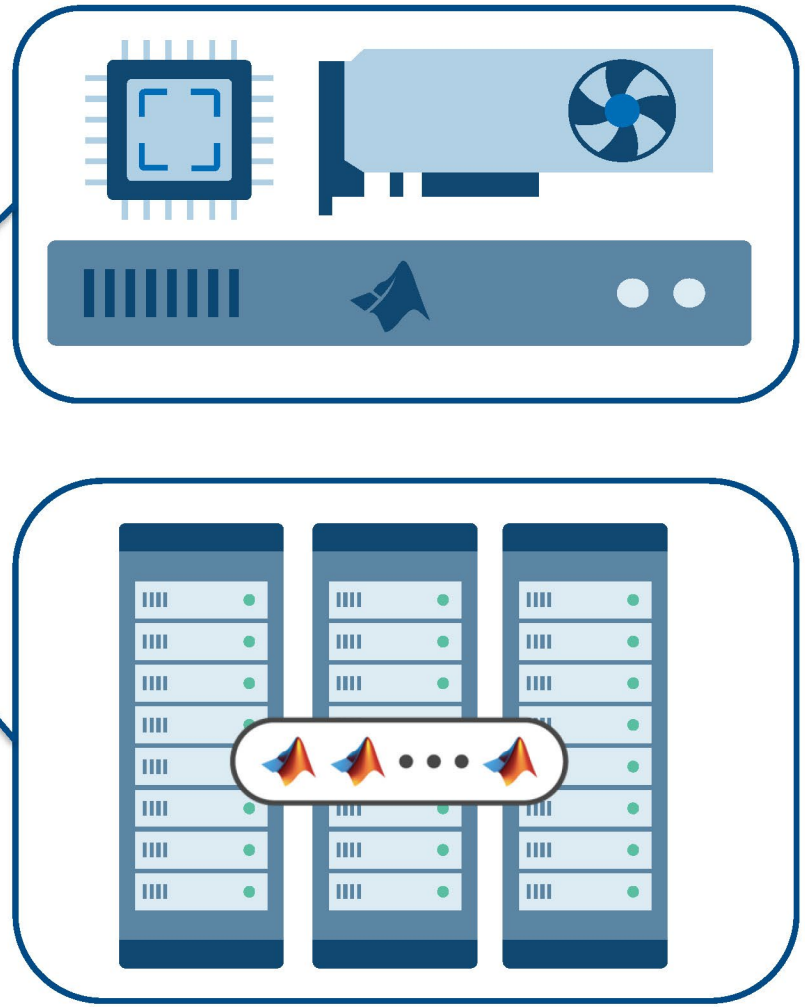
You can mix and match options

Open OnDemand provides a familiar MATLAB experience



No matter how users leverage OOD, they can easily scale their MATLAB workflows on a single machine or the entire cluster

