OPEN OnDemand

Connecting Computing Power with Powerful Minds

Alan Chalker

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/intel-sc24

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

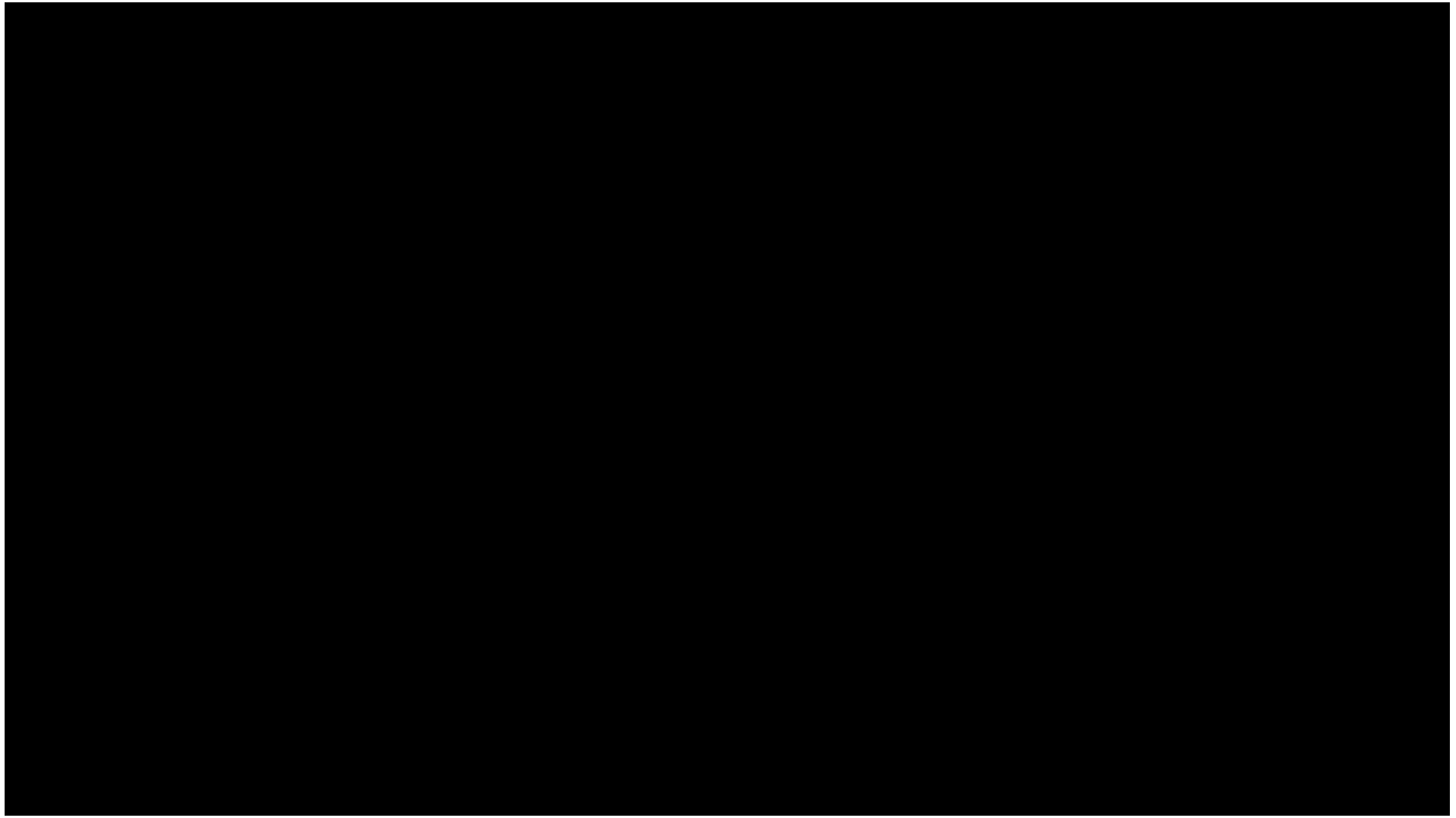
Start computing immediately. A simple interface makes Open OnDemand easy to learn and use.

