

# BLUE WATERS

SUSTAINED PETASCALE COMPUTING

2/19/17

## Blue Waters User Monthly Teleconference



GREAT LAKES CONSORTIUM  
FOR PETASCALE COMPUTATION

CRAY®

# Agenda

- Allocation Matters
- Changes and Recent Events
- Utilization and Usage
- Opportunities
- PUBLICATIONS!
- Special Presentation – Shifter on Blue Waters

## Allocation Matters

- No Spring 2017 PRAC call for proposals.
- Expect next PRAC call to be in Fall 2017.
  
- Current teams – monitor your usage and expect inquiries from the Blue Waters project office if usage is well below projected linear target usage.

## Recent and Future Changes

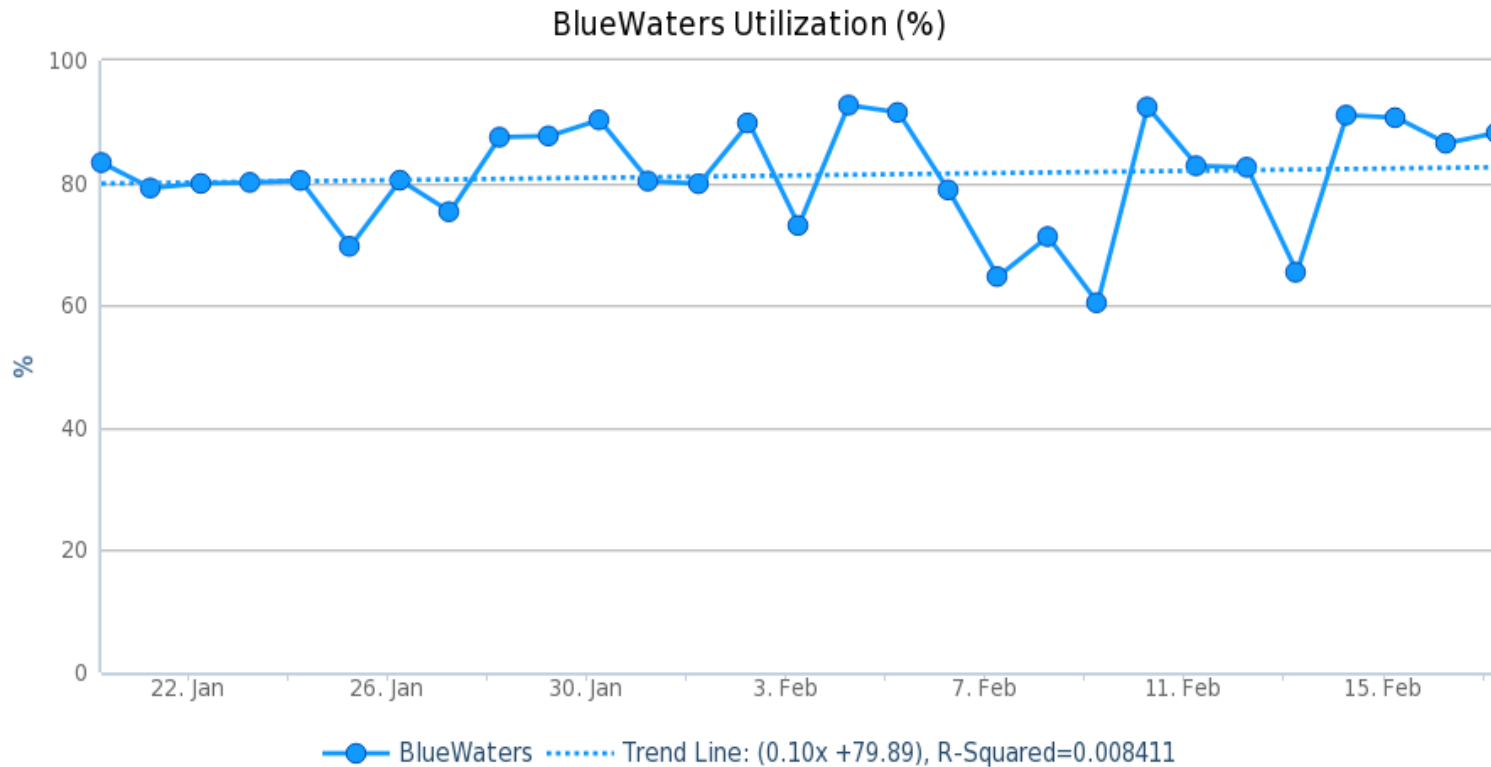
- No changes since last call.
- Preparing for Programming Environment PE 16.11.
  - Released (Nov 03, 2016).
  - Positive testing with SPP applications.
  - GCC 4.9 will still be default for CUDA compatibility with 5.x and 6.x versions available.
  - We encourage you to test your applications.
  - See [Programming Environment Changes](#) page on the portal.

## Recent Events (since last User call)

- 2/11/17 – Local power issue caused some OSSs and XDPs to go down.