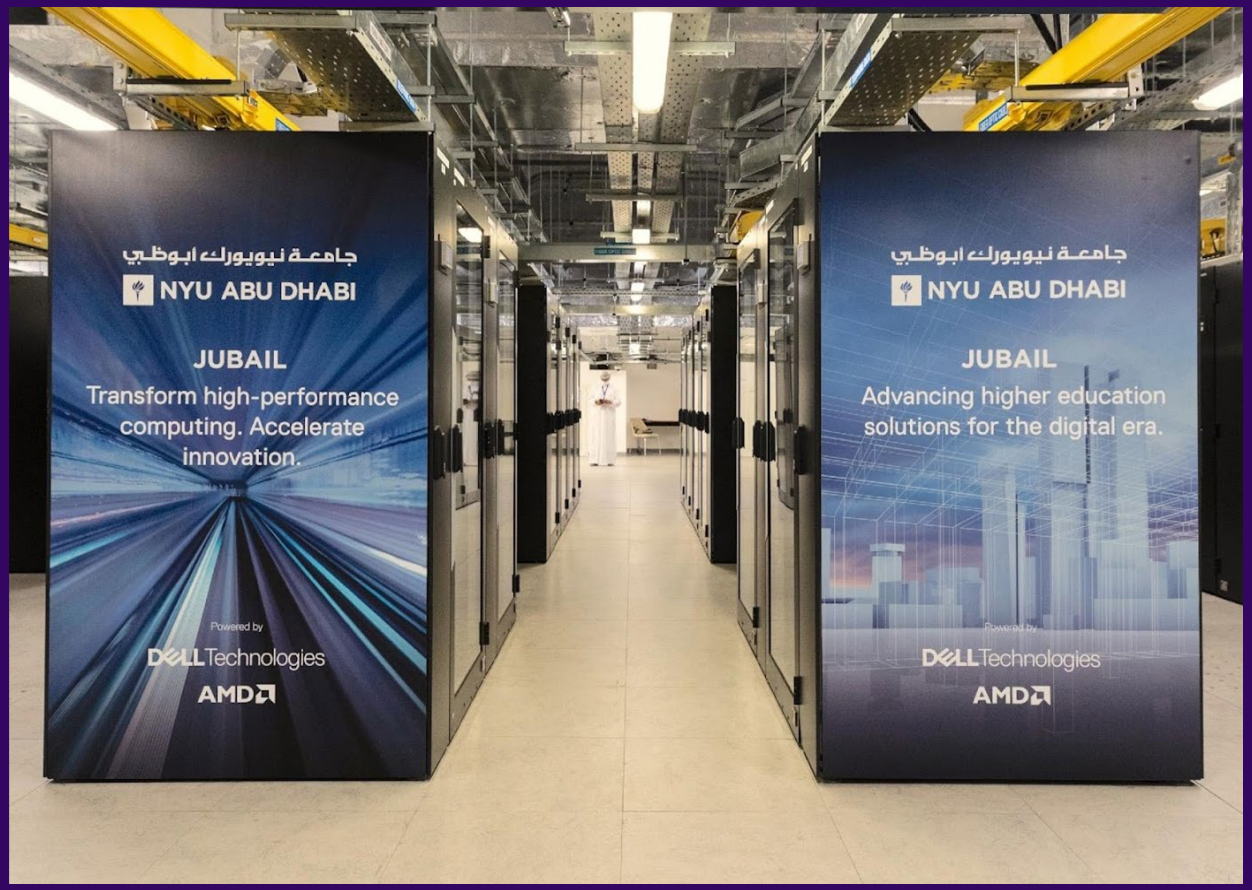




جامعة نيويورك أبوظبي

NYU | ABU DHABI

Open OnDemand at NYU Abu Dhabi: the front door to Jubail



Mennatallah Samier Saleh
HPC Application Specialist
Center for Research Computing, NYU Abu Dhabi
SC26 BoF: Open OnDemand User Group Meeting
November 18, 2026

