**NESE**

- **Fast**, cost-effective, sustainable shared storage.
- Long term commitment from Harvard operations team.
- 24 PB Ceph, expanding rapidly with 70% buy-in.
- Add tape libraries for massive long term storage.

Interoperability with the NSF funded Open Storage Network by the MGHPCC team as reported at the annual OSN workshop at TACC.

Nebraska Storage Exchange

**PI:** Saul Youssef, **Co-PIs:** Scott Yockel, Chris Hill, John Goodhue, Devesh Tiwari, Mike Zink
**Boston University, Harvard University, MIT, MGHPCC, Northeastern University, UMass**

**Award #: 1753840**

**New England Research Cloud (NERC)**

- **New Regional Stakeholders**
  - Federal Funded Workforce Development: Northeast CyberTeam
  - High Ed Consortia: Five College Consortium, Colleges of the Fenway, The Boston Consortium, ...
  - Other Higher Ed: Boston College, Brandeis, Bentley, ...
  - University incubator start-ups: Zappa Computing, K-12 support for data analytics learning.

- **New Services**
  - (NERC) Research Cloud Infrastructure & Software Services
  - Leadership class HPC
  - (NESE) Distributed Data & Archiving Services
  - Collaboration / Facilitation & Support
  - Innovation Hub / Industry Engagement
  - Commercial Cloud & Services Broker

Join project between Boston University and Harvard University Research computing. Proposal to the Massachusetts Technology Council.

**NESE** provides the main storage for the U.S. ATLAS Northeast Tier 2 Center, one of four such centers in the U.S. for the Large Hadron Collider.

- Main NESE deployment is at MGHPCC
- 15 megawatt essentially zero Carbon footprint data center.
- Jointly operated by BU, Harvard, MIT, Northeastern and UMass.
- Three new top500 systems installed in the past year.

**NESE** will provide storage for the newly NSF funded Open Cloud Textbook project, PI Mike Zink of UMass/Amherst with Orran Krieger of Boston University and the Massachusetts Open Cloud team.

**MIT Earth, Atmospheric and Planetary Sciences** uses NESE storage, coordinated by Chris Hill of MIT.

**University of Massachusetts Amherst** collaboration on the NSF funded Large Millimeter Telescope.

**UMass Amherst** Institute for Applied Life Sciences is funded by the Massachusetts Life Sciences Center.

**NESE** Collaborate with Sage Well’s team at RedHat via a SSM Boston University/RedHat “Collaboratory” agreement. Harvard and BU are founding members of the Ceph foundation.