OPEN OnDemand

Connecting Computing Power with Powerful Minds

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openondemand.org/ok24

Agenda

About Open OnDemand

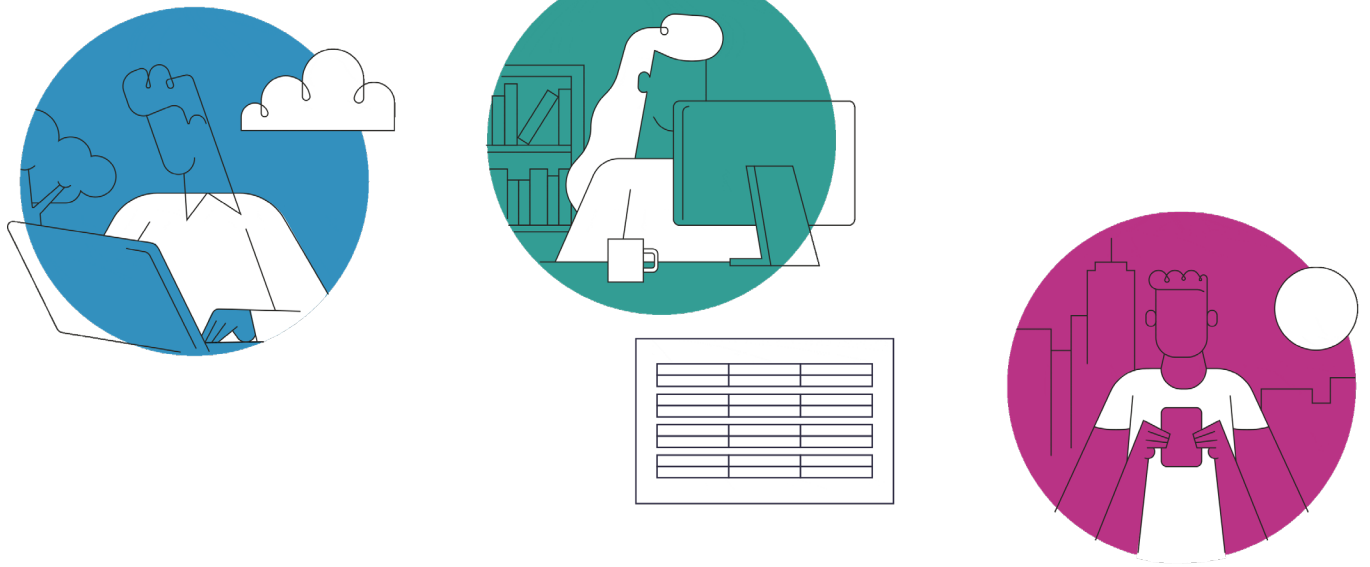
Walkthrough

Success Stories

Engaging with the Project

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.

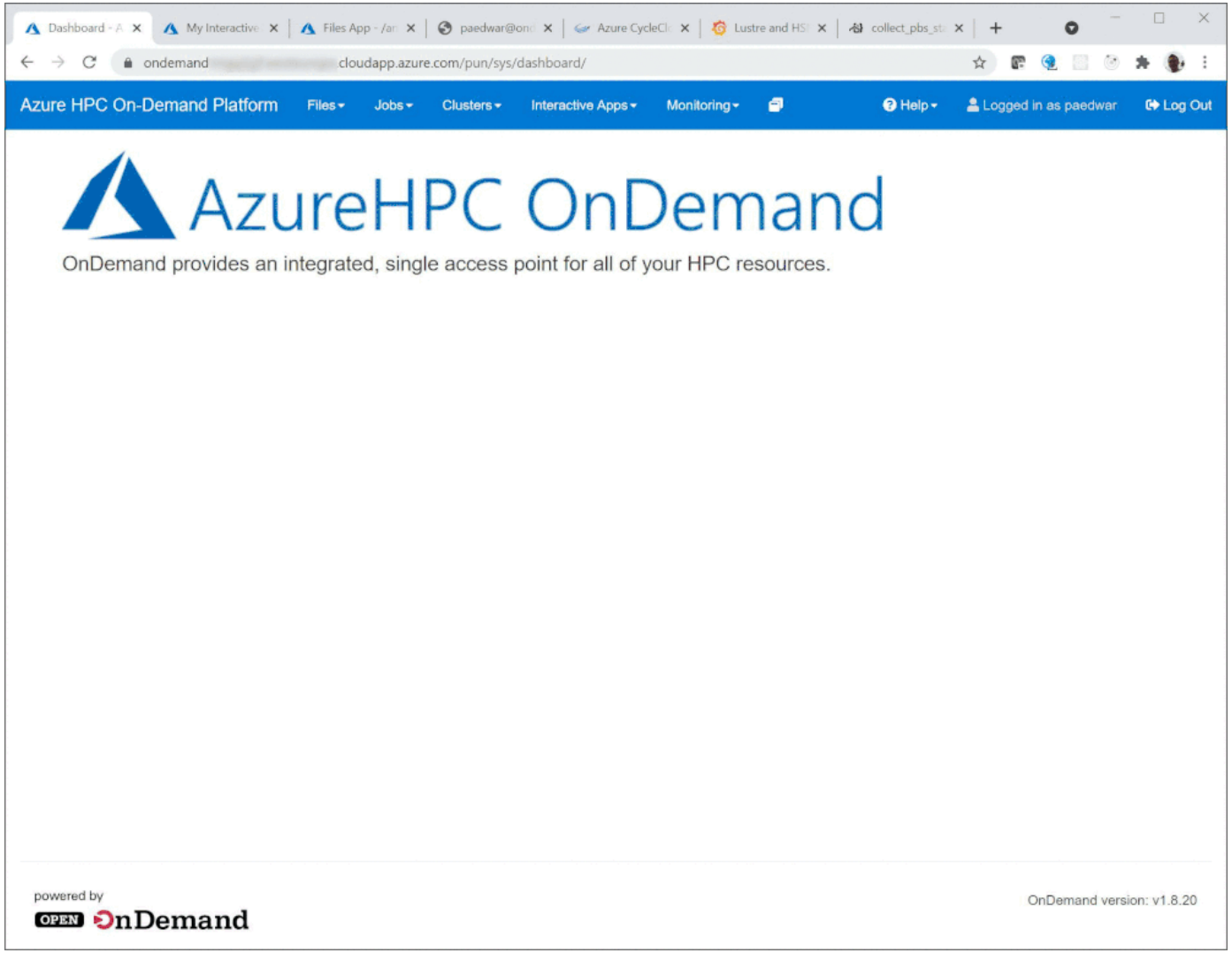
openondemand.org/run

Any Device, Anywhere

OPEN OnDemand

openondemand.org/anydevice

Commercial Cloud



aws

openondemand.org/aws

openondemand.org/azure

Google Cloud

openondemand.org/gcp

NSF ACCESS

OPEN OnDemand

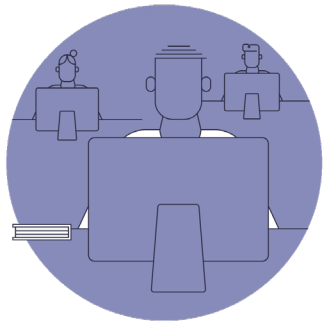
Georgia Tech	Johns Hopkins University	Texas A&M	Purdue University	PSC Pittsburgh Supercomputing Center
Hive	Rockfish	ACES & FASTER	Anvil	Bridges-2 & Neocortex
University of Kentucky	NCSA	Stony Brook University	SDSC San Diego Supercomputer Center	
KyRIC	Delta	Ookami	Expanse	