One browser tab to a 50K-core cluster

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NYU ABU DHABI

2022
OOD live on Jubail

60+
interactive apps, 13 domains

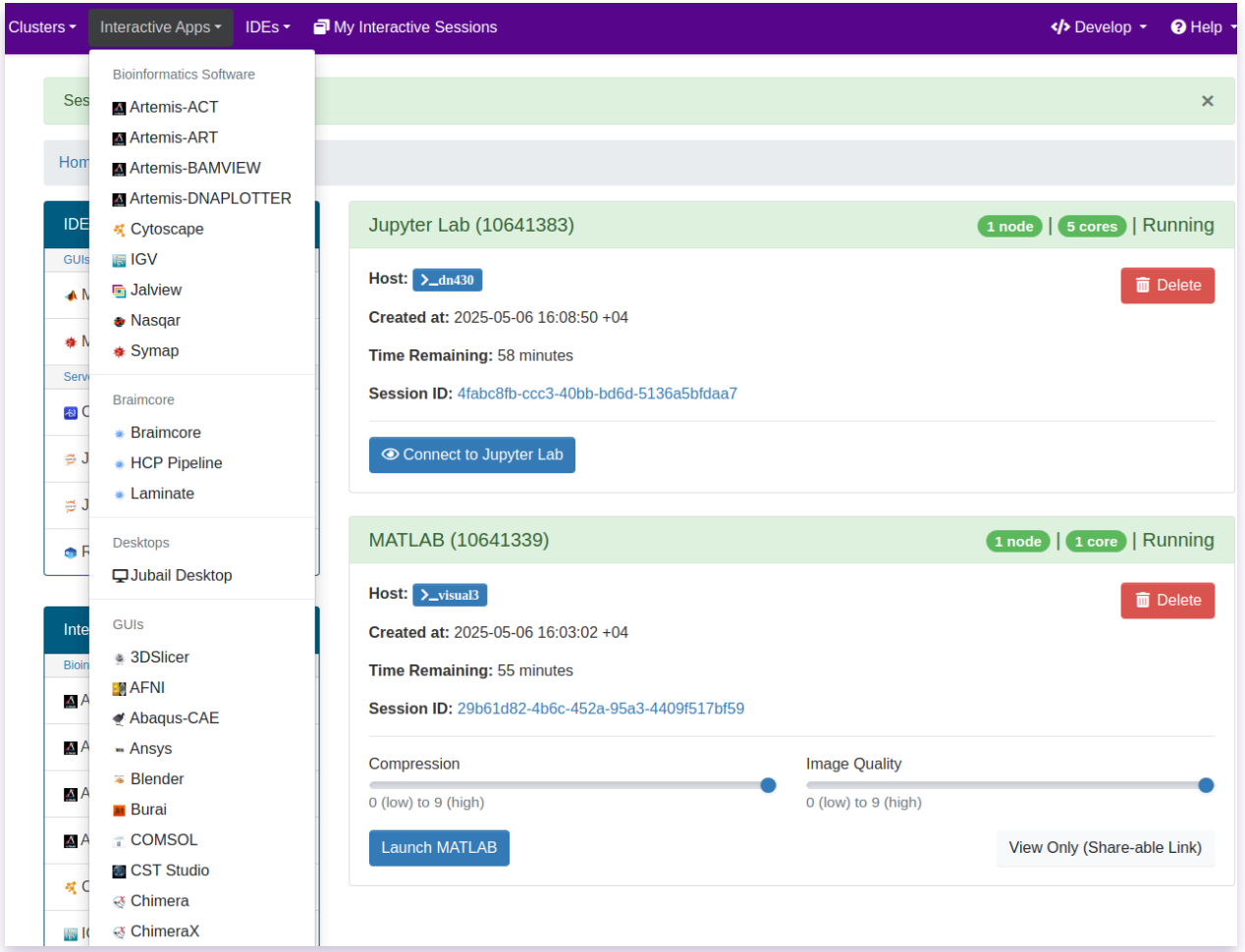
600+
active Jubail users

27%
of users are undergrads

78%
average CPU utilization

566
publications supported

Utilization and users: Sep 2025 to Sep 2026



What OOD changed for us

جامعة نيويورك ابوظبي
NYU ABU DHABI

Before: the terminal

- SSH clients and setup, a real hurdle for Windows users
- Training started with Linux commands
- HPC felt reserved for command-line experts

Now: the browser

- NYU login and a browser, on any computer
- Most of our training is now taught in OOD
- More researchers from every field reach HPC

The best proof: our ticket queue. If anything goes wrong with OOD, we know right away from the flood of OOD tickets.

