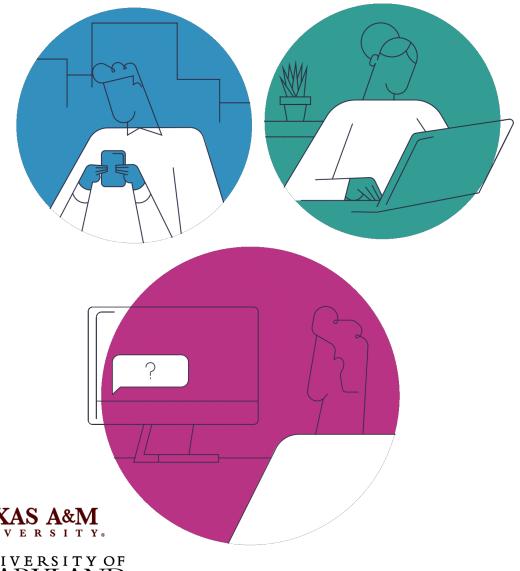


ISC25 Open OnDemand **User Group Meeting**

Karen Tomko, Emily Moffat Sadeghi, Dhruva Chakravorty





















Quick Survey

Instructions

Go to

www.menti.com

Enter the code

4587 5920



Or use QR code



Agenda

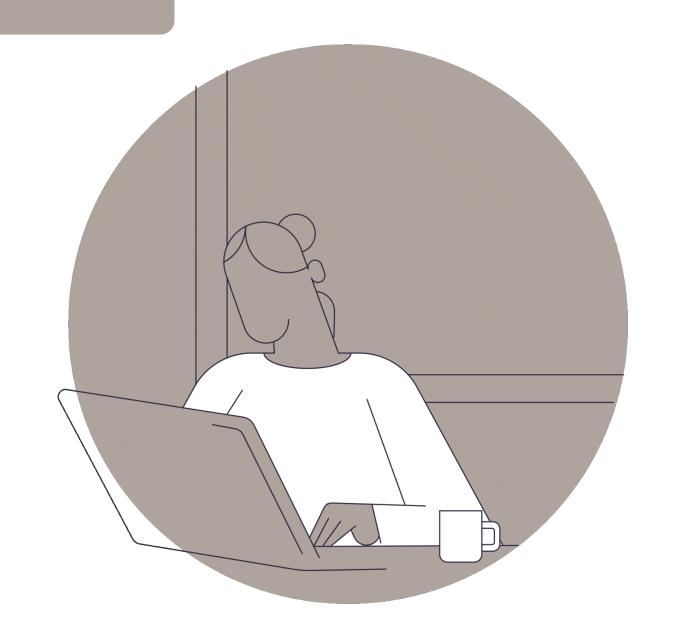
About Open OnDemand

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Development and Support

Open Floor Discussion



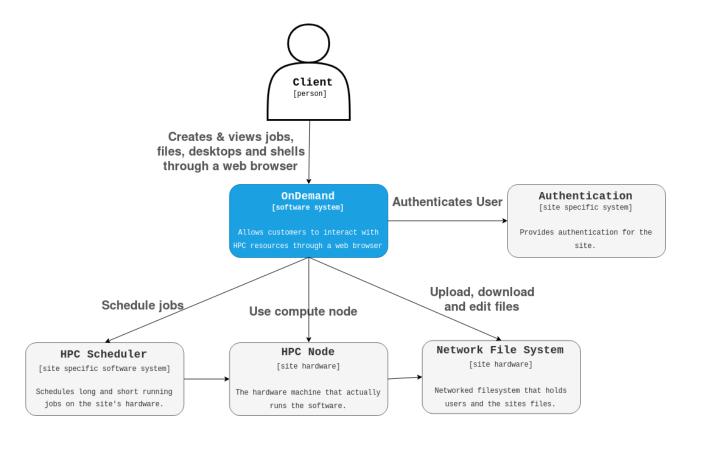


About Open OnDemand

In the late 2000s, when smartphones made information accessible anywhere, we had an epiphany: what if you could access supercomputers from anywhere, too?

Enter Open OnDemand

Created as an open-source platform to easily access supercomputing resources through the browser.c



openondemand.org/about-us



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

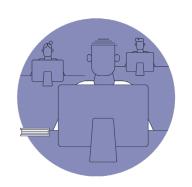
Launch on any device with a browser—even a mobile phone or tablet.

openondemand.org/run

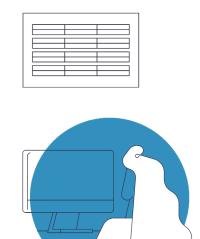


Install Open OnDemand

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.

