

# BLUE WATERS

SUSTAINED PETASCALE COMPUTING

11/20/17

## Blue Waters User Monthly Teleconference



GREAT LAKES CONSORTIUM  
FOR PETASCALE COMPUTATION

CRAY®

**Top  
Supercomputing  
Achievement**

**HPC** wire

**Editors' Choice  
Awards  
2017**

# SC17 Highlights

- SEAS support of the ArcticDEM project.
- NCSA Industry “Top Supercomputing Achievement”



# Agenda

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

## Recent Events and Outages

- 10/25 - Blue Waters Emergency Maintenance
  - Security patch.
- 11/06 – Two cabinets with cooling issue. Resolved in under 2 hours.
- 11/11 – Two cabinets with cooling issue. Resolved in under 1 hour.

## Recent Changes

- New OpenSSL module
  - New svn, git and wget modules
- Available but not default
  - PGI 17.5
  - FORGE (DDT) 7.0.5.1
    - Resolves issue with CUDA+MPI

## System News

Filtered by: [Mandatory](#) | [Best Practices](#) | [Scheduled Outages](#) | [Unscheduled Outages](#) | [System Notices](#) | [Training and Opportunities](#) | [General](#) | [Policy Changes](#) | [Software Updates](#) | [New Functionality](#) | [Public Affairs](#) |

[Blue Waters User Call: October 16th at 1PM Central \[edit\]](#)

Created by: gbauer 2017-10-13 14:27:12 (Channels: [general](#))

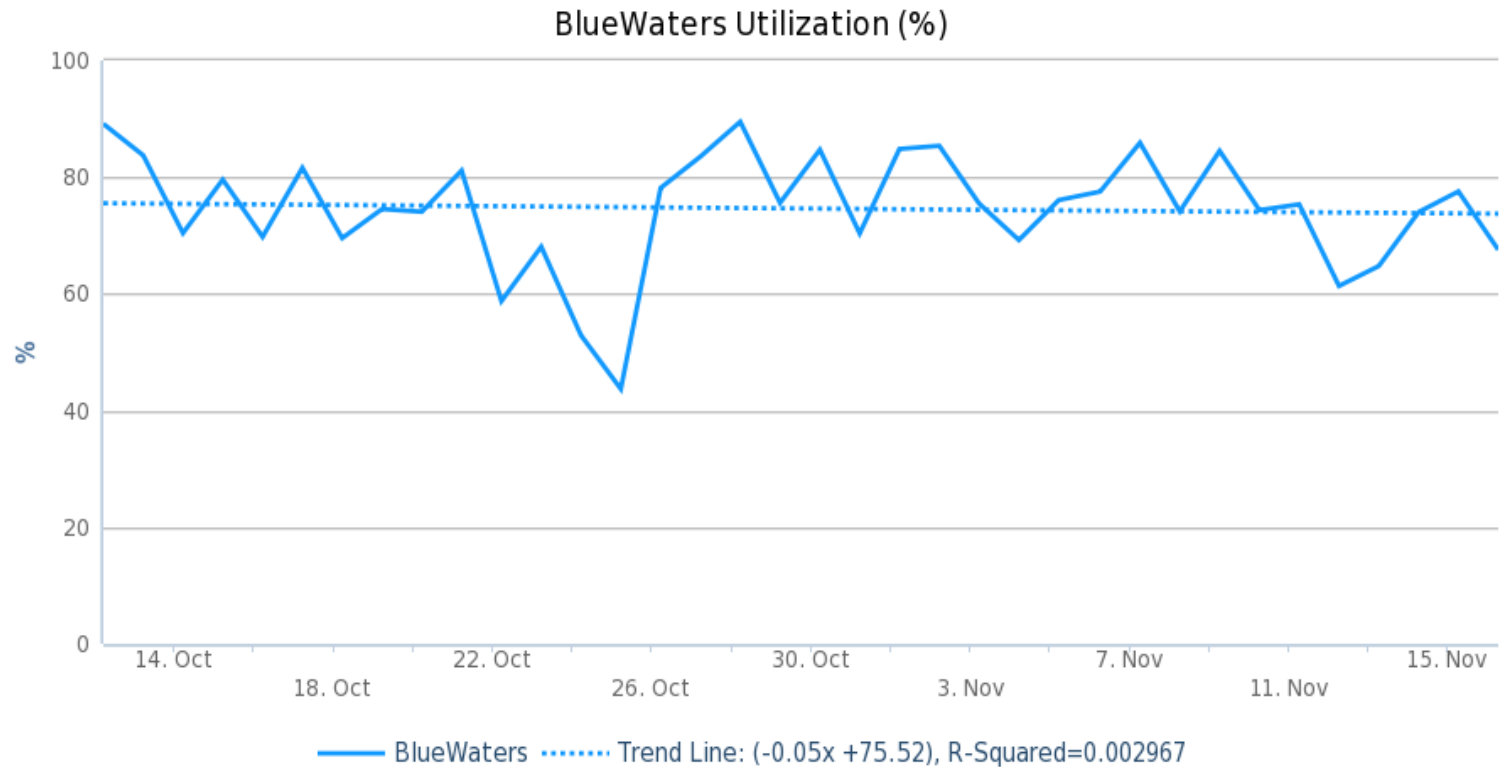
Blue Waters Partners;