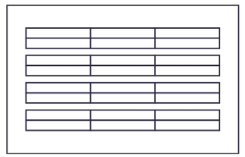
openondemand.org/access

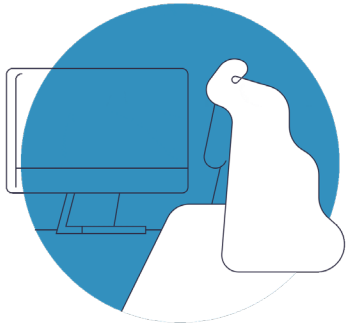
Install Open OnDemand

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

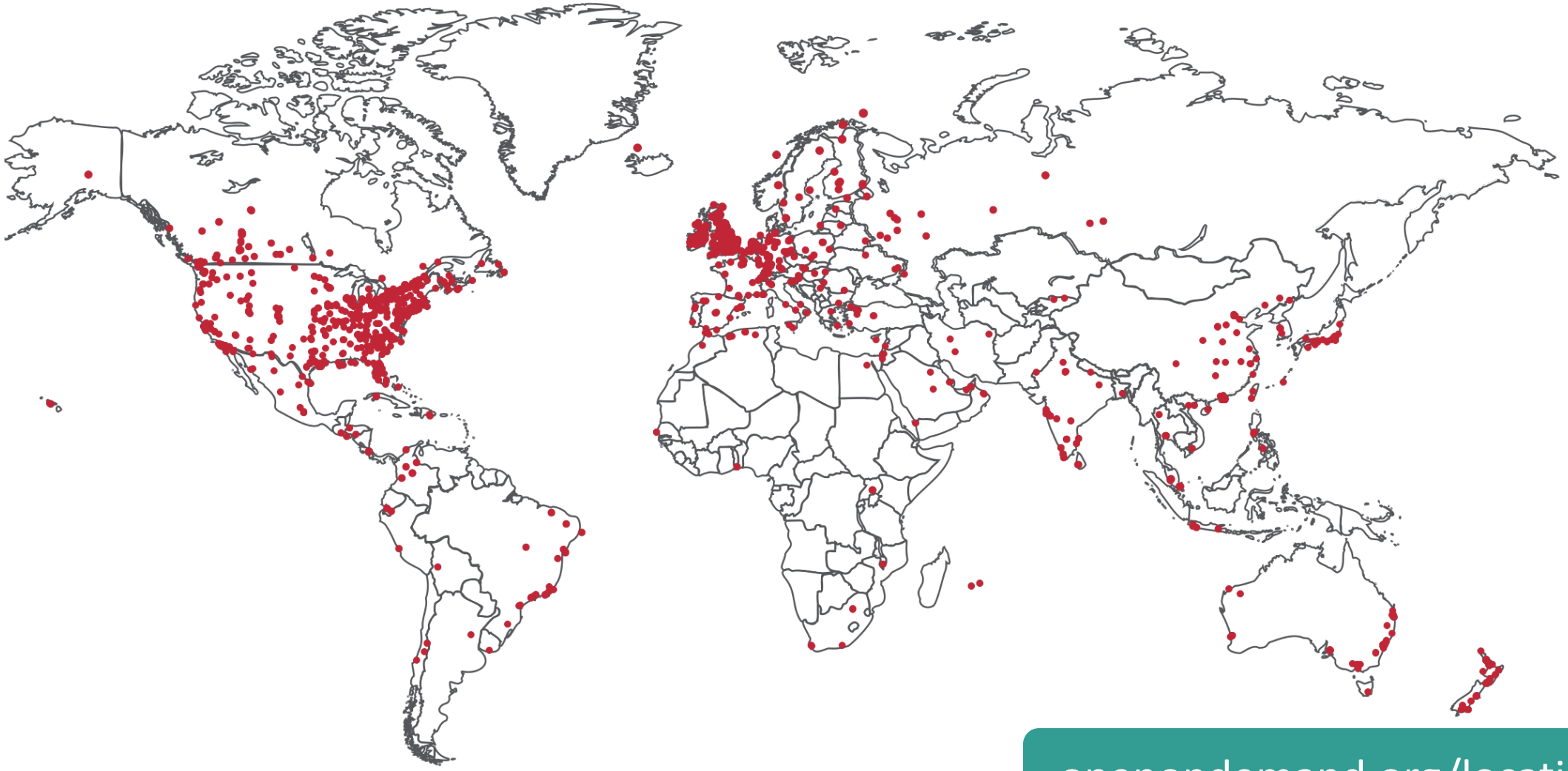
Create and deploy your own applications to meet your users' unique needs.

openondemand.org/install

Deployed Worldwide

OPEN OnDemand

95 Countries | 1,646 Organizations



openondemand.org/locations

Example Deployments

OPEN OnDemand

Nonprofit / Research centers

Cincinnati Children's — changing the outcome together
RIKEN Center for Computational Science (R-CCS)
PSC — Pittsburgh Supercomputing Center
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

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

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Enabled Utilities & Apps

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Abaqus	AMDuProf	ANSYS	Arm	BEAST 2	MRIcron	NetLogo	Nsight Eclipse	Octave	OVITO
Blender	CHIMERA	COMSOL	Coot	DeepLabCut	ParaView	PseudoFuN	PSPP	PyCharm	PyMOL
Eclipse	Firefox	Galaxy	GaussView	Grace	QGIS	RELION	RStudio	Schrodinger	Shiny
GSEA	IDL	jupyter	LS-DYNA	Lumerical	Siril	STAR-CCM+	Stata	TensorBoard	VisIt
Maestro	Mathematica	MATLAB	Maya	Meshroom	Visual Studio Code	VMD	WebMO	XDMoD	