Compatible with any device

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

openondemand.org/run

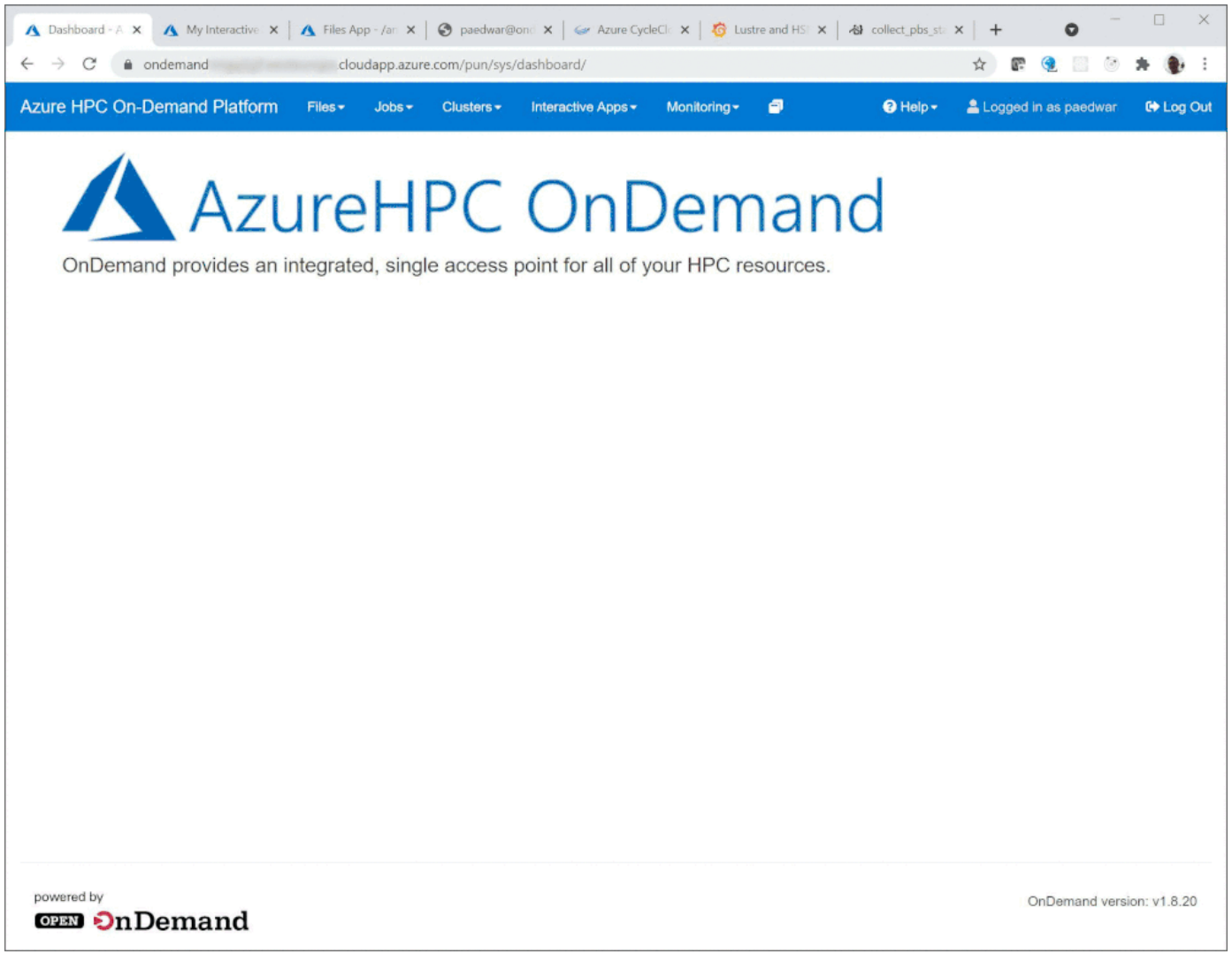
Any Challenge, Every Solution



openondemand.org/anychallenge

Commercial Cloud

OPEN OnDemand



aws

openondemand.org/aws

Microsoft Azure

openondemand.org/azure

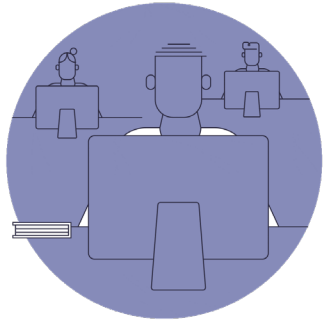
Google Cloud

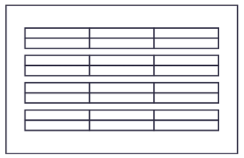
openondemand.org/gcp

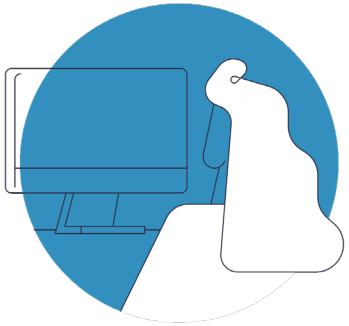
Install Open OnDemand

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

100+ Countries | 2,100+ 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