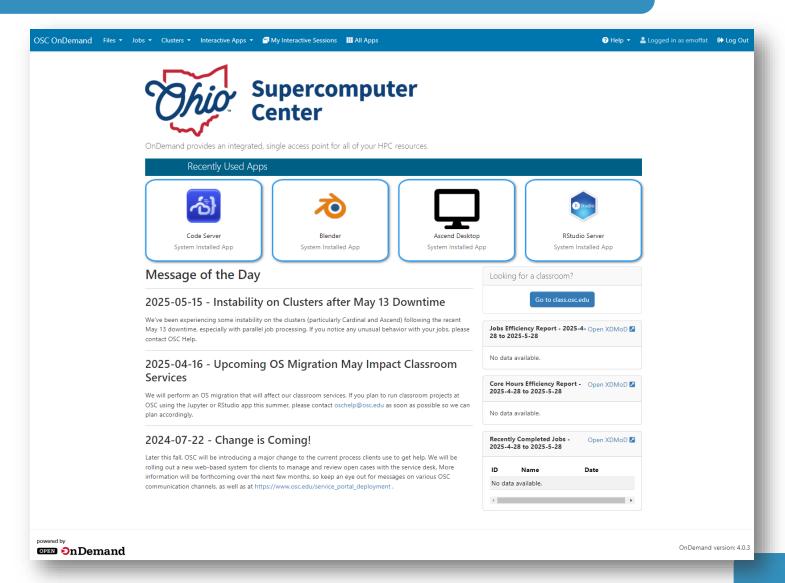
Configurable and flexible

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

openondemand.org/install

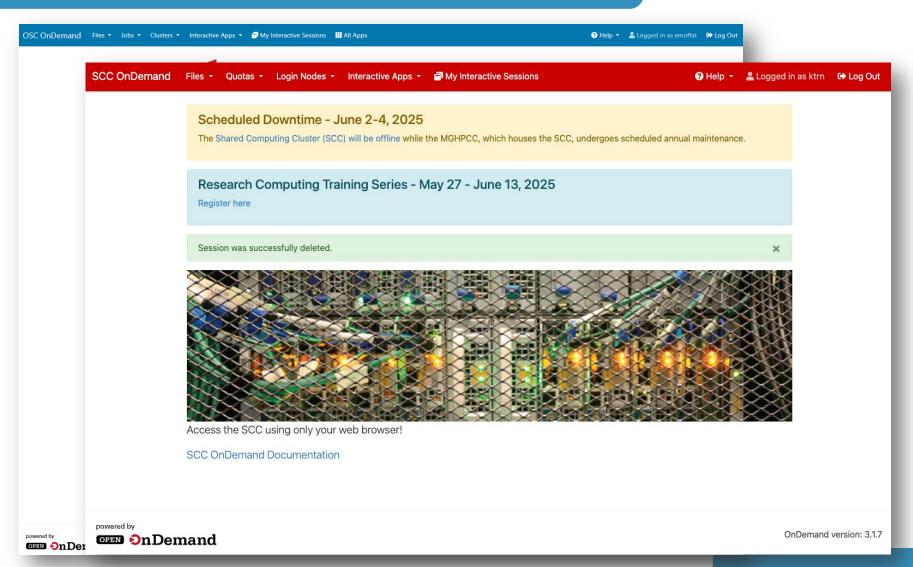


Sample Deployments



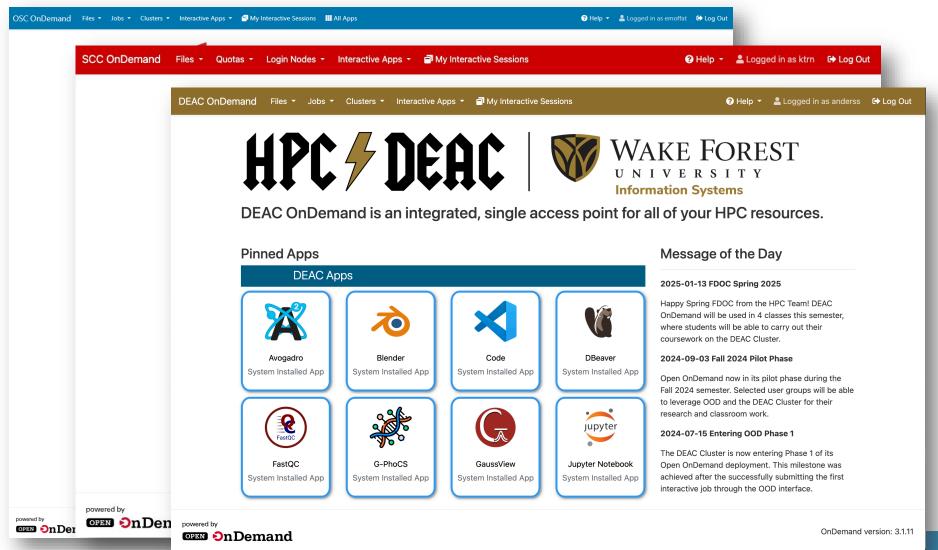


Sample Deployments





Sample Deployments





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









Deployed Worldwide

100+ Countries | 2,100+ Organizations



openondemand.org/locations





Nonprofit / Research centers













International academia













Government











Minority-serving institutions













Private academia