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Success Stories

Engaging with the Project

Log In

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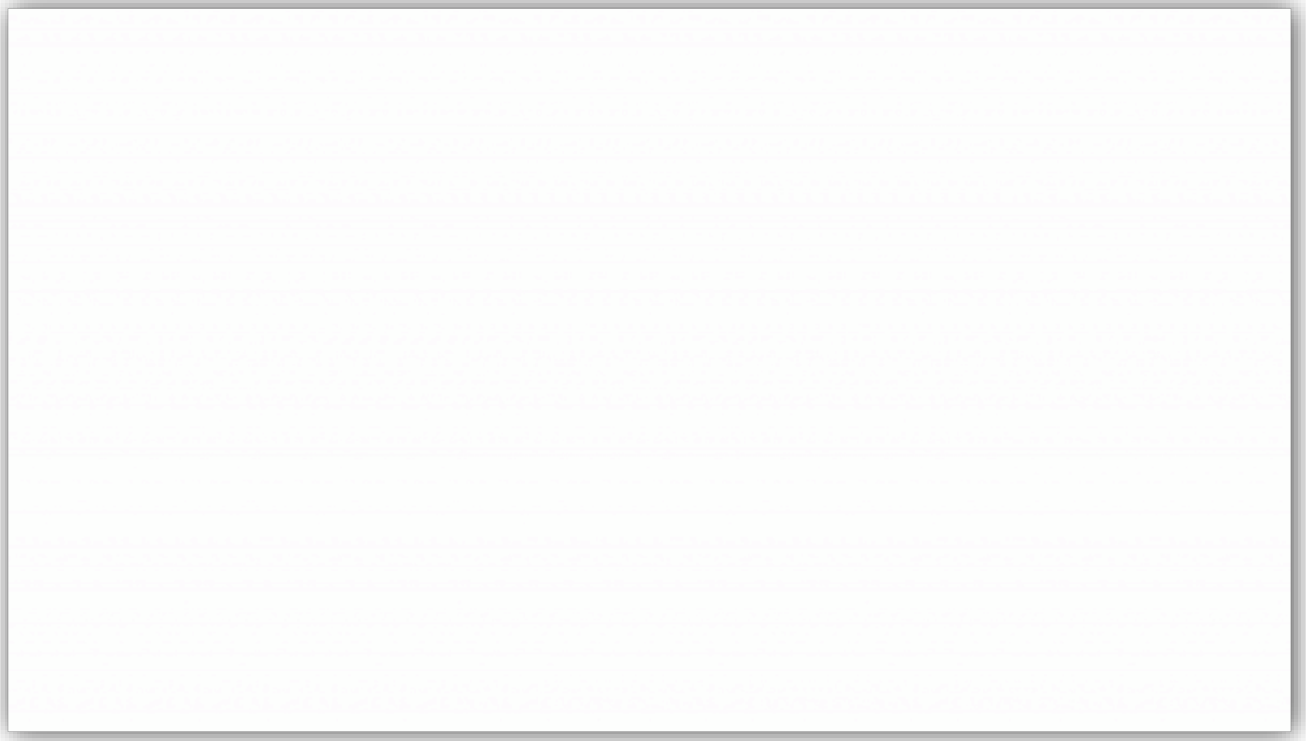
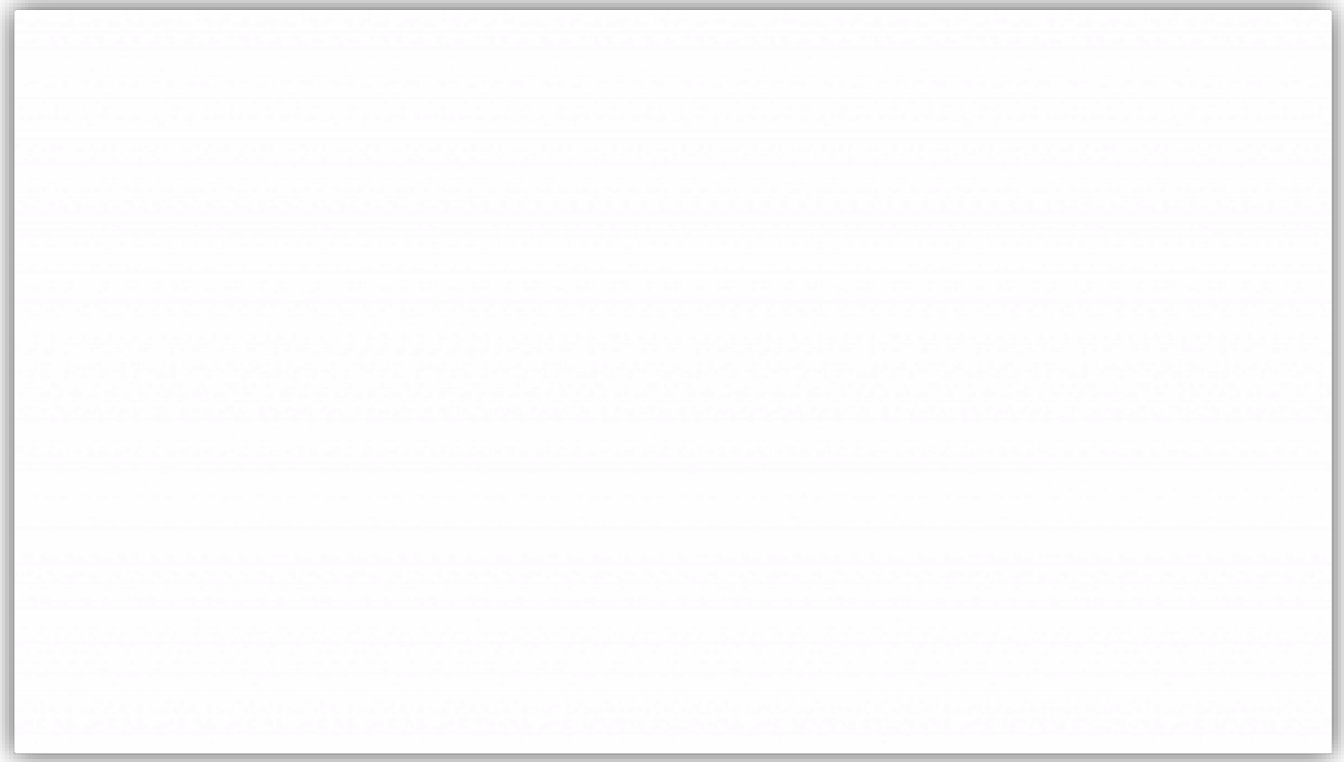
Profiles