Virginia Tech

Industry

Alto Neuroscience
NOR-TECH — People Friendly Technology
SpaceX
NVIDIA
CORVID Cyberdefense
Microway

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Enabled Utilities & Apps

OPEN OnDemand

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

Community Events

Tips and tricks calls

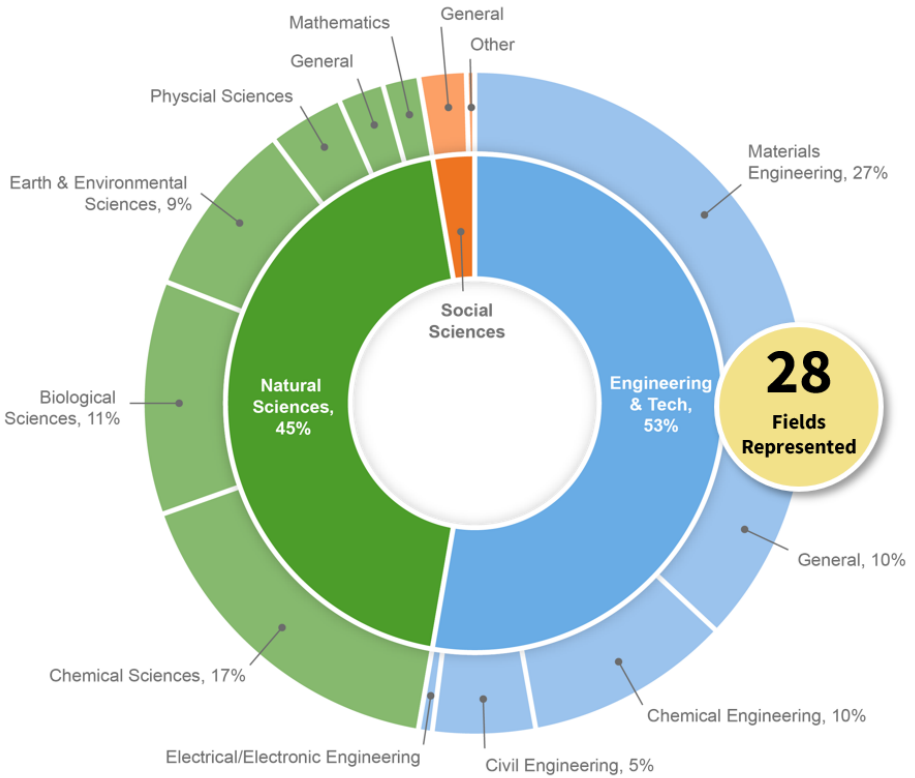
Hosted by the larger Open OnDemand community, tips and tricks webinars share best practices for setting up and using Open OnDemand. They take place on the first Thursday of every month at 1 p.m. ET.