Small changes, real impact

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NYU ABU DHABI

Recovering wasted GPUs

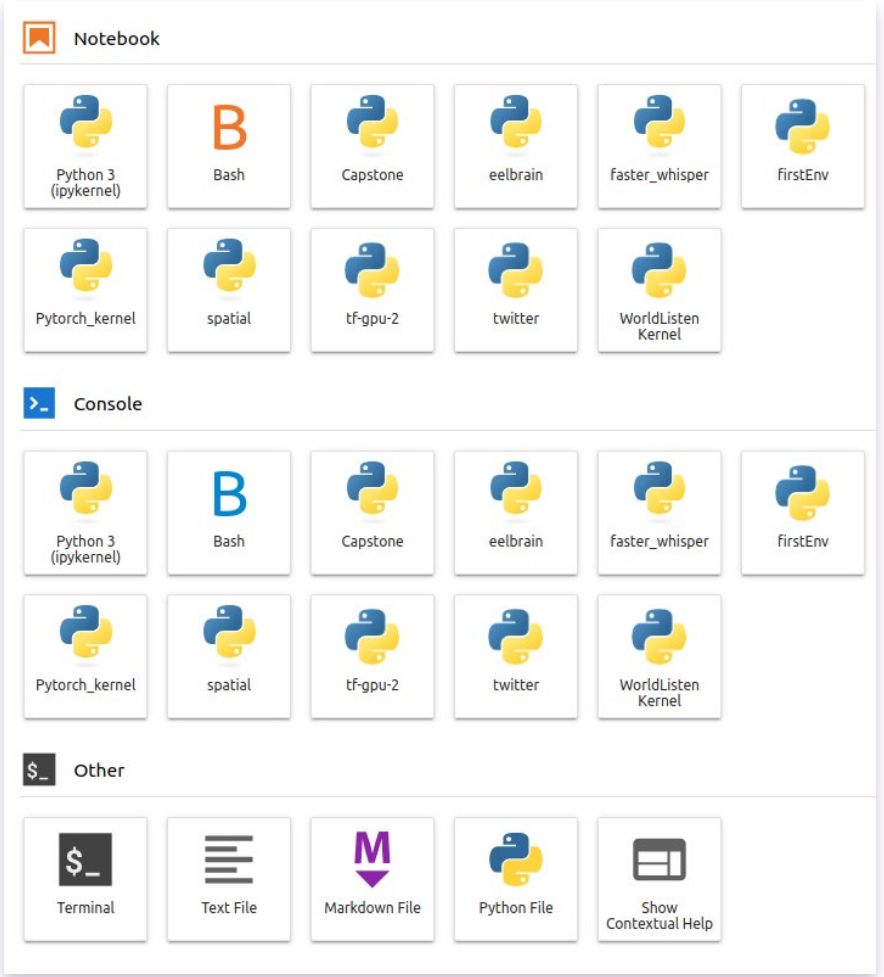
Users asked for GPUs in Jupyter even when notebooks didn't use them. We removed the GPU field and added an optional “extra Slurm arguments” box, and GPU utilization improved.

More desktops per node

We run apps on the lightweight ICEWM window manager instead of Xfce. Each session uses less memory, so more users fit on the same visualization node.

Self-service onboarding

Jupyter is our most used app. We ship ready-made kernels (Python, Bash, PyTorch, and more) plus step-by-step video guides, so new users start without a ticket.



An invitation to the community

A MENA OOD user group

About 12 known OOD sites across the Middle East and North Africa. We'd like to bring them together.

Sharing what we've built

We're active in the OOD Appverse Affinity Group and happy to share our app configurations for 60+ apps there.

Thank you! nyuad.hpc-group@nyu.edu · crc-docs.abudhabi.nyu.edu

Thank You!

Alan Chalker
alanc@openondemand.org

Julie Ma
jma@openondemand.org

Emily Moffat Sadeghi
emoffat@openondemand.org



Come visit us at our booth #4405 for cool giveaways!

openondemand.org/sc26

Open Floor Discussion

OPEN OnDemand

Head back to menti.com



openondemand.org