

BLUE WATERS

SUSTAINED PETASCALE COMPUTING

3/26/17

Blue Waters User Monthly Teleconference



GREAT LAKES CONSORTIUM
FOR PETASCALE COMPUTATION

CRAY®

Agenda

- Limited to 30 minute due to trial evaluation of zoom.us.
- Changes and Recent Events
- Utilization and Usage
- Opportunities
- **PUBLICATIONS!**

Recent and Future Changes

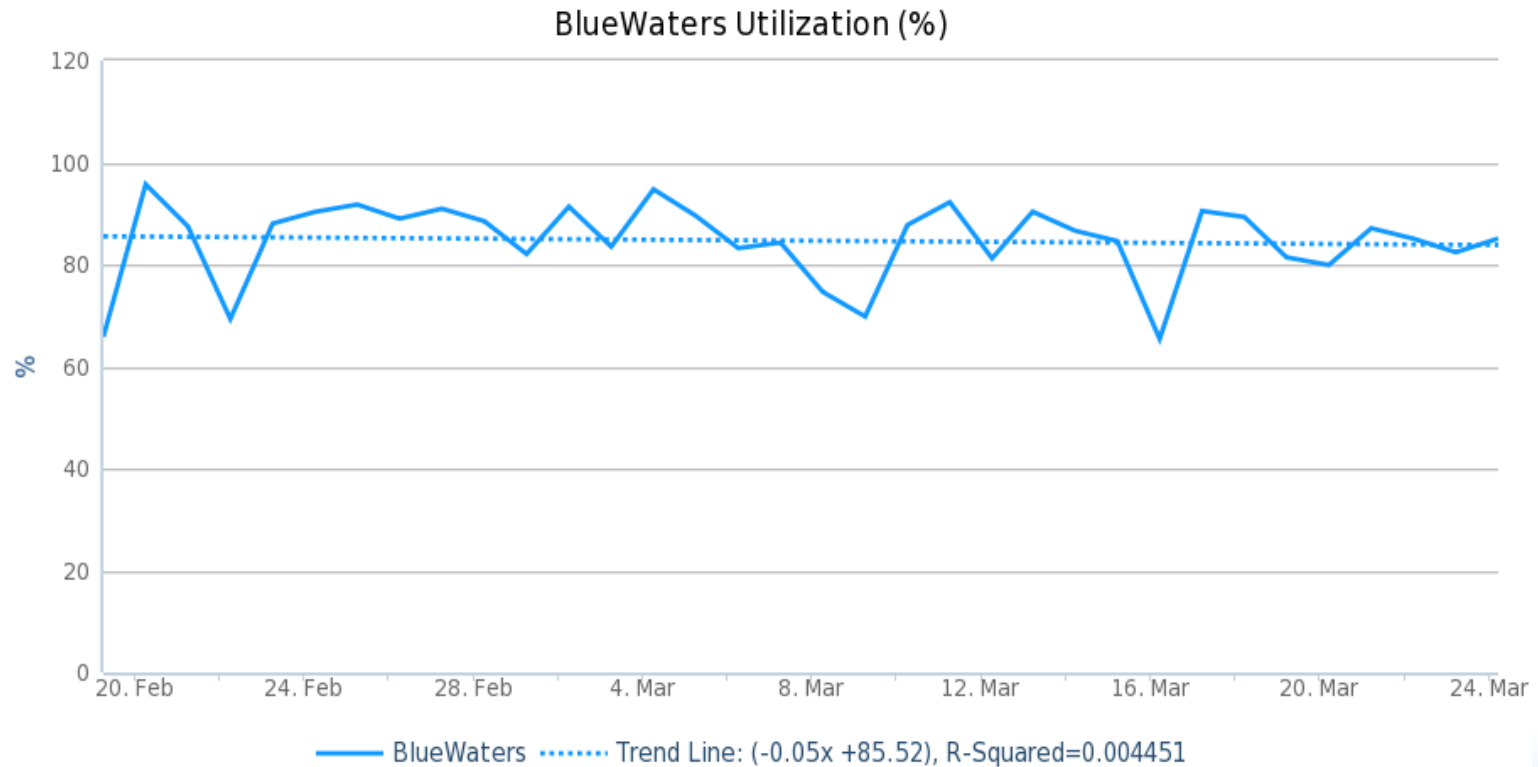
- During tomorrow's PM
 - Programming Environment (PE) 16.11 (Nov, 2016).
 - CCE 8.4.6, Intel 16.0.3.210, PGI 16.3.0.
 - GCC 4.9 will remain default for CUDA compatibility.
 - GCC 5.x and 6.x versions available.
 - See [Programming Environment Changes](#) page on the portal.
 - Two charge factor discounts to be discontinued: backfill and wall clock accuracy.