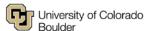






Public academia













Industry









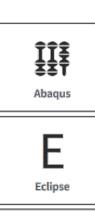




openondemand.org/orgs



Enabled Utilities & Apps





































































PyCharm PyMOL









Schrodinger





















Commercial Cloud





openondemand.org/aws



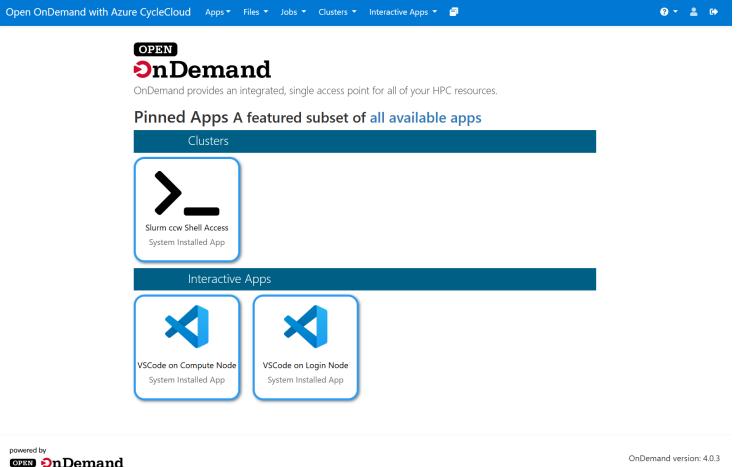
openondemand.org/azure



openondemand.org/gcp

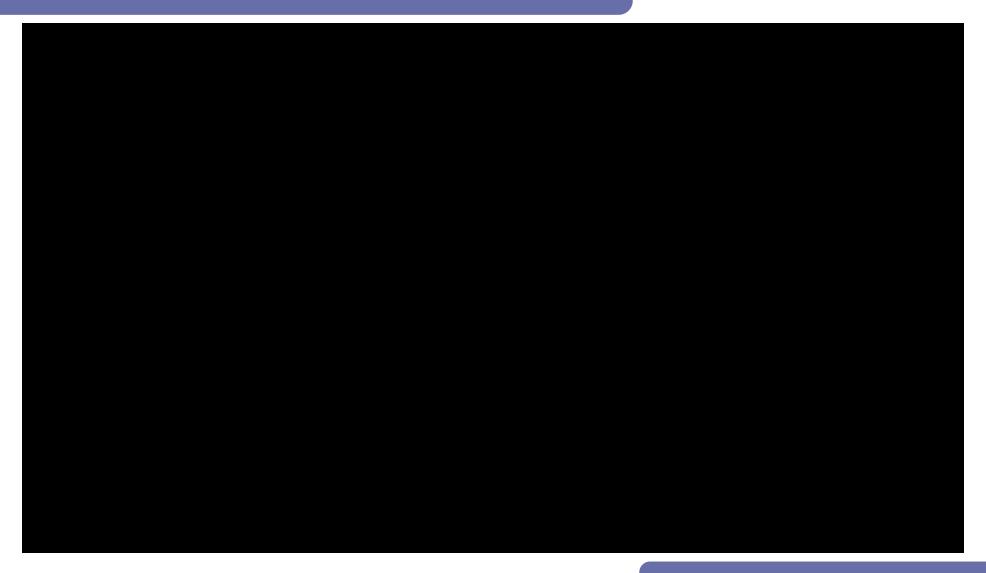


openondemand.org/oci





Any Challenge, Every Solution







Agenda

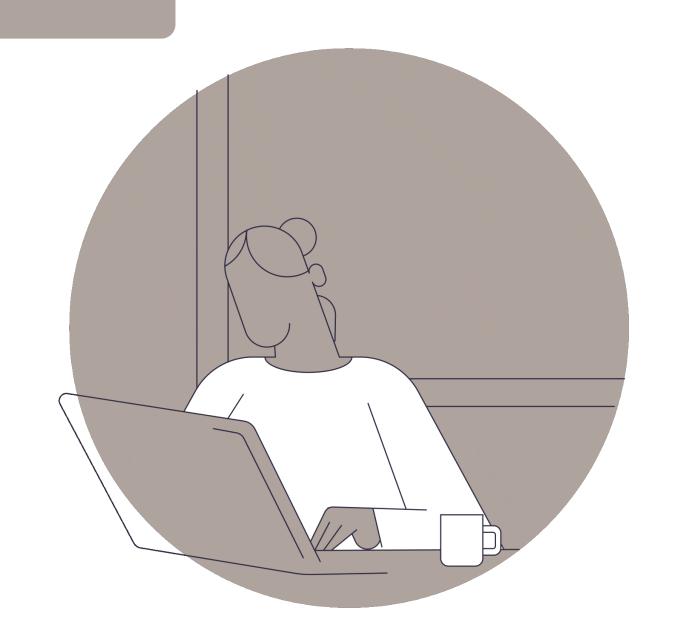
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HPCwire Award