Open office hours

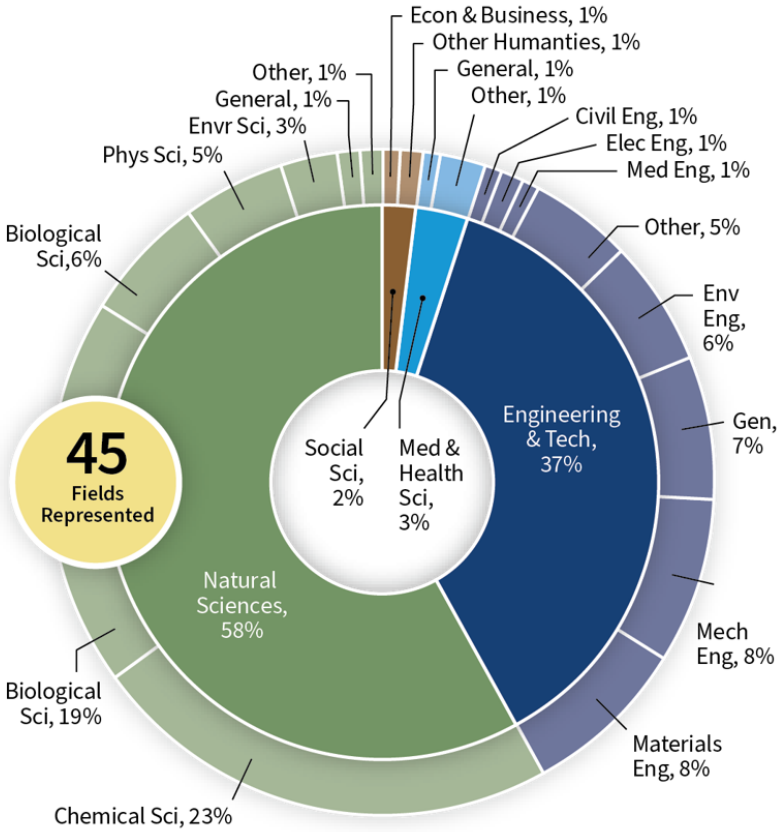
Hosted by our development team, Zoom open office hours are the perfect opportunity to ask questions or make a suggestion. They are held on the second Tuesday of every month from
11:15 a.m. to 12:45 p.m. ET.

openondemand.org/events

Impact at OSC



2017



2023

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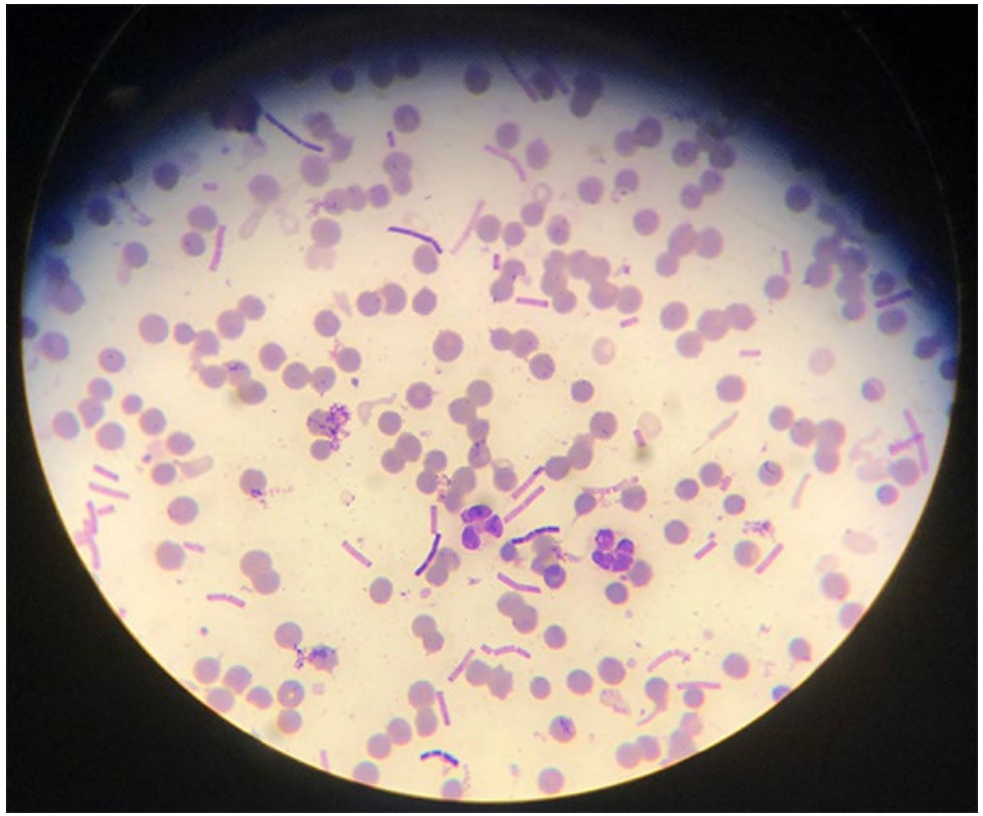
Anthrax-Infected Zebras