Recent Events (since last User call)

- 3/8/17 – 3 cabinets emergency power off (EPO) from cooling issue.
- 3/15/17 – 1 cabinet power supply failure.
- 3/16/17 – 1 cabinet power supply failure.
- 3/25/17 – hanging process status on login nodes.
- 3/25/17 – Scratch file system, slow MDS failover due to high load.

Usage, Utilization and other Items

- Utilization since last BW User Call (Feb 20)

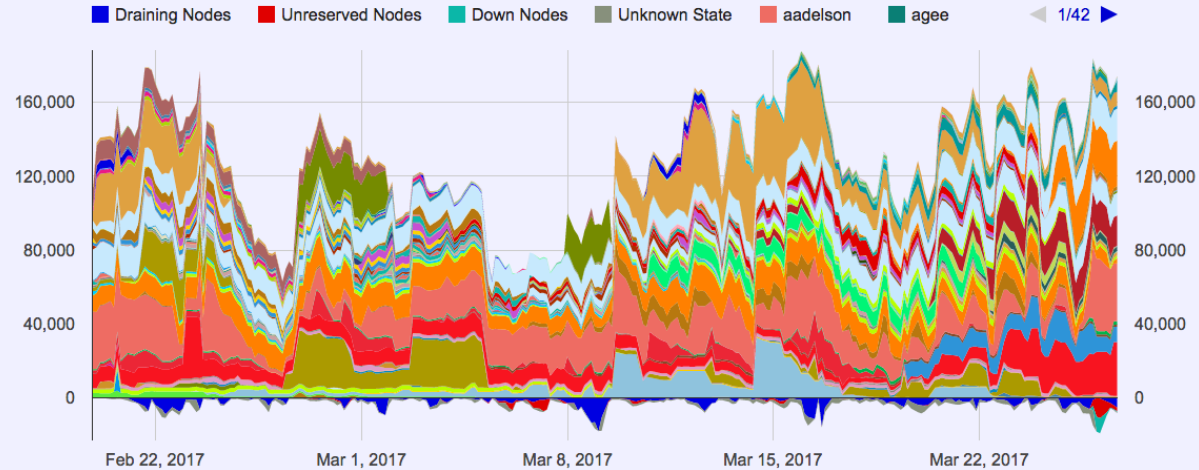


2017-02-19 to 2017-03-24 Src: HPCDB. Powered by XDMoD/Highcharts

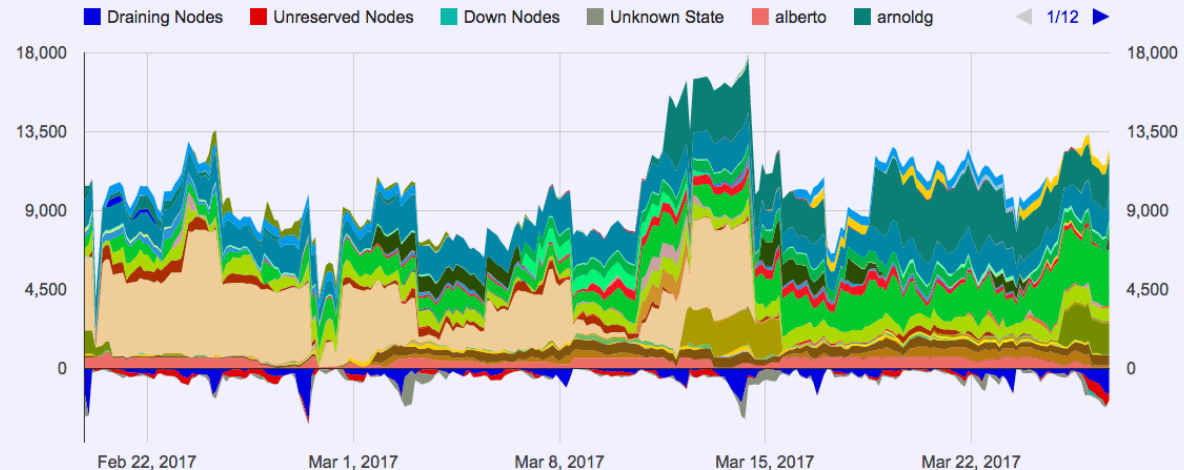
Backlog

- Since BW User Call 02/20
- Vertical axis in units of **nodes**. Colors are different users.
- Smaller XE backlog of late.
- Red below the x-axis indicates unreserved nodes.