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

openondemand.org



GOOD Conference

The Conference for the Global Open OnDemand (GOOD) Community

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

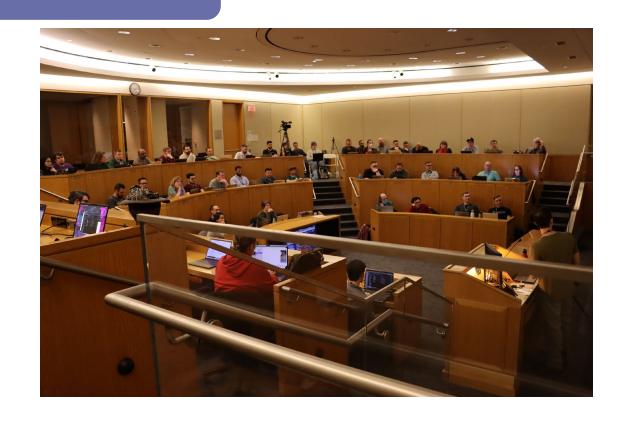
openondemand.org/good



Contributor Jam

Outcomes

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



Comprehensive deep dive

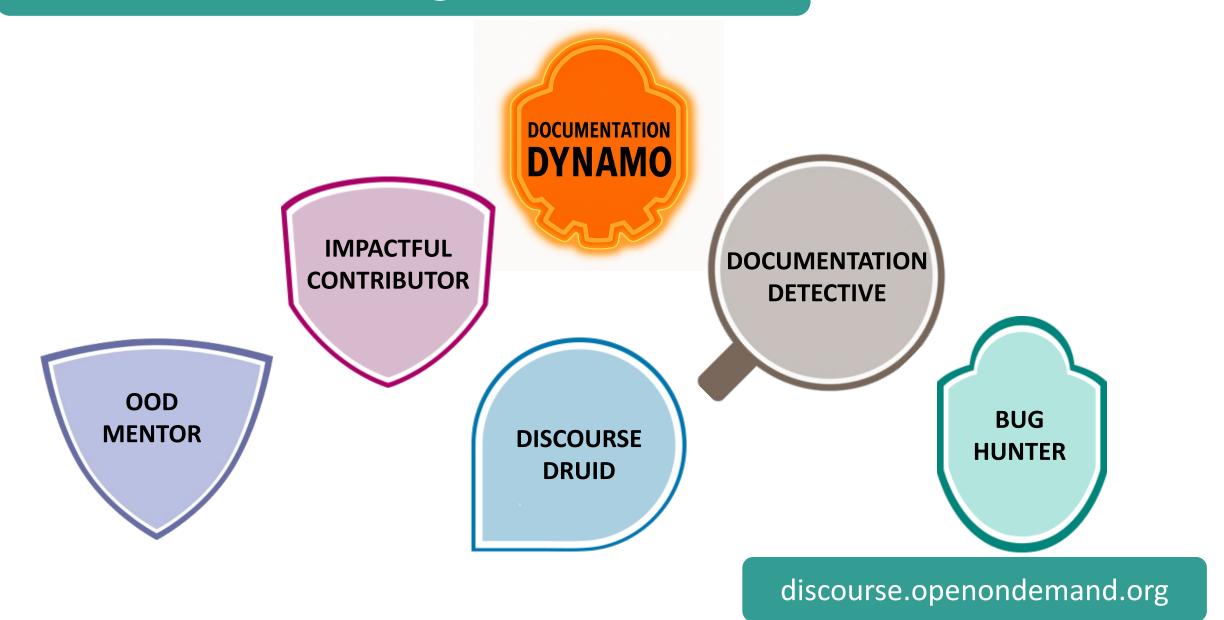
Repos, gems, adapters, schedulers

Walkthrough and resources for pull requests

github.com/OSC/contributor_guide



Jam Recognition

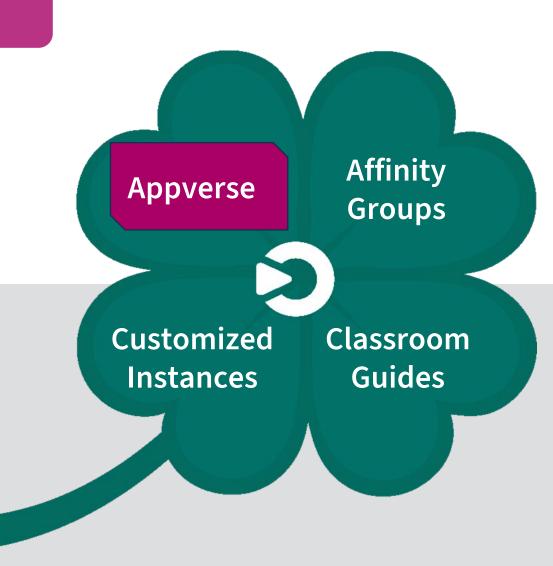


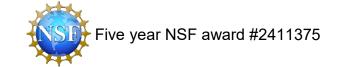


GOODLUCK

Growing Open OnDemand: Leveraging Unified Community Knowledge

Domain solutions for the sciences, engineering & education















The OOD Appverse

Apps for scientific applications by developers, and researchers

KEY FEATURES

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

