OSG Campus Services

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What We Do

We help **campuses** share compute and storage capacity with researchers and **researchers** access and benefit from that capacity to reduce barriers to discovery for all of Open Science.
Services for Contributors
Summary of Services (also, Tuesday talk)

Planning
• Prepare you to describe sharing plan in proposal; provide letter of collaboration
• Discuss your process, technical details, and responsibilities (you and us)
• Offer suggestions on hardware and software configurations

Integration
• Plan and carry out the integration itself
• Host and operate certain services on your behalf – e.g., HTCondor-CE, OSDF Origin
• Support you throughout process; email, meetings, documentation – whatever works

Operations
• Monitoring: We proactively watch for issues and repair or contact you as needed
• Accounting: Show you what you’re contributing and who that helps (CE dashboard!)
• Support: Respond to requests, update software, host Campus Meet-Ups, etc.
Why Contribute?

- Join a national-scale CI ecosystem, contribute to great research
- Learn about HTC, advise your researchers on getting access
- Connect with the community, share ideas to hone local systems
- Maximize usage of purchased capacity
- Fulfill a promise made in a grant proposal (e.g., CC*)…
NSF CC* 2024 — 15 Oct 2024 Deadline

Area 2: Computing & the Computing Continuum (Campus or Region)
- For “a shared, high-performance network-connected compute resource”
- Campus ≤ $700,000, Region ≤ $1,400,000; ≤ 2 years; ≥ 50% for HW

Area 4: Data Storage and Digital Archives (Campus or Region)
- “a shared, high-performance network-connected data storage resource”
- Campus ≤ $700,000, Region ≤ $1,400,000; ≤ 2 years; ≥ 50% for HW

Area 5: Strategy (Campus or Region)
- “support PIs and teams requiring resources and time to coordinate and develop an approach to CC*-related activities”; ≤ $100K for 1 year
Services for Researchers
Researchers can use the OSPool today

If researchers on your campus would benefit from what we provide, they can start right away.

1. Fill out an account request form
2. Meet with us
3. Start running work

Researchers can use a test environment to prototype workloads at any time before or after creating an account.
Quick Start with Notebooks

OSPool Notebooks: Jupyter-based interface to an HTCondor Access Point

[Link to OSPool Notebooks: https://notebook.ospool.osg-htc.org]
Join Our Community

Don’t do everything on your own!

- **One-on-one Help**: consultations and office hours
- **Asynchronous Help**: email and documentation
- **Training**: monthly training, annual OSG School
- **Community Events**: HTC24, Campus Meet-Up
Technical Overview
OSPool Provisioning

Access Points

Idle Job Info

OSPool GlideinWMS Front-End

Capacity Requests

GlideinWMS Factory

Campus A Cluster

Capacity

Campus A HTCondor-CE

Capacity

Campus Z Cluster

Capacity

Campus Z HTCondor-CE

Capacity Requests (aka Glidein Jobs)
OSPool Provisioning Details

For a batch scheduler:

- CE requests capacity (as jobs) based on demand
- Scheduler may run req.s
- Our SW creates Execution Point & adds to OSPool

Using containers:

- You start containers to share
- Rest is the same
OSDF: Architecture

OSDF

Campus A
Origin

Campus A
Object Store

Registry

Director

Cache 1

Cache 2

Campus B
Origin

Campus B
Object Store

Registrars
OSDF Origin Details

- Underlying FS can be whatever (more or less); access is public/protected
- Mount only what you want to expose
- Origin node just needs Kubernetes, we do the rest
OSPool and OSDF: Usage

- Access Points
- Job
- Assigned to EP (Slot)
- Job
- EP A1
- Requests Data
- OSPool
- Data Delivered
- OSDF
- to Director
- to cache/origin
Questions?

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