- Blue below the x-axis indicates draining.

Blue Waters xe Frontlog/Backlog

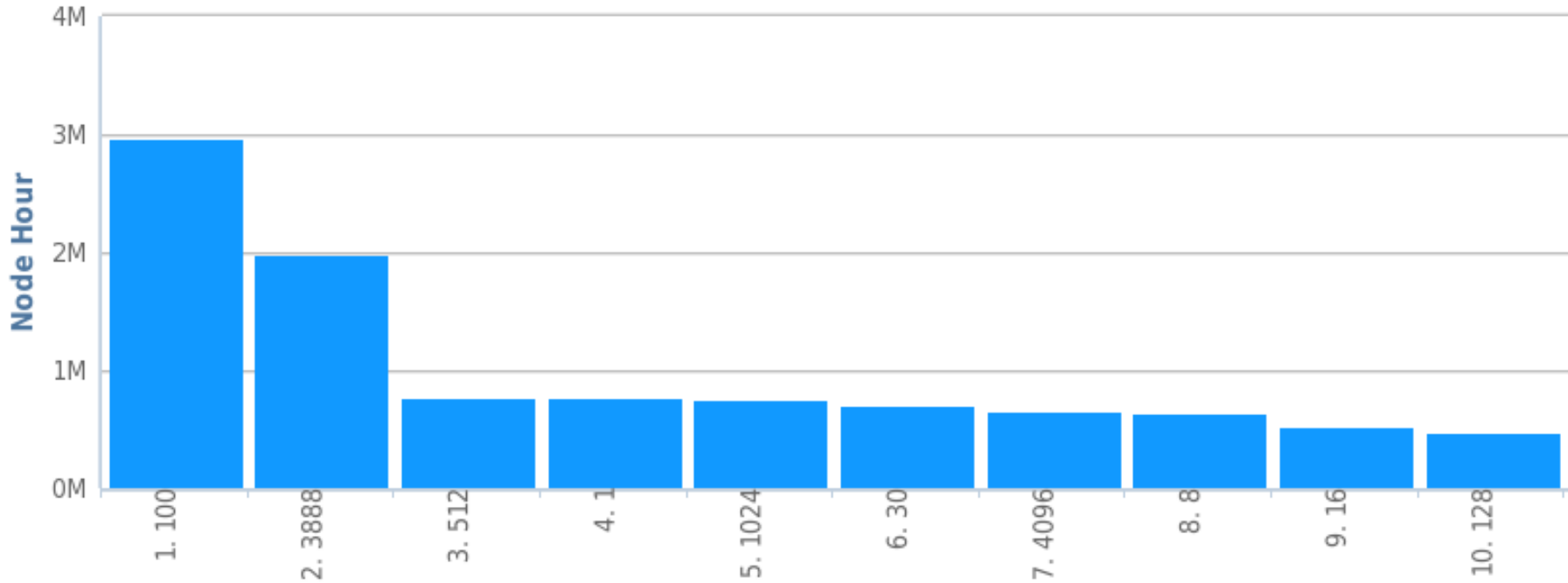


Blue Waters xk Frontlog/Backlog



Workload Details

Node Hours: Total: by Node Count




- Data combines XE and XK jobs.
- Since last BW User Call (Feb 20)
- Single node jobs contribute as do 3888, 1024 and 4,096 node jobs.

Blue Waters Weekly Webinar Series

- Starts Wednesday, March 1. Webinars will begin at 10 a.m. Central Time (UTC-6).
- “Getting I/O Done with Parallel HDF5 on Blue Waters” hosted by Gerd Heber, HDF Group, will take place March 29, 2017.
- 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
- 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