OPEN OnDemand



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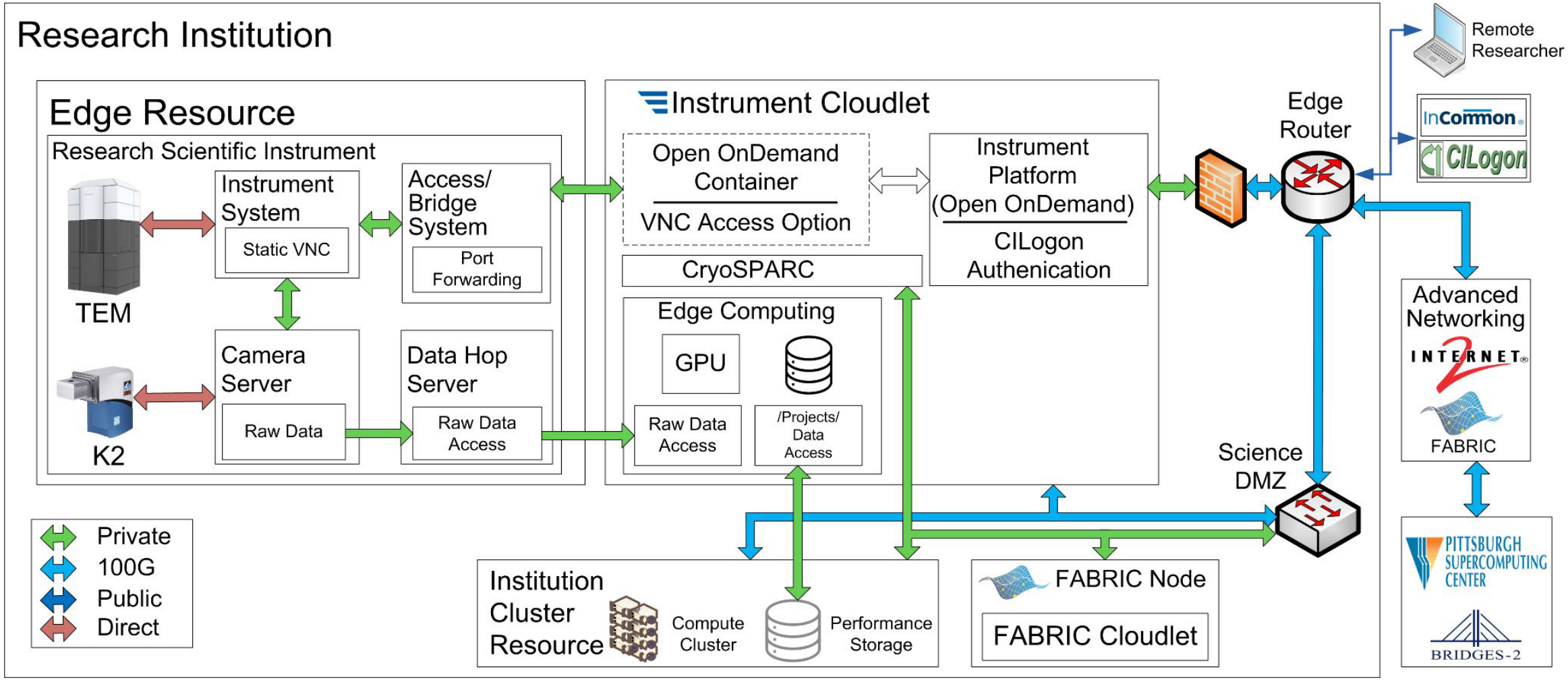
Remote Science



