BLUE WATERS
SUSTAINED PETASCALE COMPUTING

Blue Waters User Monthly Teleconference

Agenda

- Evaluating Lync/Skype for Business.

- Changes and Recent Events

- Utilization and Usage

- Opportunities

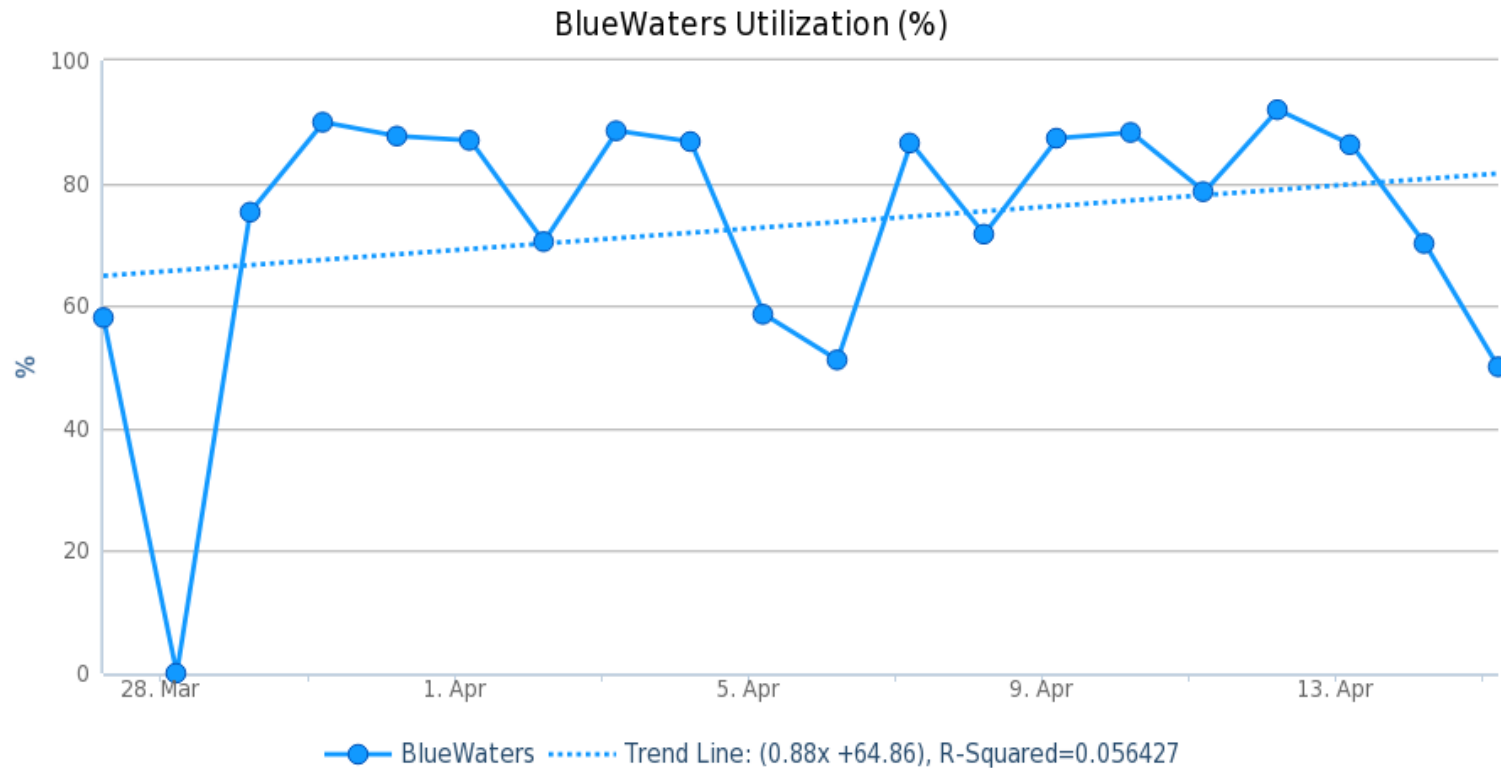- PUBLICATIONS!