# Usage, Utilization and other Items

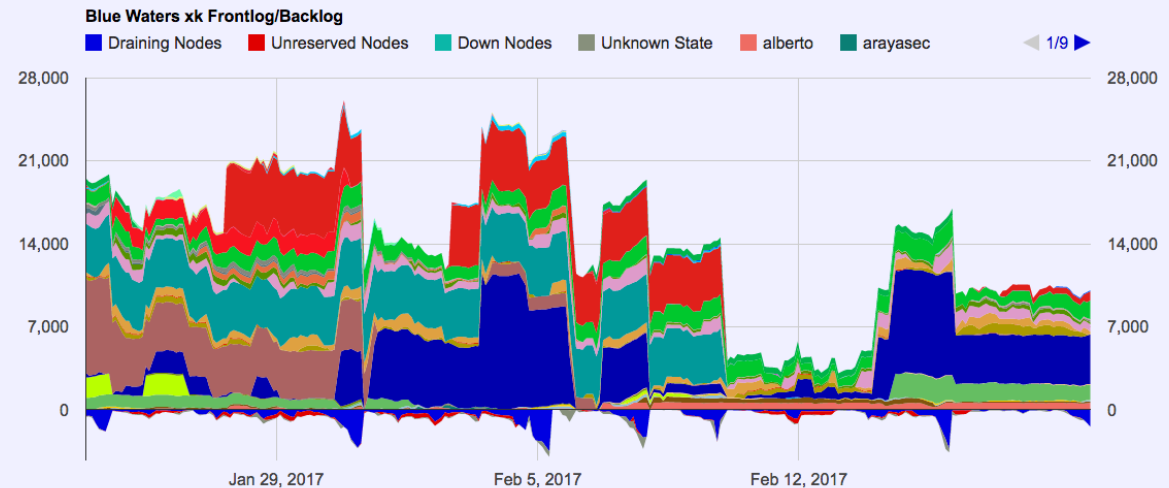
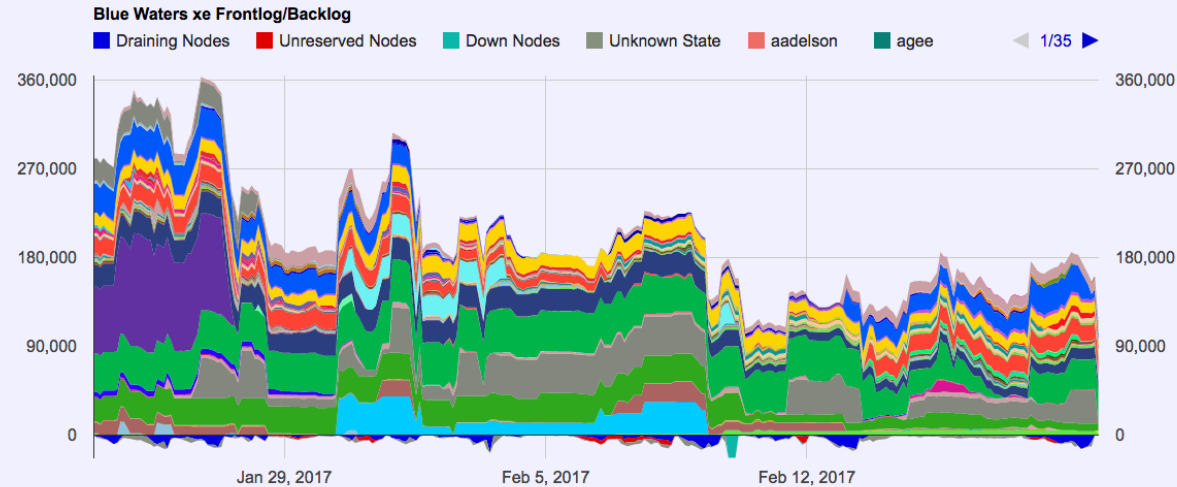
- Utilization since last BW User Call (Jan 23)



