BLUE WATERS
SUSTAINED PETASCALE COMPUTING

Blue Waters User Monthly Teleconference
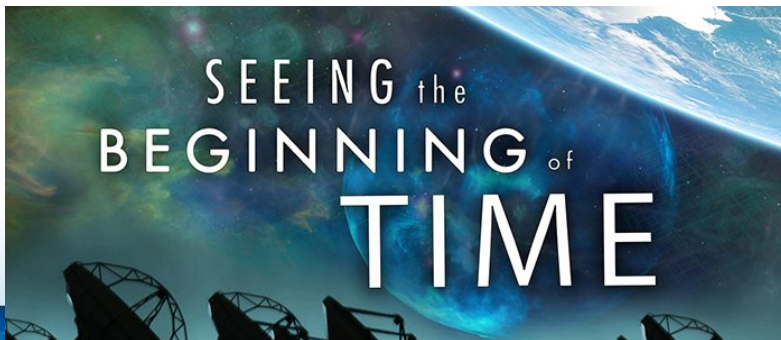
A Successful Symposium

- ~180 registered. No snow!

- Congratulations to Trivia Question winners.

  - # of submitted jobs, monthly utilities, # of unplanned outages.

- Tutorial slides will be posted to

  - https://bluewaters.ncsa.illinois.edu/symposium-2018-tutorials

Agenda

- Recent Events, Coming Changes to Blue Waters
- Usage, Utilization and other Items
- Upcoming Opportunities
- Request for publications!
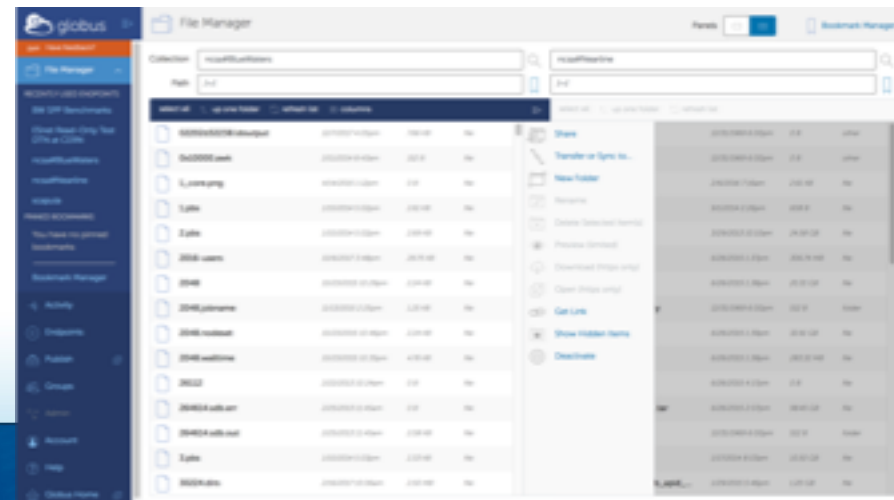
Recent Events and Outages

- 6/12/2018 - Power interruption due to electrical storm. Lost internal login node. Returned to service in under 7 hours.

- 6/07/2018 – System issue. Loss of boot node. Lead to congestion protection issues on high-speed network. Returned to service in under 8 hours.

Recent Changes

- Reminder that Singularity is available.
  - https://bluewaters.ncsa.illinois.edu/singularity