openondemand.org/tutorial

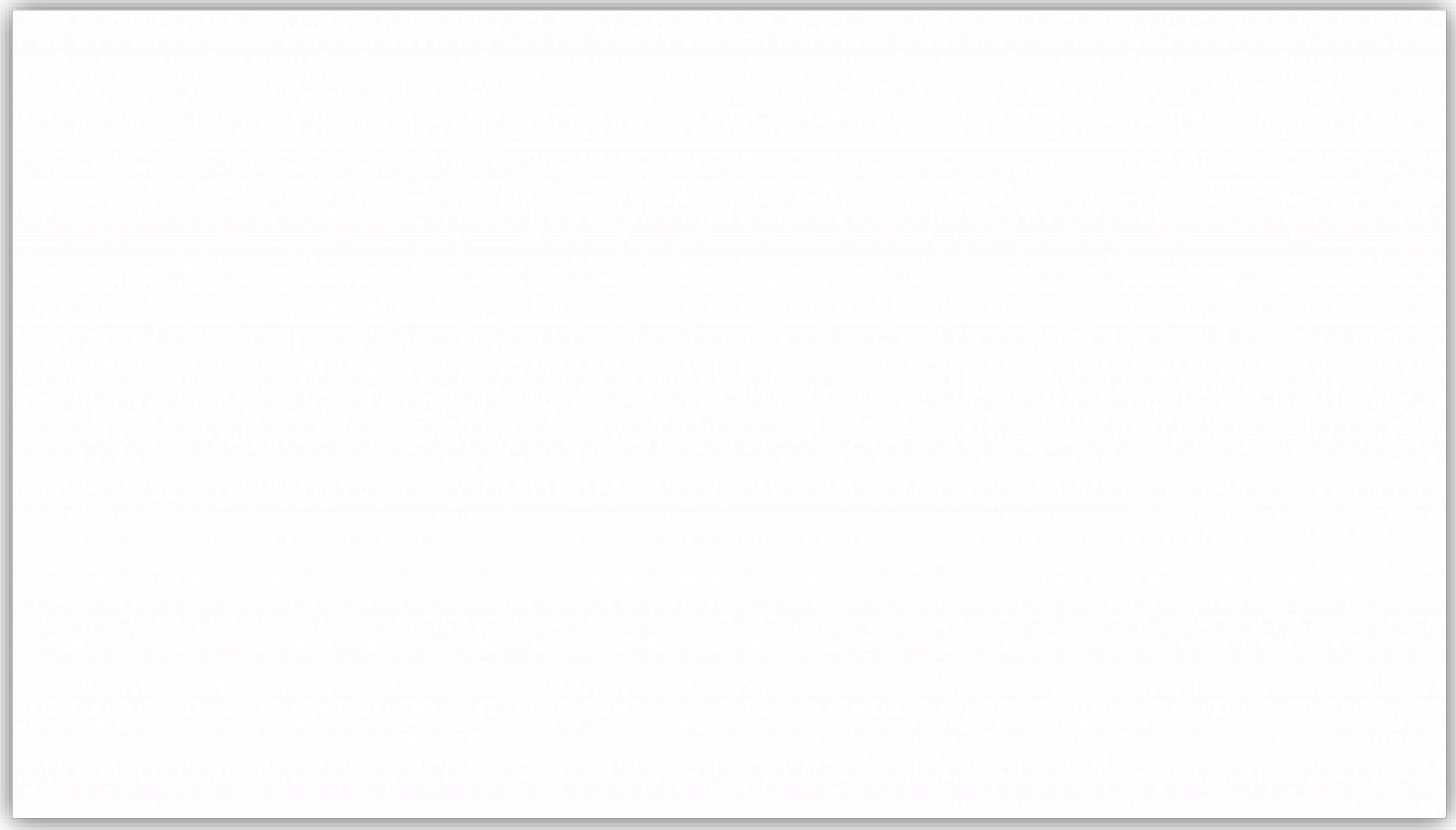
System Status



File Browser

openondemand.org/tutorial

Globus Integration



Example App: Shell

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Example App: Virtual Desktop

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Example App: Jupyter

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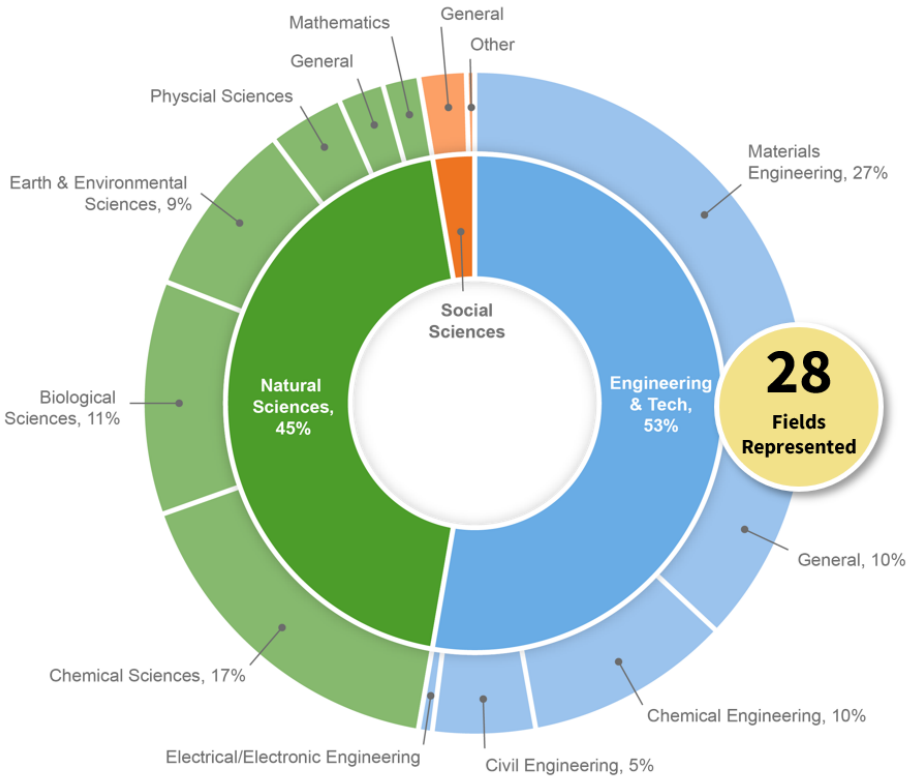
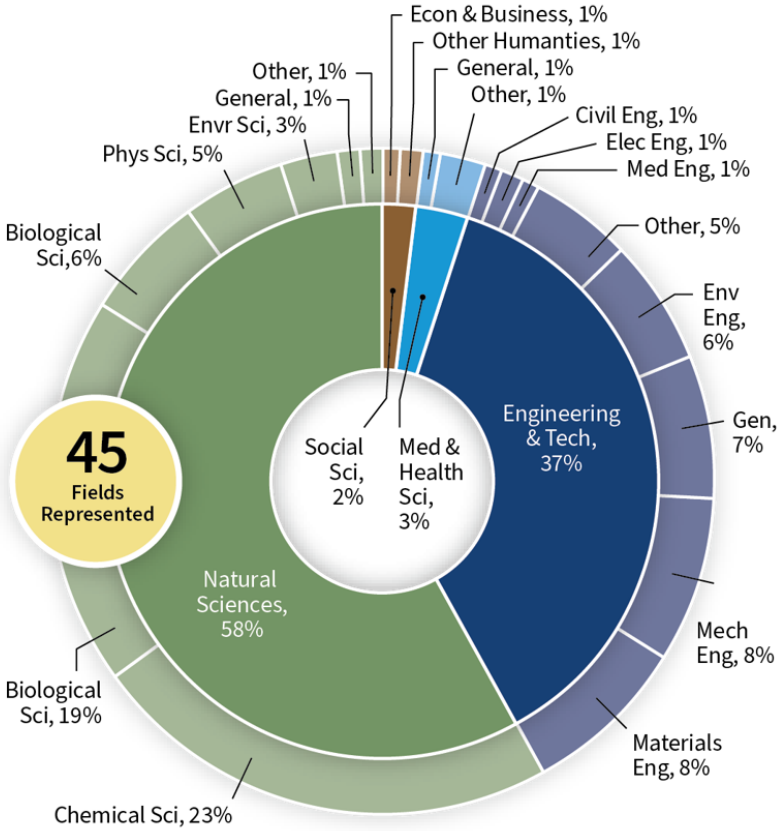
Impact at OSC