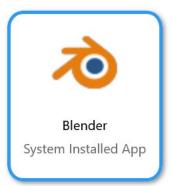








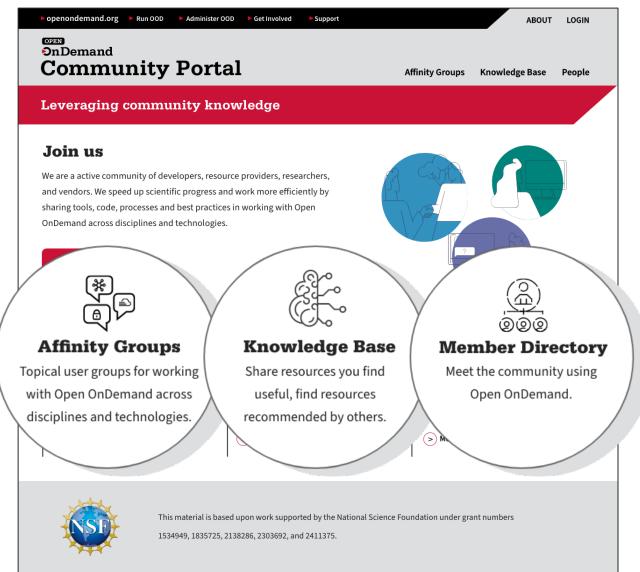








Community Portal



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

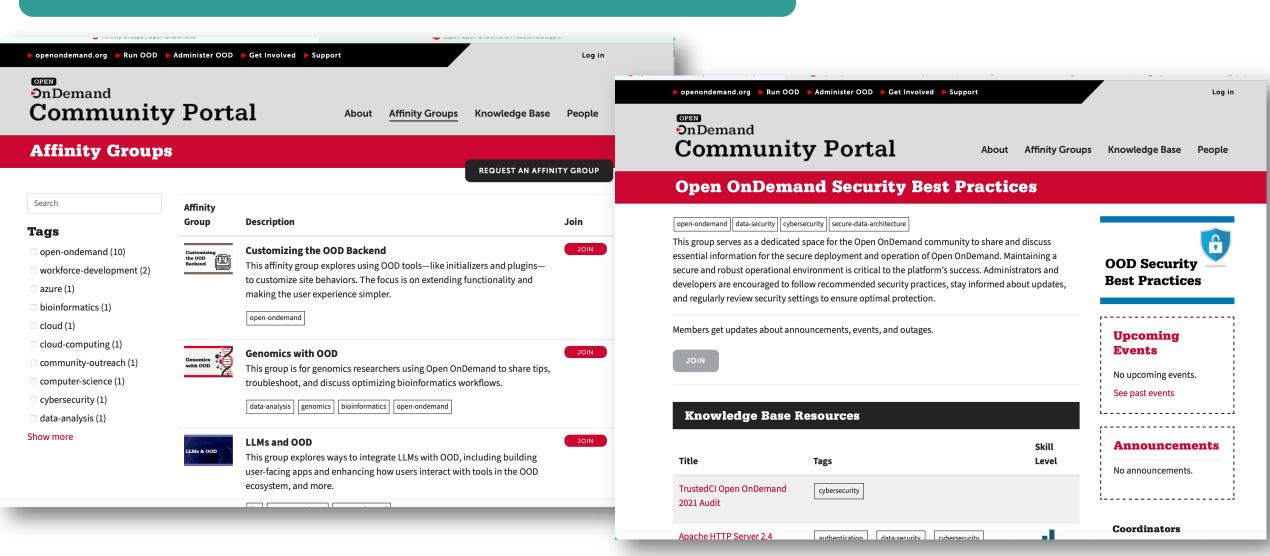
Flexible usage

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

Join at Openondemand.org/portal

Affinity Group Implementation





Join at Openondemand.org/portal



Affinity Groups

Open OnDemand Security
Best Practices

New to Open OnDemand

OOD Project Design

Job Stats

Multilingual Community

OOD User Training

Instrumentation/monitoring

Structural Biology Applications

OOD on Azure

Containers

LLMs and OOD

Genomics on OOD

Customizing the OOD Front End

Customizing the OOD Back End

Web Apps and Absolute URLS with OOD

Join at Openondemand.org/portal



Agenda

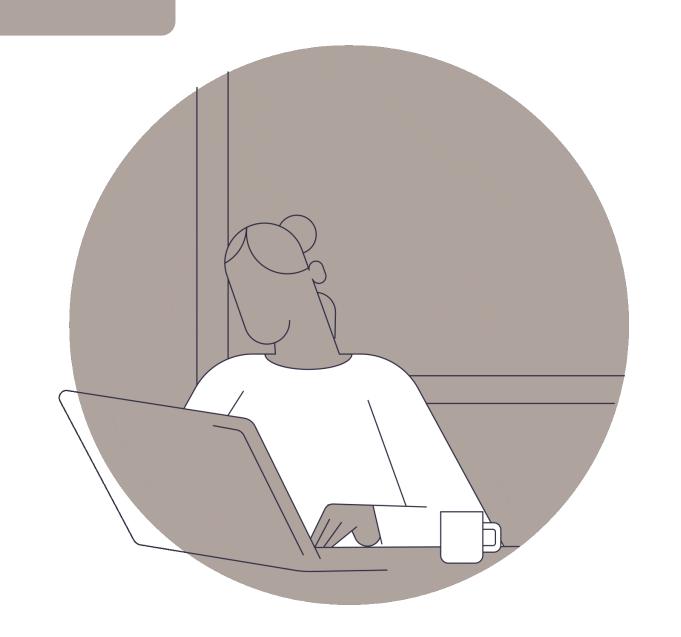
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Community Stories

How is the community leveraging Open OnDemand?