Recent and Future Changes

- Programming Environment change (3/28).
    - Discovered some inconsistencies in update procedure.
    - Some package defaults pointed to older versions. (FIXED)
- Discounts
    - Two charge factor discontinued: backfill and wall clock accuracy (3/28).
    - Preemptee and flexible again distinct (4/14)
- Scheduler changes (PROPOSED)
    - two-node minimum
    - limit number of jobs running per user

Recent Events (since last User call)

- No outage events.

- Ongoing issue with login node stability
  - Some workloads result in hung processes, requiring node to be rebooted.
  - Working to isolate.

- Similar issue on compute nodes
  - Wider range of workloads.
  - Providing work-arounds.
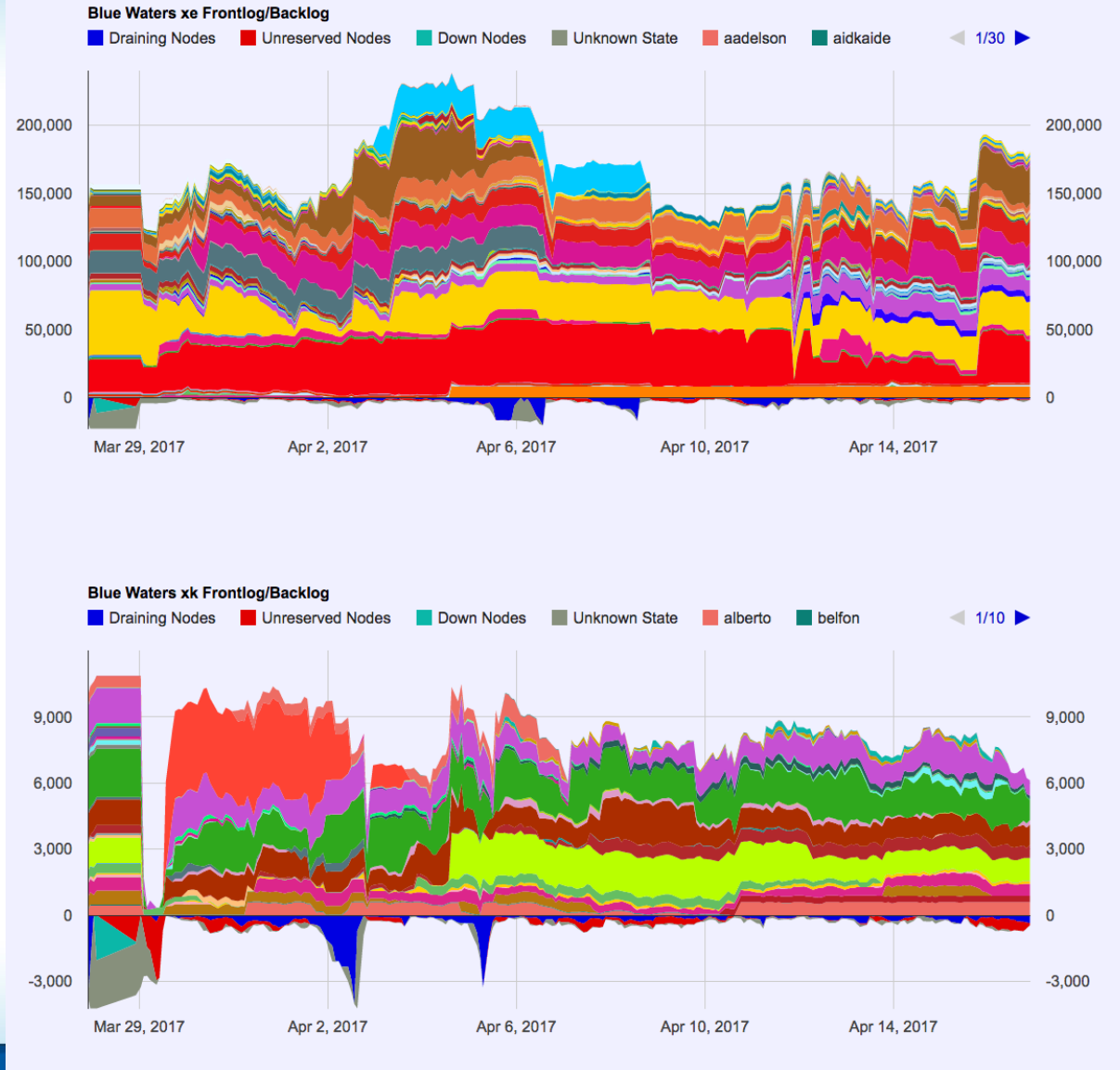
Usage, Utilization and other Items