2017



2023

openondemand.org/fields

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

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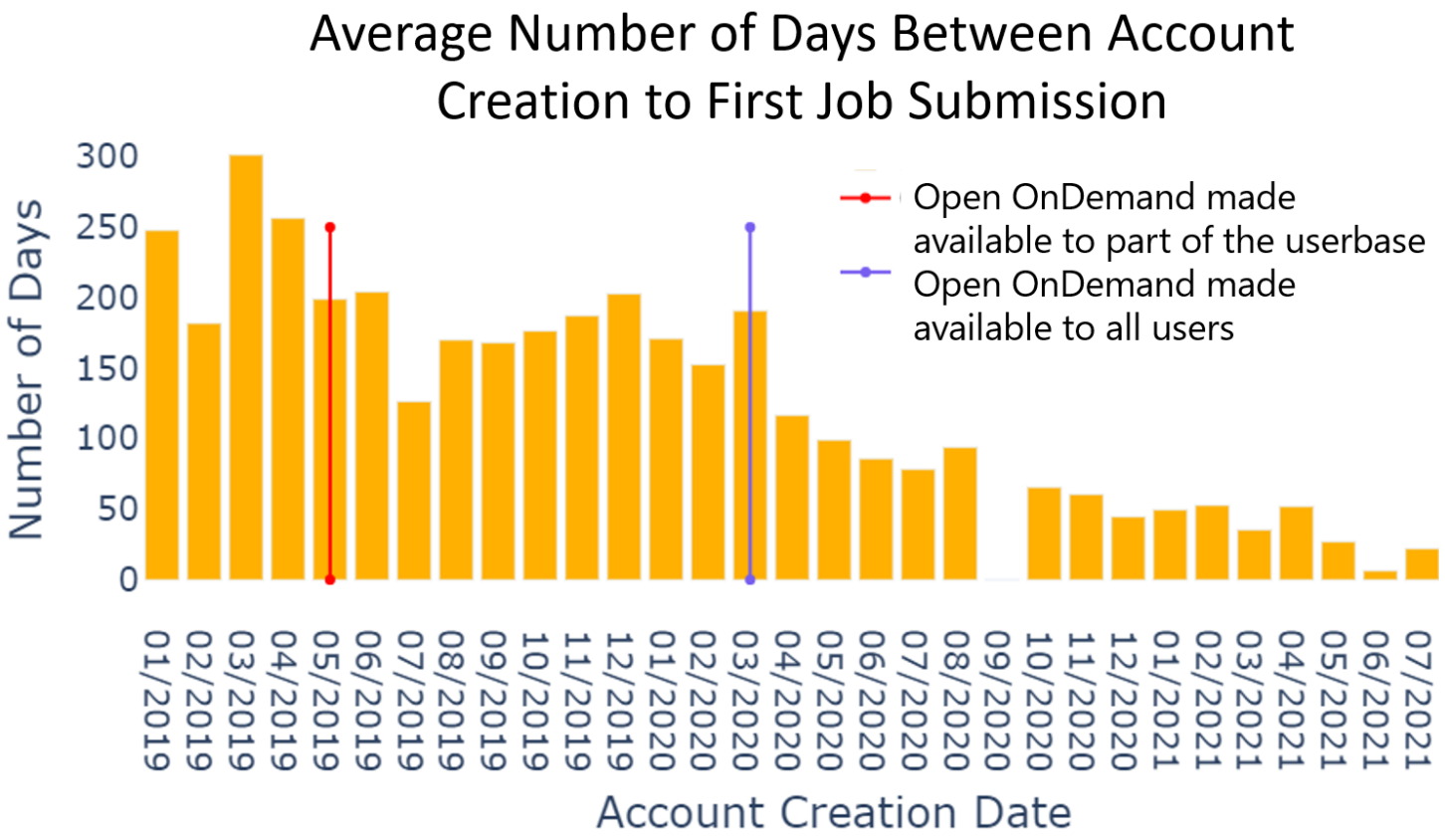
Idaho National Lab



19 times shorter

In days between account creation and first job submission

openondemand.org/idaho

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

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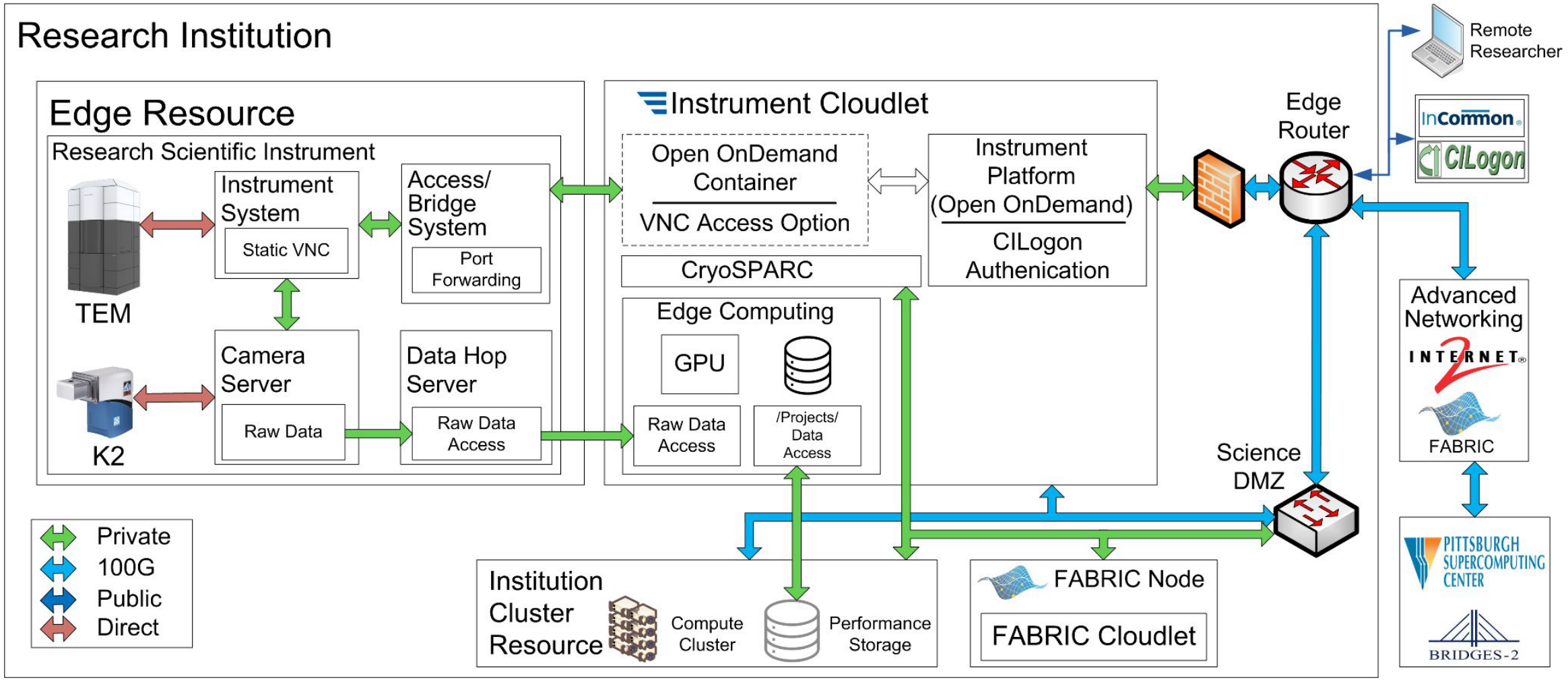
Remote Science



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LUMI OnDemand

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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.