Antoine Schonewille

Jordi Blasco Pallares

Henrik Nortamo

Community Stories



Antoine Schonewille

TrinityX:
The Future
of HPC & AI
Cluster Management





ClusterVision - your experienced HPC/AI partner

20+YRS

Leading SME
specialist for HPC



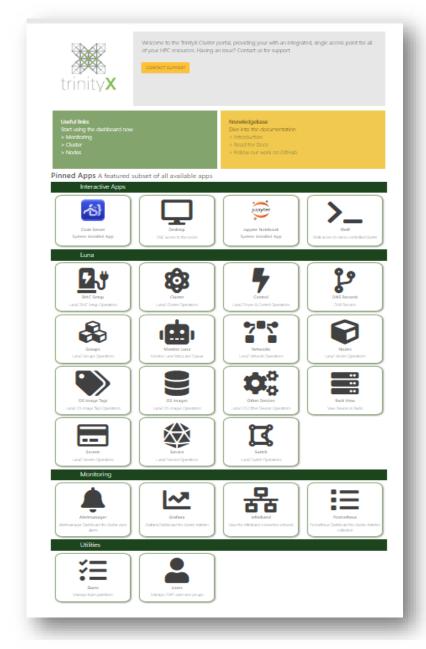


ClusterVision used to be a mother company of Bright Computing. The same people who developed Bright are now developing TrinityX.

800+
Projects successfully completed

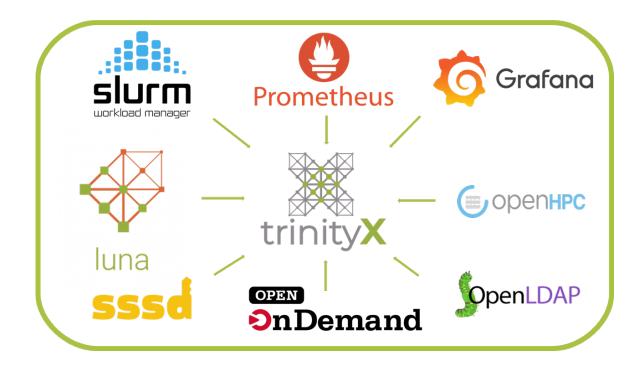
20+
Top500 HPC
Installations
historically





Cluster Management With TrinityX

TrinityX is an HPC/AI Cluster Management Environment consisting of a fine-tuned and integrated collection of well known Open-Source HPC & AI tools, complemented by in-house developed management software and applications.









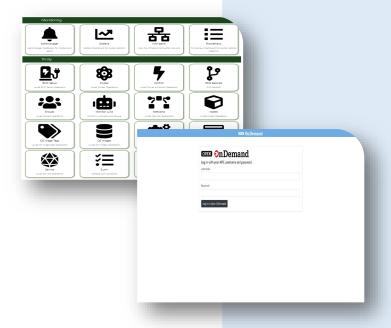






open on Demand

Access your HPC/AI cluster through a web browser and compute from anywhere, on any device



TrinityX is fully integrated with Open OnDemand

Powerful Synergy which results in a Better Experience for Every User

Why Open OnDemand?

- ✓ **Lowers the threshold for HPC/AI admins,** making clusters accessible to non-expert users.
- ✓ Configure and monitor the cluster graphically
- ✓ Users can use HPC resources without complex SSH logins.
- ✓ Run GUI-based applications like Jupyter, RStudio, MATLAB, Ansys, ParaView, and remote desktops directly from the portal.
- ✓ Provides a single access point for users, reducing the need for multiple login mechanisms.
- ✓ Manage users & all nodes via a Web browser
- ✓ **Integrates with existing authentication** (LDAP, Active Directory, SSO) for secure user access.

TrinityX Enterprise Support Levels

Gain a peace of mind and a more efficient cluster —so you can focus on what truly matters.

Pro-active SupportRemote System Administration (RSA)

We take care of everything—so you can focus on what matters most.

Who is this for

- ✓ Organisations that want a hands-off approach to HPC cluster management.
- ✓ Teams that need experts to handle system administration, updates, monitoring, and issue resolution.

Key Benefits

- ✓ Maximised uptime with proactive intervention
- ✓ Reduced operational burden
- ✓ Peace of mind with expert-led maintenance

Enhanced Support

You manage your system—we ensure it runs optimally.

Who is this for

- ✓ Organisations with in-house IT/admins but need expert backup and guidance.
- ✓ Teams looking for guaranteed support beyond basic break/fix.

Key Benefits

- ✓ Faster issue resolution with priority access to experts
- ✓ Improved performance through expert tuning
- ✓ Reduced risk with professional guidance

Self - Managed Support

You run your system—we're here when you need us.

Who is this for

- ✓ Organisations with internal IT expertise to handle day-to-day operations.
- ✓ Those who want basic support options without ongoing engagement.