2017-01-20 to 2017-02-17 Src: HPCDB. Powered by XDMoD/Highcharts

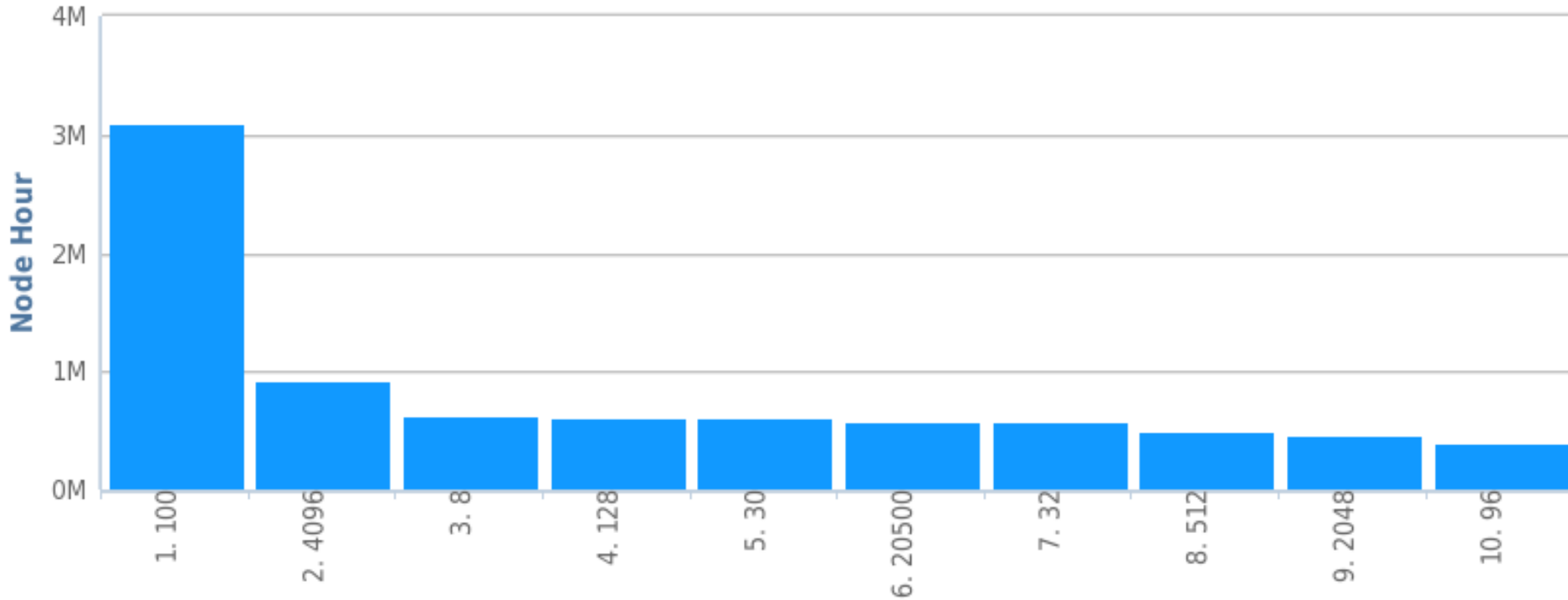
## Backlog

- Since BW User Call 01/23
- Vertical axis in units of **nodes**. Colors are different users.
- Mix of jobs and 3 – 4 x machine node count to get good sustained utilization.
- Red below the x-axis indicates unreserved nodes.
- Blue below the x-axis indicates draining.



# Workload Details

Node Hours: Total: by Node Count



- Data combines XE and XK jobs.
- Since last BW User Call (Jan 23)
- 2048, 4096 and 20500 node XE jobs.



## Upcoming Opportunities

- No Spring 2017 PRAC. Watch [NSF website](#) or Blue Waters portal [allocations page](#).
- 2017 Blue Waters Symposium announcements being sent. This serves as the NSF PRAC PI Meeting.

# IHPCSS

## (International Summer School on HPC)

- Graduate students and postdoctoral scholars from institutions in Canada, Europe, Japan and the United States are eligible.
- June 25 to 30, 2017, in Boulder, Colorado.
- Applications are due March 6, 2017.
- Sponsored by Compute/Calcul Canada, the Extreme Science and Engineering Discovery Environment (XSEDE), National Science Foundation, the Partnership for Advanced Computing in Europe (PRACE) and the RIKEN Advanced Institute for Computational Science (RIKEN AICS).
- Interested students should apply by March 6, 2017. Meals and housing will be covered for the selected participants, also support for travel will be given.
- Further information and application: <http://www.ihpcss.org>


## GECAT

- [Global Initiative to Enhance @scale and Distributed Computing and Analysis Technologies](#) at NCSA) has two exciting new, open call, ongoing funding opportunities.
  - New International Virtual Research Organizations (IVRO) partnerships,
  - New international collaborations with existing NCSA IVROs.
- Both solicitations are open calls and do not have associated deadlines.
- Submitted proposals will be peer reviewed with final funding decisions being made by the project director on recommendations from the project steering committee.

# Blue Waters Weekly Webinar Series

- Starts Wednesday, March 1. Webinars will begin at 10 a.m. Central Time (UTC-6).
- Each webinar will be led by a developer or an expert on the topic. The first visualization webinar, “Introduction to Data Visualization” hosted by Vetrica Byrd, Purdue University, will take place on March 1, 2017; the first workflows webinar, “Overview of Scientific Workflows” will be hosted by Scott Callaghan, University of Southern California, on March 8, 2017; and the first petascale application improvement discovery webinar, “Getting I/O Done with Parallel HDF5 on Blue Waters” hosted by Gerd Heber, HDF Group, will take place March 29, 2017. The list of webinar tracks as well as specific sessions will be refined and expanded over 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](#).

## 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