Upcoming Changes

- Globus CLI (hosted ssh-based) EOL 8/1/2018.
  - Move to using Globus Python CLI
  - https://docs.globus.org/cli/
  - We are working to provide it via a module.
- New Globus Transfer Web App
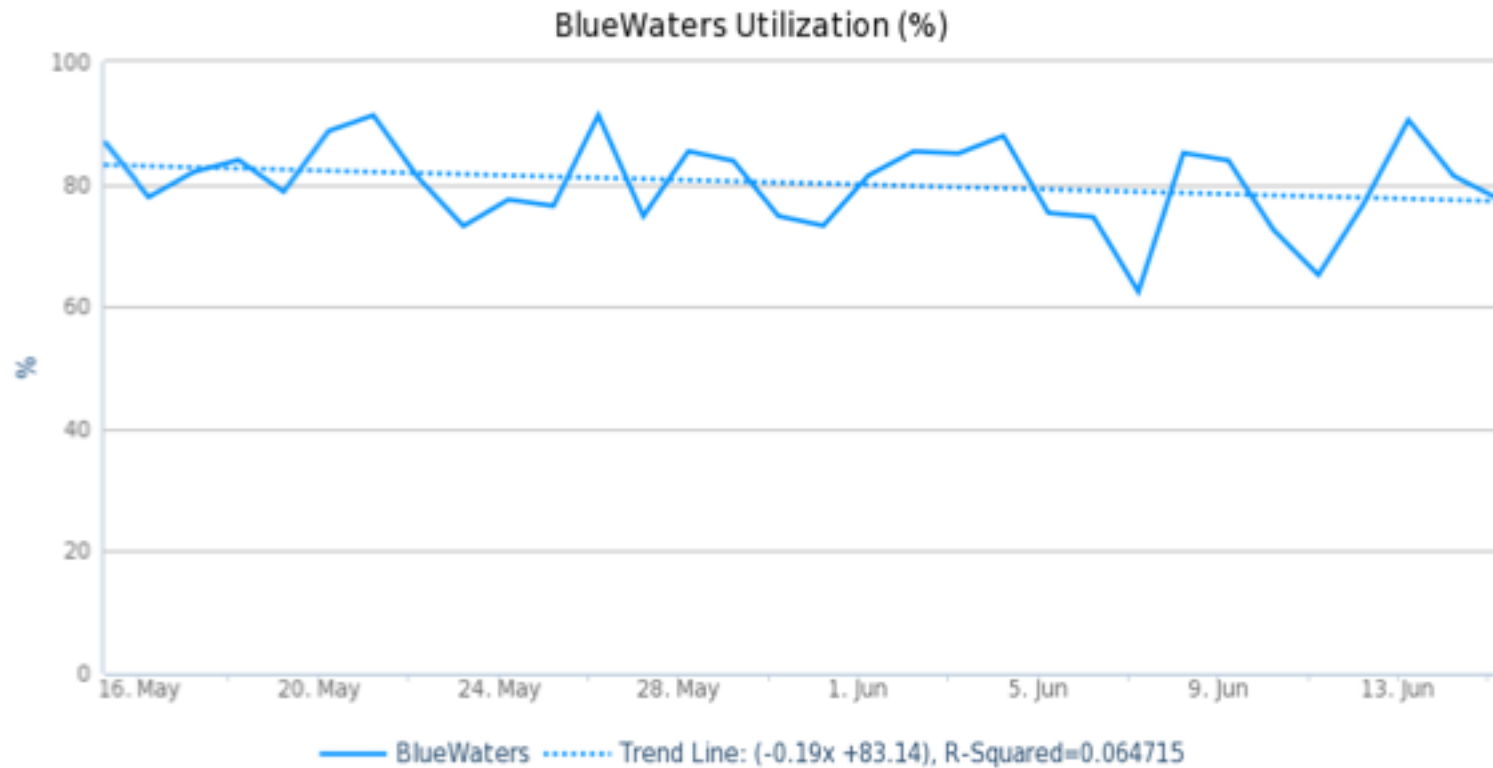 - Beta test
    - https://app.globus.org

CUDA 9.1

- Still on our road map.
- ORNL Titan upgraded to CUDA 9.1 last week.

Usage, Utilization and other Items

- Overall Utilization last 30 days

BlueWaters Utilization (%)

