Production /
Campus Infrastructures

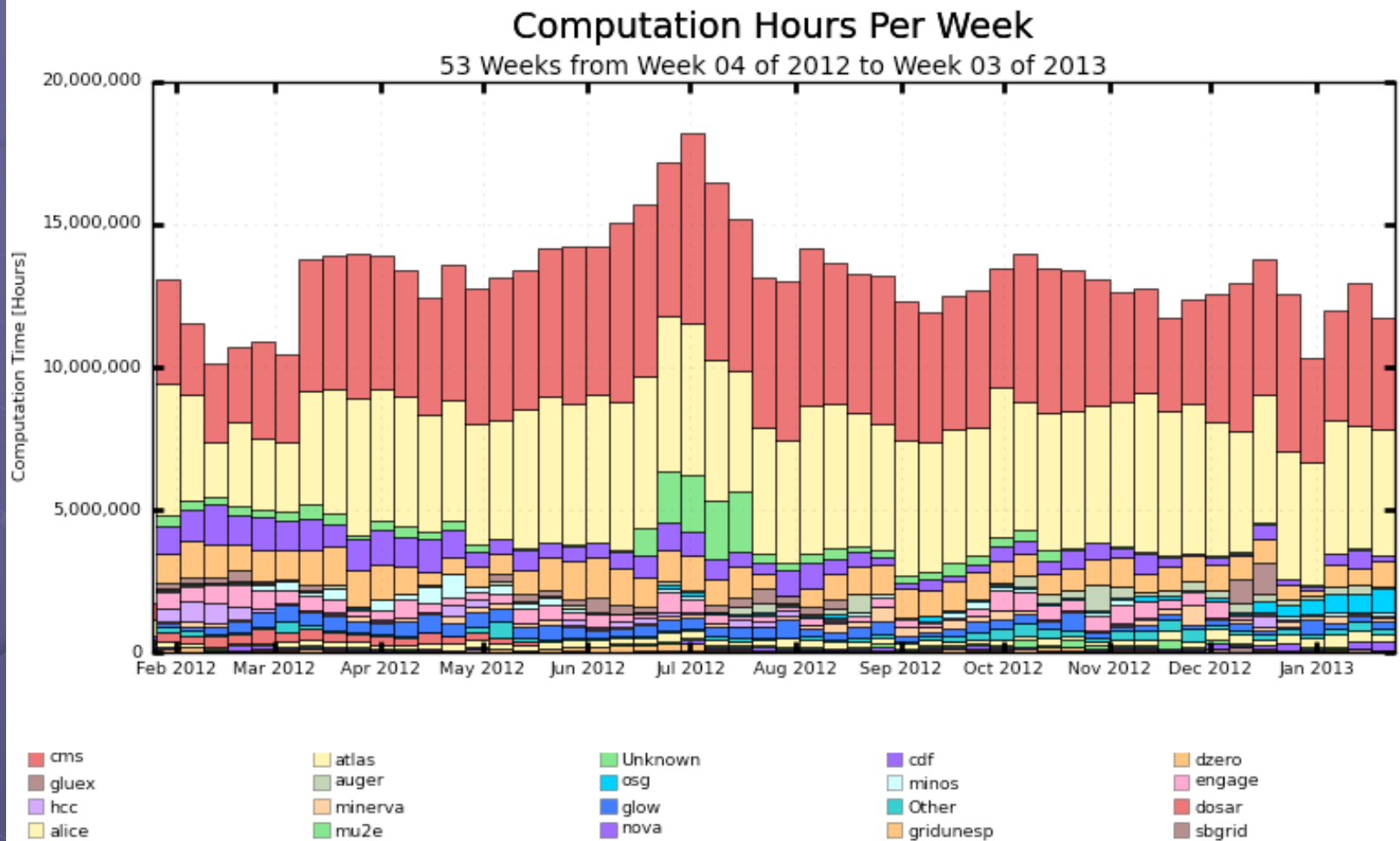Jan 23, 2012

Dan Fraser

Current Production Focus

- Transition to RPMs
  - 63(52) sites using RPM based installs
  - 39(49) sites still using Pacman install
  - Minor RPM work in process
    - Adding new packages (Squid)
  - Ongoing maintenance for RPMs
    - Fetch CRL
    - Java SDK 1.6 entering EOL
    - No more Blocker Bugs
- Focus now is on EOL for PACMAN
  - Will likely require a Client tarball for non-root installs

Overall Production

Computation Hours Per Week
53 Weeks from Week 04 of 2012 to Week 03 of 2013

Maximum: 18,175,680 Hours, Minimum: 1,711,776 Hours, Average: 12,995,556 Hours, Current: 11,718,458 Hours

Some Production Issues…

- Effort from the entire team
  - Java SDK 1.6 entering EOL
  - Root vulnerabilities in Condor
  - Procedure for handling CA releases w/o manual intervention
  - Critical bug in certain Condor configurations
  - GRAM-5 production issues settling down (memory leaks, scaling, etc.)
  - GUMS-Voms compatibility with CERN (progress ongoing)
  - …

Production Challenges

- EOL for PACMAN

- New monitoring tools suitable for a glide-in based system.

  - Started to work with Ashu to define and visualize new tools.

    - Need to kick the tires

Campus Grid Status

- Campus grid working in production:
  - Glow, Diagrid (All Condor campus grids)
  - Nebraska
  - University of Florida (not used much)
  - UC3 (testing the latest Campus Grid Release)
- Pre-Production/testing:
  - RENCI
  - Virginia Tech (Bio-tech)
    - http://gratiaweb.grid.iu.edu/gratia/xml/glidein_hours_bar_smry?probe=condor:dhcpseven237.bioinformatics.vt.edu
  - Virginia Tech (Belle, DayaBay)
  - FIU

Not the whole story

- The existing campus grids use Bosco (and its predecessor) more as middleware than a tool for end users.

- Currently focusing the team more on end users…
  - Usability
  - Bug Fixes
  - Plans for a marketing video to help describe what Bosco does
  - No new features

- Addition of Miha Ahronovitz is very helpful
  - Product Manager
  - Conducting User Interviews & Blogs

Launching the Campus Infrastructure Center

- Center where researchers can learn about and adopt campus technologies.
  - Led by Rob Gardner
- First meeting held in November
  - UC Santa Cruz
- First few monthly meetings held on specific Campus related topics
  - Attendance was good
- Planning for AHM in March

Campus Grids Project Plan

- https://twiki.grid.iu.edu/bin/view/CampusGrids/CampusInfrastructureProjectPlan

- Now released Bosco v1.1.1

- Fixing some important bugs prior to inviting Condor user list to try Bosco

- Working on Bosco v1.1.2

- Features needed for v1.2:
  - Accounting (integrated probe)
    - Plan is currently circulating

Campus Grid Issues

- Emerging concern is that Bosco, while making it easier to submit HTC jobs, does not yet meet the needs of the end users.
  - May require integration with a tool (e.g. Matlab, Galaxy)
  - This conclusion is in part due to Miha's efforts so far in user interviews.