Please join us for the next Blue Waters Use...

- Unselect channels. Must subscribe to “Mandatory”
- Notices may appear on new system-blog page
  - <https://bluwaters.ncsa.illinois.edu/system-blog>

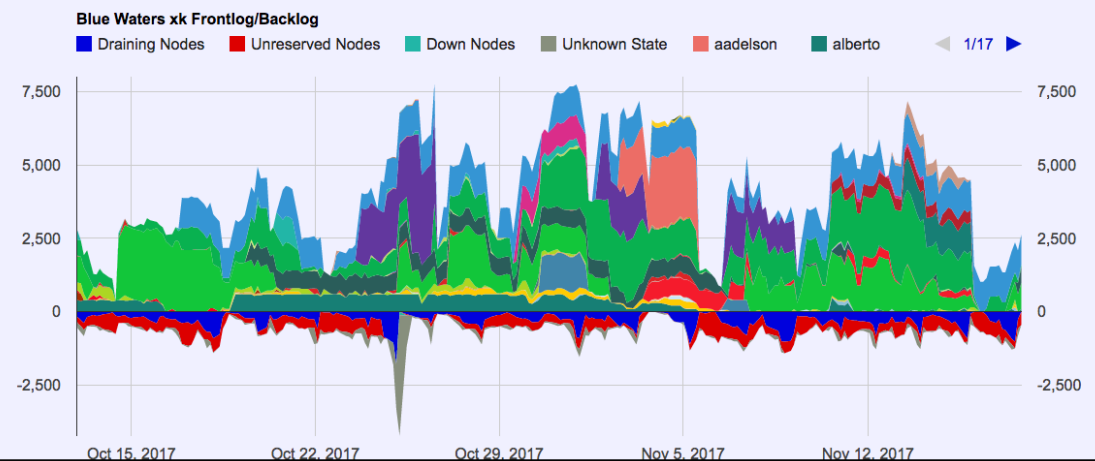
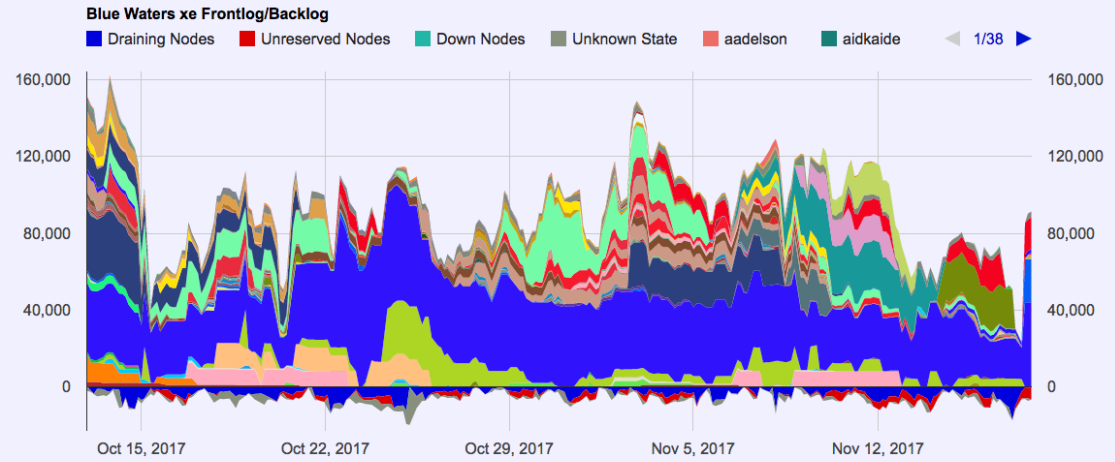
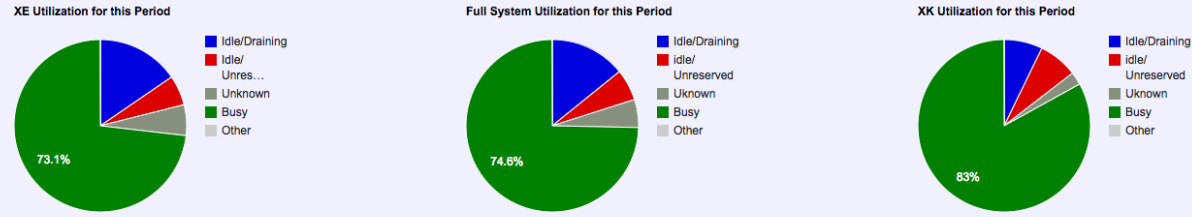
# Usage, Utilization and other Items