- ## Utilization since last BW User Call (Mar 27)

BlueWaters Utilization (%)

Trend Line: (0.88x +64.86), R-Squared=0.056427

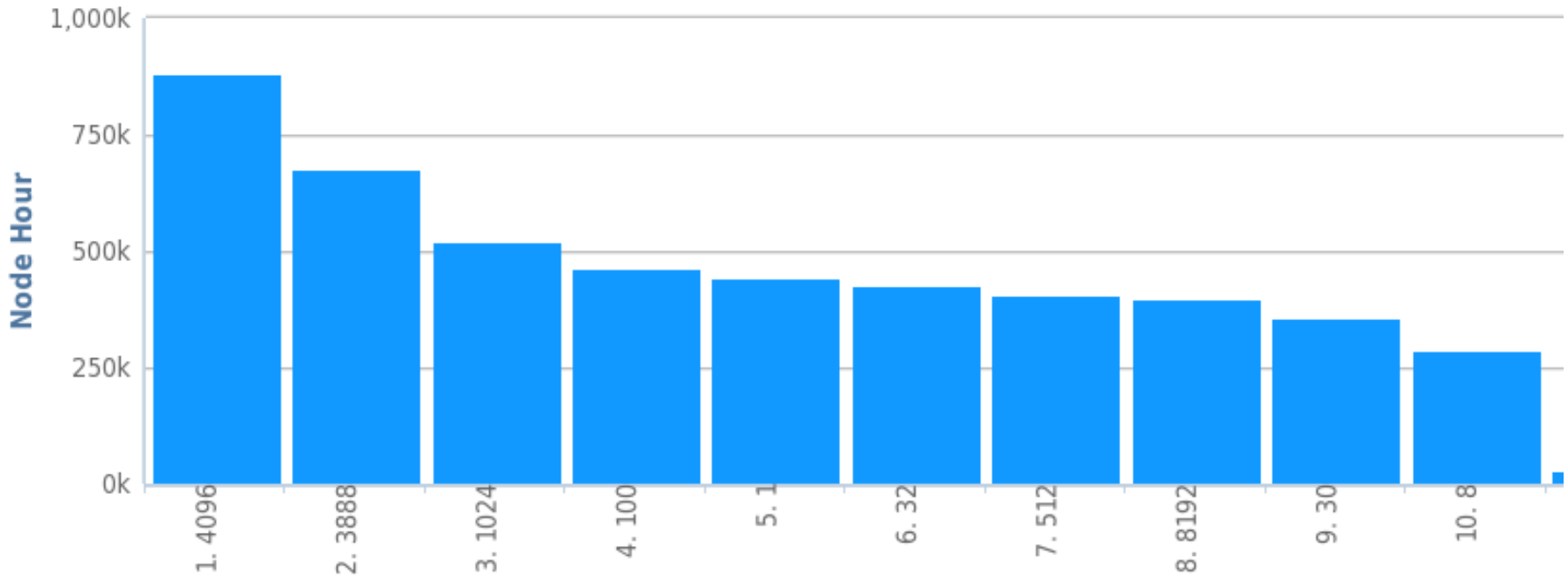2017-03-27 to 2017-04-15 Src: HPcDB. Powered by XDMoD/Highcharts

Backlog

- Since BW User Call 03/28
- 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.

Workload Details

Node Hours: Total: by Node Count

- Data combines XE and XK jobs.
- Since last BW User Call (Mar 27)
- Single node jobs drop to 5th place.

Blue Waters Weekly Webinar Series

- Started Wednesday, March 1. Webinars will begin at 10 a.m. Central Daylight Time.

- "Kepler Scientific Workflow System" will take place April 26th, 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), 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