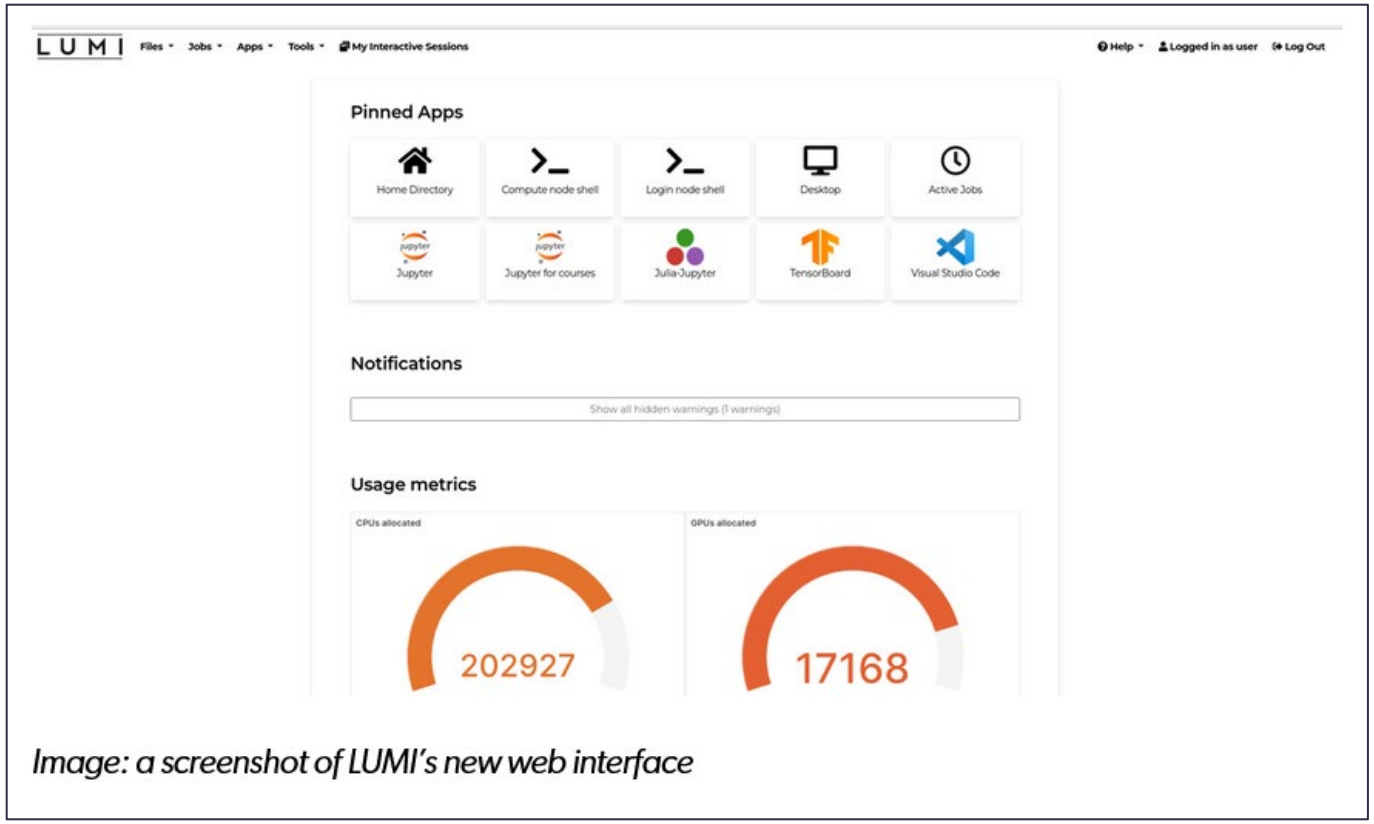


Image: a screenshot of LUMI's new web interface

openondemand.org/lumi

Riken Workshop

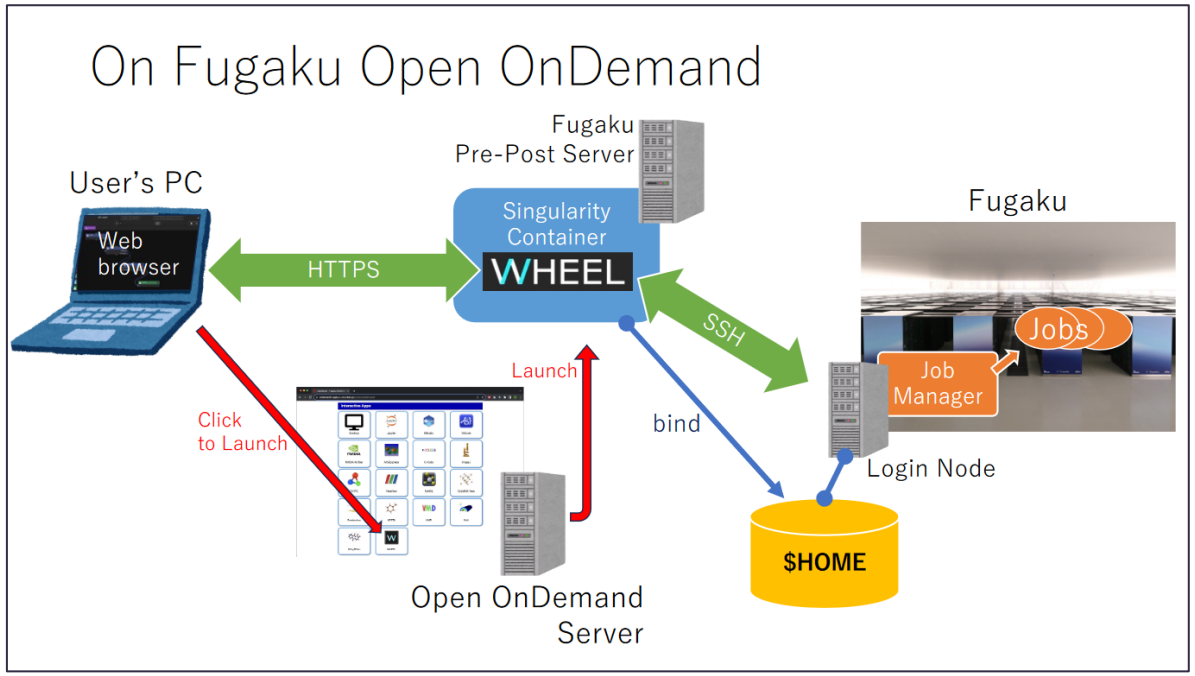
OPEN OnDemand

Some Visualization Applications (OnDemand)

Select **"All apps"** if **"Batch Jobs"** and **"Interactive Apps"** do not appear.