- Overall Utilization last 30 days



## Backlog

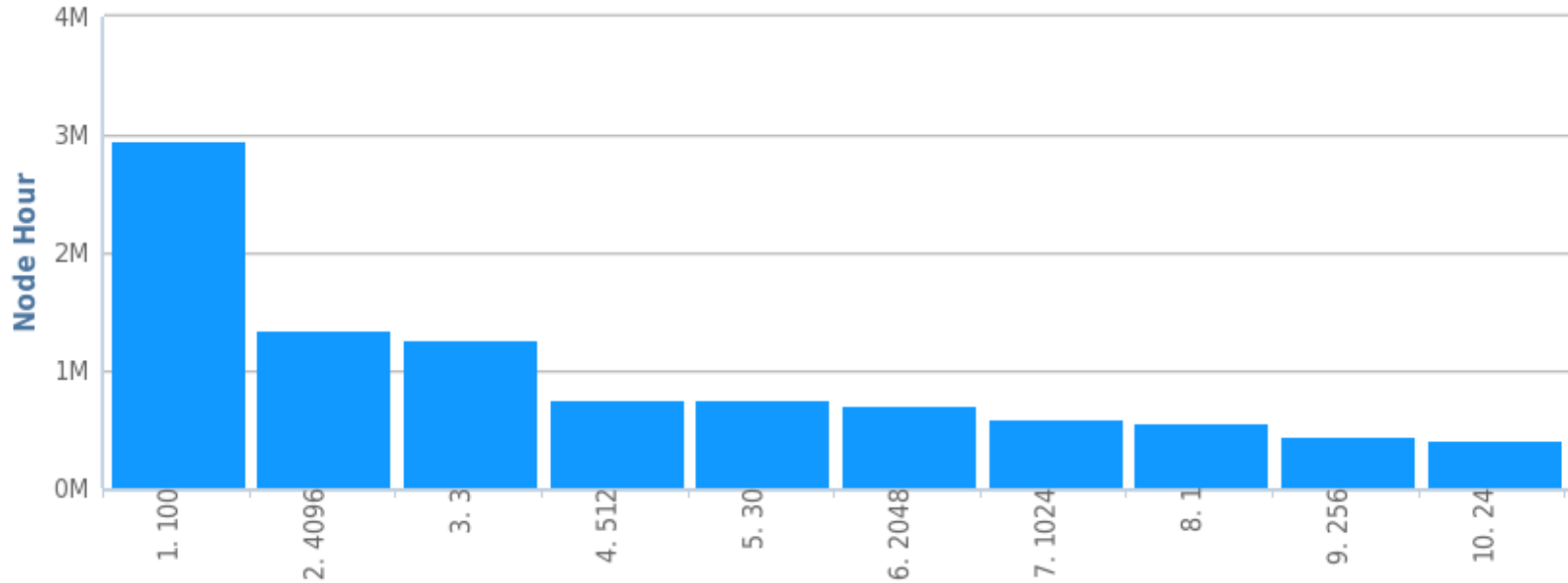
- Last 30 days.
- Vertical axis in units of **nodes**. Colors are different users. Red below the x-axis indicates unreserved nodes. Blue below the x-axis indicates draining.
- Added utilization pie charts showing XE and XK utilization by node state.