BlueWaters ‧‧‧‧‧‧‧‧ Trend Line: (-0.19x +83.14), R-Squared=0.064715
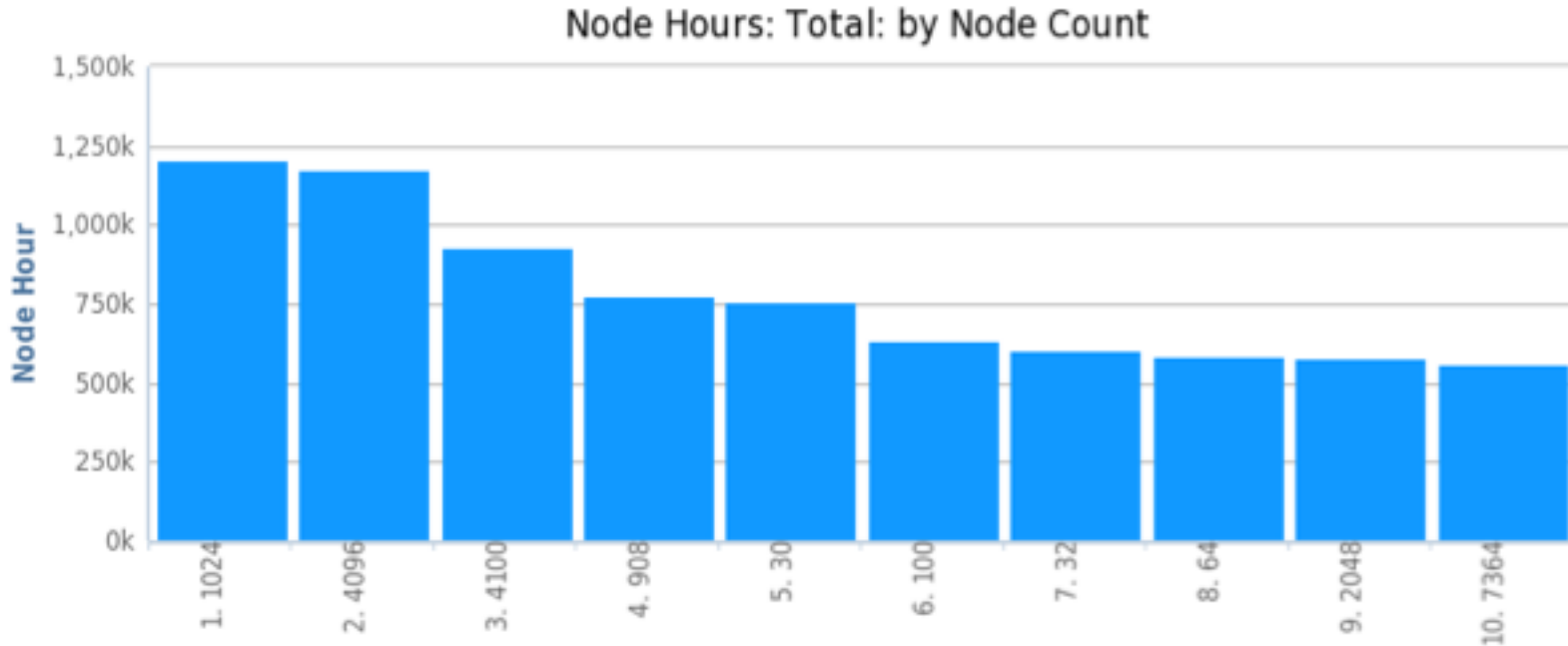
2018-05-15 to 2018-06-15 Src: HPcDB Powered by XDMoD/Highcharts

Backlog

- Last 30 days.

- Vertical axis in units of **nodes**. Colors are different users.

- Red **below** the x-axis indicates unreserved nodes. Blue **below** the x-axis indicates draining.

- Next batch of allocations expire end of August.

Workload Details

Node Hours: Total: by Node Count

- Large contribution from 1K to 7K XE jobs.
- Data combines XE and XK jobs.
- Last 30 days.

Job scheduler iteration time

Sum of Moab Iteration Time from 5/21/2018, 9:39:00 PM to 6/15/2018, 9:44:00 PM

— Moab Iteration Time (seconds)

- Briefly experimented with deep reservation depth..

Blue Waters Weekly Webinar Series

- Beyond Exascale: The Future of HPC - Wednesday, July 11, 2018.

- Webinars are at 10 AM Central Time.

- For more information about the webinar series, including registration, abstracts, speakers, as well as links to Youtube recordings, please visit the Blue Waters webinar series webpage.

- Make sure to RSVP on Facebook and on the Blue Waters Portal

- We welcome suggestions for topics that will benefit the petascale community. Send your suggestions to bw-eot@ncsa.illinois.edu.

NCSA GPU Hackathon - September 10-14

- Team applications for the NCSA [Blue Waters GPU Hackathon](#) are now open.

- Will take place September 10-14, 2018 at NCSA.

- The deadline to apply **is June 18, 2018**.

- Prior GPU experience is not required, as those selected will be paired with experienced mentors who will teach them how to leverage accelerated computing in their own applications or further optimize their codes.

- https://bluewaters.ncsa.illinois.edu/bw-hackathon-2018

XSEDE Training Events

- https://portal.xsede.org/course-calendar

Request for Science Successes

- We need to be current on products that result from time on Blue Waters such as:
  - Publications, Preprints (e.g. arXiv.org 😀), Presentations.
  - Very interested in data product sharing.
- Appreciate updates sooner than annual reports.
  - Send to gbauer@illinois.edu
- NSF PRAC teams send information to PoCs.
- See the Share Results section of the portal as well.
- **Be sure to include proper acknowledgment**
  - Blue Waters - National Science Foundation (ACI 1238993)
  - NSF PRAC – OCI award number