Default
- Recently Used Apps
- Passenger Apps

- **General-Purpose**
  - AVS/Express (Non-OSS)
  - ParaView
  - VisIt
- **Domain Specific**
  - VMD
  - OVITO
  - PyMol
  - …



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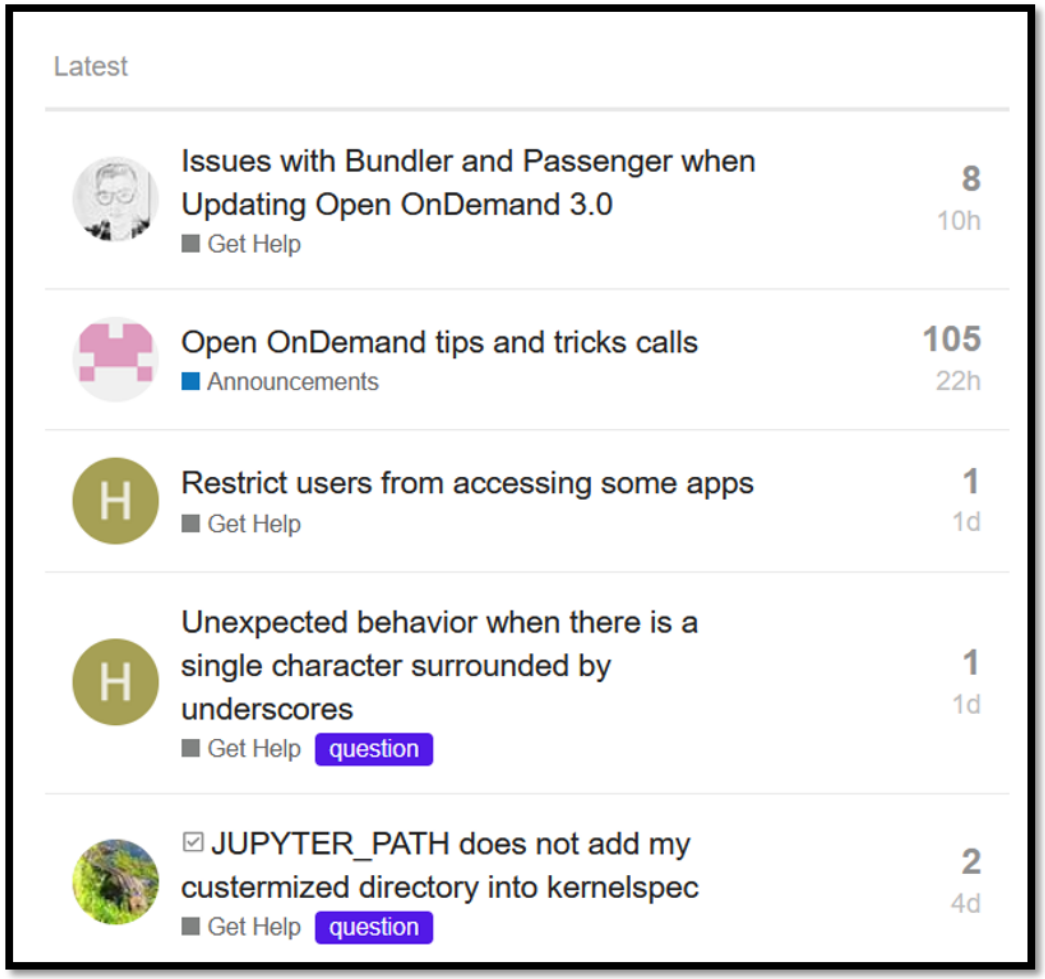
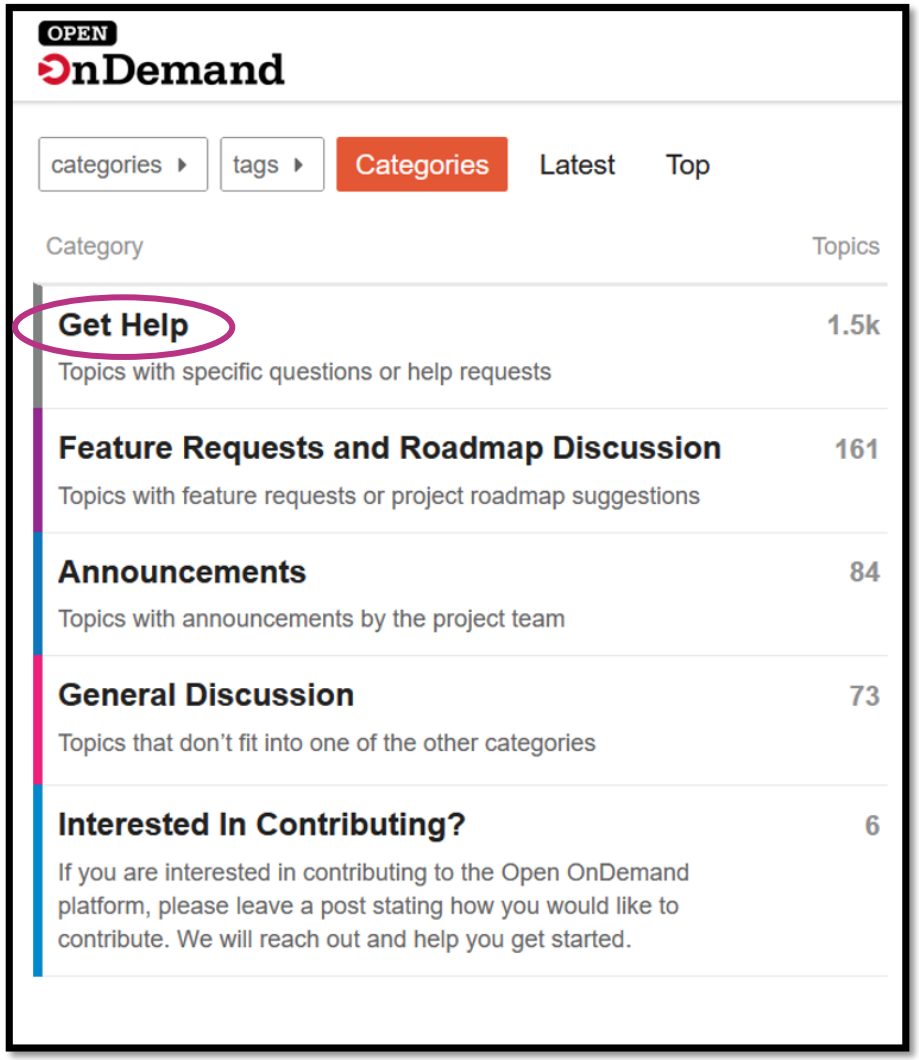
Engaging with the Project

Reaching Us





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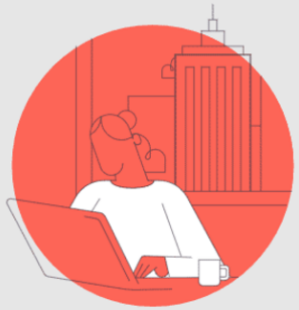
Staying Up To Date

OPEN OnDemand

openondemand.org

Connecting Computing Power
With Powerful Minds



Open OnDemand Version 3.1.7 Available

3.1.7 is now generally available, which includes several bug fixes and security related fixes. **Please note that the security fix is around leaking secret environment variables, so we strongly encourage all existing deployments to apply this update.**

Fixed:

- Logo images no longer take 100% width
- Dynamic batch connect forms now accept fields with numbers
- Host based profiles now correctly route to the correct server alias

Added/Changed:

openondemand.org/newsletter

Videos & Publications

OPEN OnDemand

Video Archive

Search

05.09.24
Project Webinar: CaRCC call

04.18.24
Project Webinar: Overview

11.02.23
Tips Webinar: ALL GOOD

09.07.23
Tips Webinar: PEARC23 BoF

06.01.23
Tips Webinar: Customizations

Publications

Search

05.13.24
ISC24 Preso: User group meeting

04.30.24
Project Paper: Style Guide

03.22.24
Project Paper: General brochure

11.14.23
SC23 Preso: CSC LUMI

11.12.23
SC23 Paper: Fugaku

openondemand.org/resources

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.