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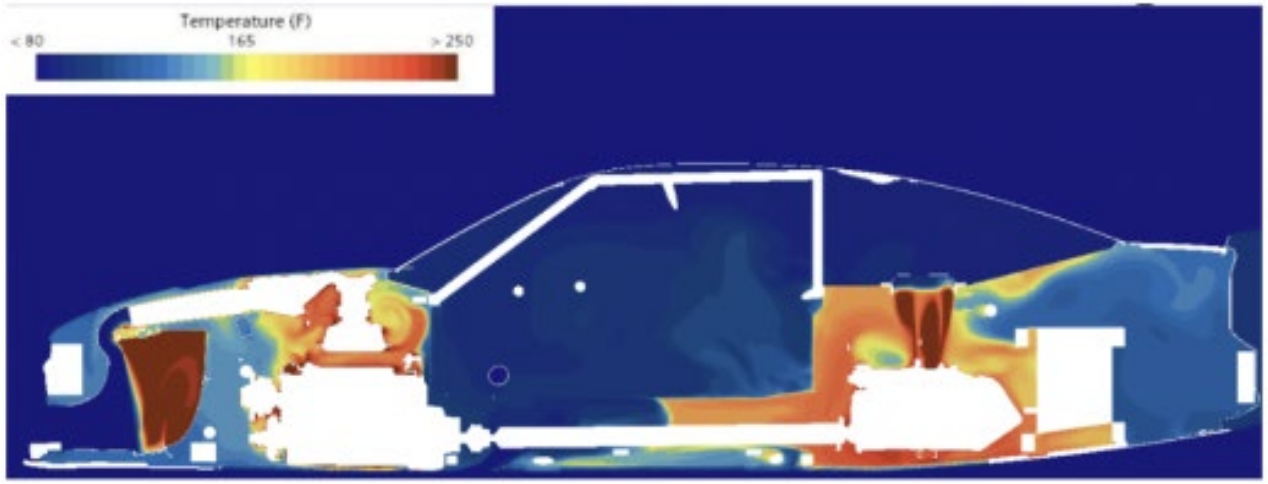
Race Car Comfort



openondemand.org/nascar

OSC Systems

	Pitzer	Pitzer Expansion	Ascend	Cardinal	TOTALS
Year Acquired	2018	2020	2022, 2024	2024	
Cost	$3.4 million	$4.3 million	$10 million	$9.6 million	$27.3 million
Theoretical Perf.	~1.3 PF	~2.6 PF	~14 PF	~10.5 PF	~28.4 PF
Nodes	260	398	298	378	1,334
CPU Cores	10,560 Intel	19,104 Intel	37,376 AMD	39,312 Intel	106,352
GPUs	64 NVIDIA	102 NVIDIA	644 NVIDIA	128 NVIDIA	938 GPUs

osc.edu/clusters

Cardinal

"The Intel Xeon CPU Max Series is an optimal choice for developing and implementing HPC and AI workloads … We take pride in supporting OSC."

- Ogi Brkic, Intel VP/GM of Data Center AI Solutions

osc.edu/news/cardinal

NASCAR Testing Results

OPEN OnDemand

Better Scalability for Large Parallel Jobs

Went from ~700 to ~1,500 cores max

Significant Speedup for Smaller Parallel Jobs

~30% to ~65% reduction in run time

Impressive Socket-Socket Communications Speeds

~50% reduction in wall time

*Intel does not control or audit third party data. You should consult other sources to determine accuracy

Staying Up To Date

OPEN OnDemand

openondemand.org

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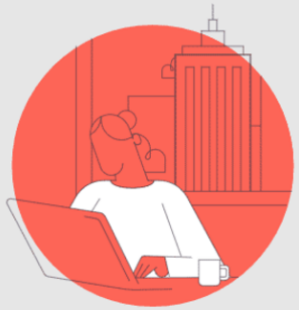
With Powerful Minds



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

Thank You!

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Visit our booth #1213 for Open OnDemand giveaways