Key Benefits

- ✓ Free support for teams with in-house expertise
- ✓ Access to support when needed via GitHub
- ✓ Freedom to manage the cluster independently

Let's talk more at Booth #G19

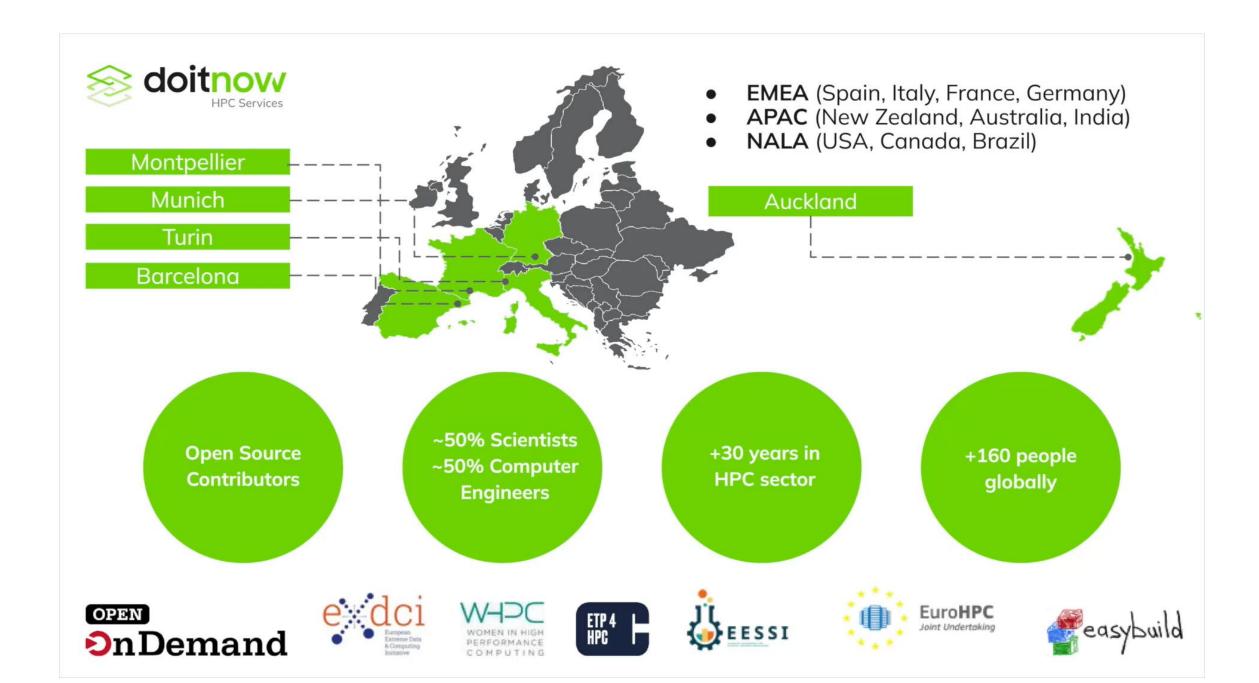




Community Stories



Jordi Blasco Pallares



Community Stories



Henrik Nortamo

Open OnDemand for the EuroHPC Federation Platform (EFP)

- Using OOD to provide interactive computing for federated HPC and AI systems in Europe
 - EuroHPC funded systems, e.g. LUMI, JUPITER, MN5, LEONARDO ... -> +20 systems
 - Quantum resources also to be federated, role of interactive interface to be specified
- Working on moving OOD deployment "further" away from a system
 - Basic filesystem abstraction in progress (just over SSH)
 - Exploring how well remote file browsing can be made to work
 - Central deployment, so not one OOD per system. Interesting scalability limits to be explored, HA or similar might be a good solution.
 - Experimenting with kubernetes deployment (might not make the cut)
- Focus first on the "standard" apps and functionality
- Plan is to upstream any generic functionality which makes sense
 - Auxiliary functionality might not make sense in the upstream but can be open-sourced if useful. E.g. SSH certificate handling or integrations with allocation management systems.







Agenda

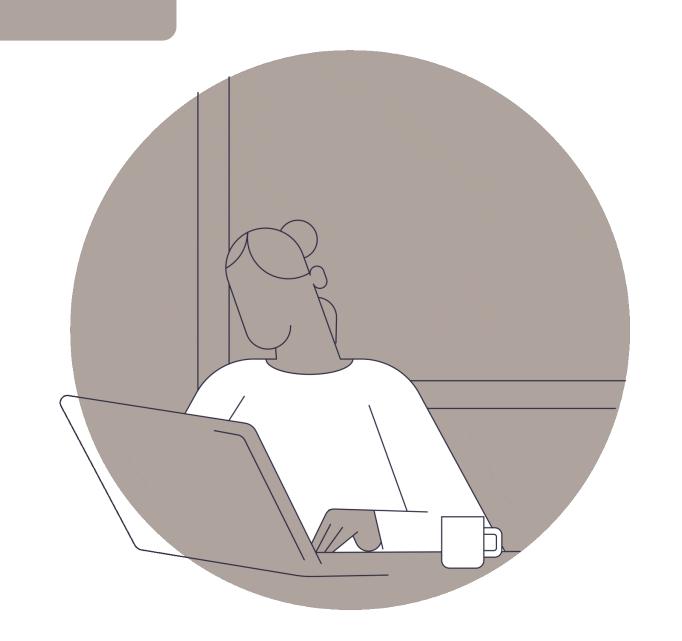
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Community Events





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 in 2H2025



Established Support Mechanisms





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.

<u>openondemand.org/docs</u>



Constant Contact Newsletter

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

openondemand.org/newsletter



Customizable Support Subscription

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

Benefits of Support Subscriptions:

Priority GitHub
issue support
Priority triaging of
GitHub issues
opened in the
Open OnDemand
repositories.



Exclusive access to a priority support channel on Discourse

Priority access to a support channel, monitored by Open OnDemand technical staff during standard business hours.