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.

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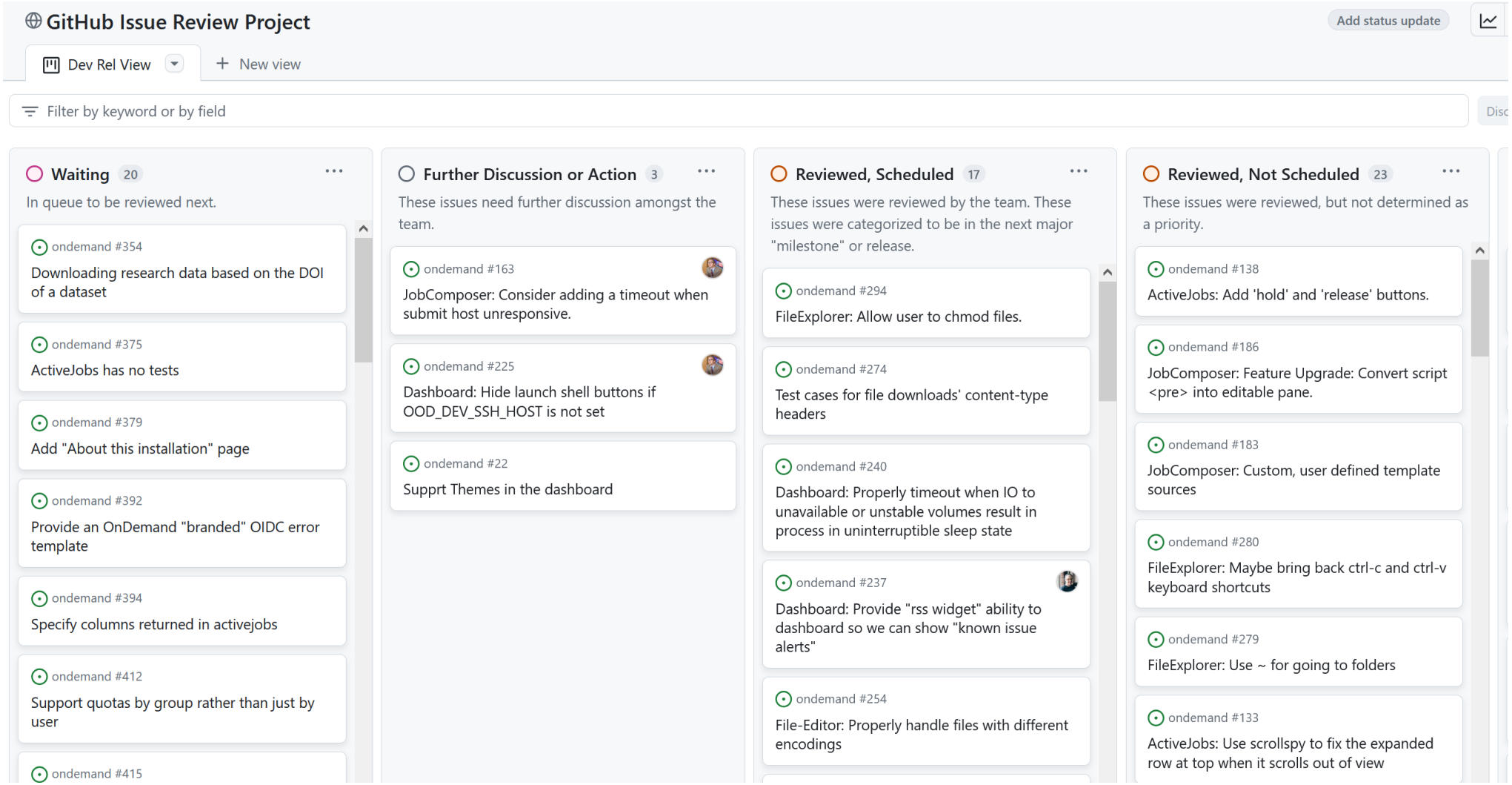
View the Live Roadmap



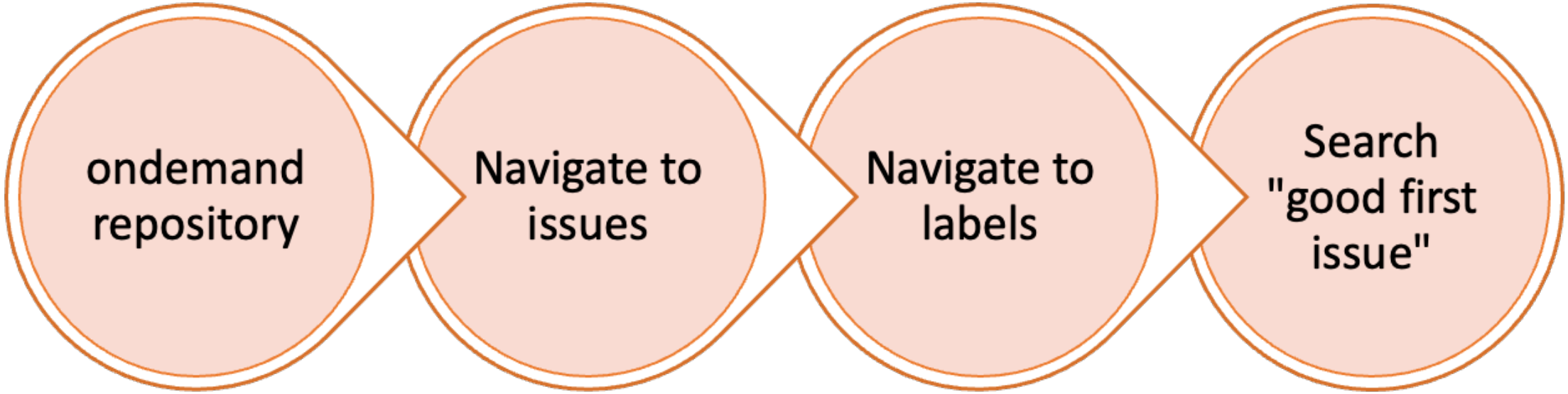
openondemand.org/issues

Getting Involved

OPEN OnDemand

Contribute to Open OnDemand!

We want our community to be a part of our development



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Thank You!

Alan Chalker
alanc@openondemand.org