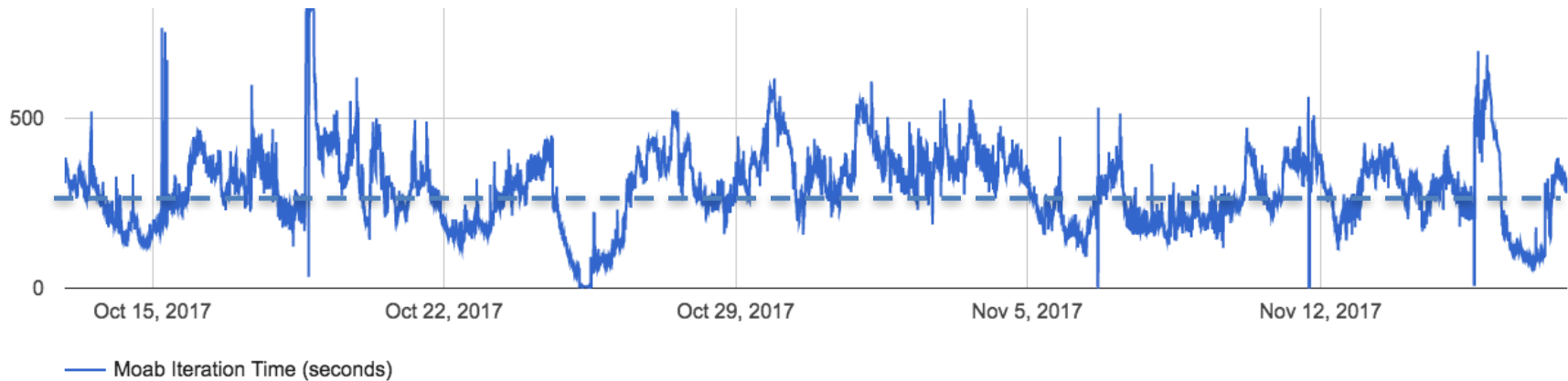
# Workload Details

Node Hours: Total: by Node Count



- Data combines XE and XK jobs.
- Last 30 days.

## Job scheduler iteration time



- Working to keep iteration time  $< 300$  seconds.

# Blue Waters Weekly Webinar Series


- 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](#).

No webinars November 15 — November 22, 2017					
November 29, 2017	Software Engineering Practices	Jeff Carver	--	Live	Survey
December, 2017					
No webinar on December 6, 2017					

## XSEDE Training Events

- Big Data- December 5-6, 2017
  - Two day Big Data workshop, to be held December 5-6, 2017, will focus on topics such as Hadoop and Spark. Wide Area Classroom (WAC) training platform will be used.

## 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](https://arxiv.org) ), Presentations.
  - Very interested in data product sharing.
- Appreciate updates sooner than annual reports.
  - Send to [gbauer@illinois.edu](mailto: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