Consulting Services available

Access to purchase consulting hours with the Open OnDemand developers.



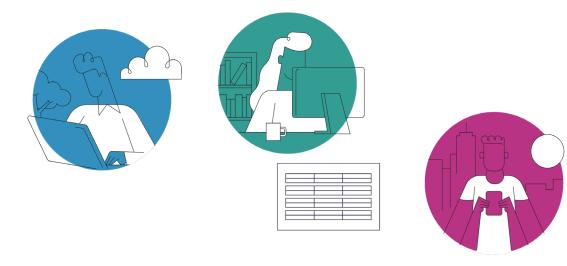


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Support Partners

- 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



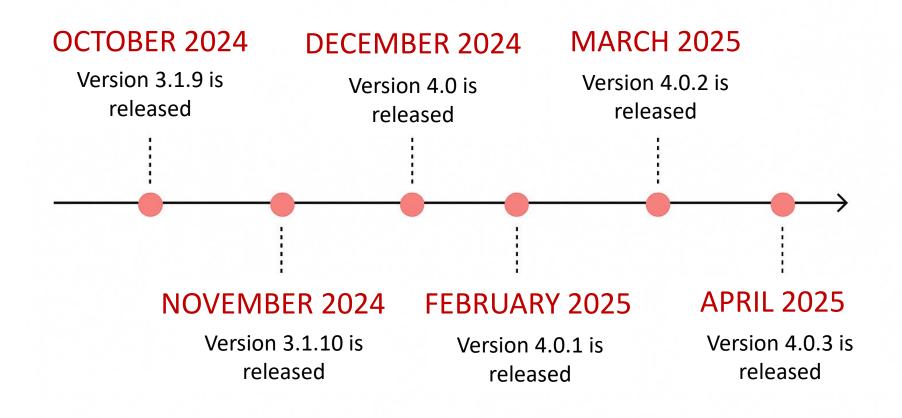
Benefits of Support Partners:

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

openondemand.org/subscribe



Development Timeline



openondemand.org/docs



Community Contributions















Genentech





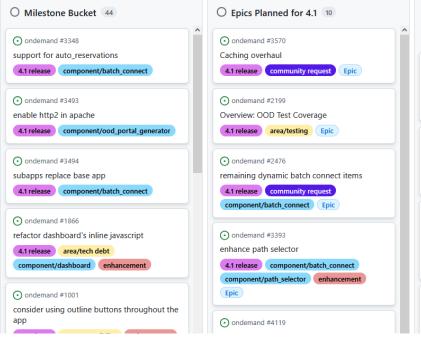




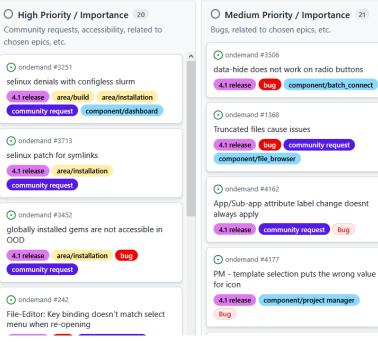


4.1 View – Dev Rel Edition

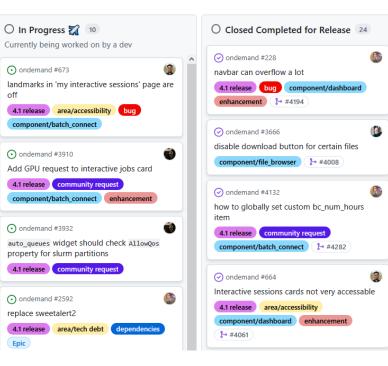
Milestone Bucket



High Priority



In Progress



Epics Planned for 4.1

Medium Priority

Closed Completed for Release

Getting Involved

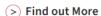
How to get involved

Want to join the collaborative effort behind Open OnDemand? Here's how you can help.



Contribute to documentation

Draft documentation for a new feature, app, or even fixing a typo.





Join in on Discourse

Be part of the discussions, pitch a new app or feature, or report a bug.





Contribute code

Write code for a new app or feature, and share it with our community.

> Find our More



Engage with us

Collaborate with us to make your corporate or higher ed project a reality



> LinkedIn

Fund the project

Spread the word

Mention us on LinkedIn @open-

ondemand—or simply tell your friends!

Provide monetary support to our development team or one of our partners. Every gift helps!

> Contact us

Join our Working Groups

Technical Committee

Oversees software decisions, collaborates with Dev Rel PM to provide guidance on pull requests, bug fixes, releases and updates. Nominates a Steering Council representative.

User Documentation

Writes and maintains documentation to ensure the system admin community can install and the user community can run Open OnDemand quickly and easily.

Contributor Guide

Maintains the Contributor Guide to provide clear, well-defined guidelines for contributing code and documentation to the project.

Community Engagement

Builds the Open OnDemand community through affinity groups, community calls, events, support and partnerships. Nominates a Steering Council representative.

openondemand.org/get-involved



Thank You!

Please take a moment to sign up for our mailing list for future updates!

Karen Tomko
Dhruva Chakravorty
Emily Moffat Sadeghi
emoffat@openondemand.org





Open Floor Discussion

Instructions

Go to

www.menti.com

Enter the code

4587 5920



Or use QR code