OSG Production:
Status, Strategies, Future Plans

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OSG AHM

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Production Area (late last year)

- OSG Production
- Operations (Rob Quick)
- Software Release Manager (TBD)
  - Currently Tim C. is both S/W & Release
- Campus Program
  - Bosco (Focus on the "Researcher")
  - OSG CIC (Campus Infrastructure Community)
   - Rob G. is running with this one

Production Area (current)

- Production Manager (Rob Quick)
- Operations (Rob Quick)
- Software Release Manager (TBD)
  - Currently Tim C. is both S/W & Release
- Networking (Shawn McGee)
- Campus Program
  - Bosco (Focus on the "Researcher")
  - OSG CIC (Rob Q.)

Congrats Rob !   Welcome Shawn !

Overall Production

Computation Hours Per Week
53 Weeks from Week 11 of 2012 to Week 10 of 2013
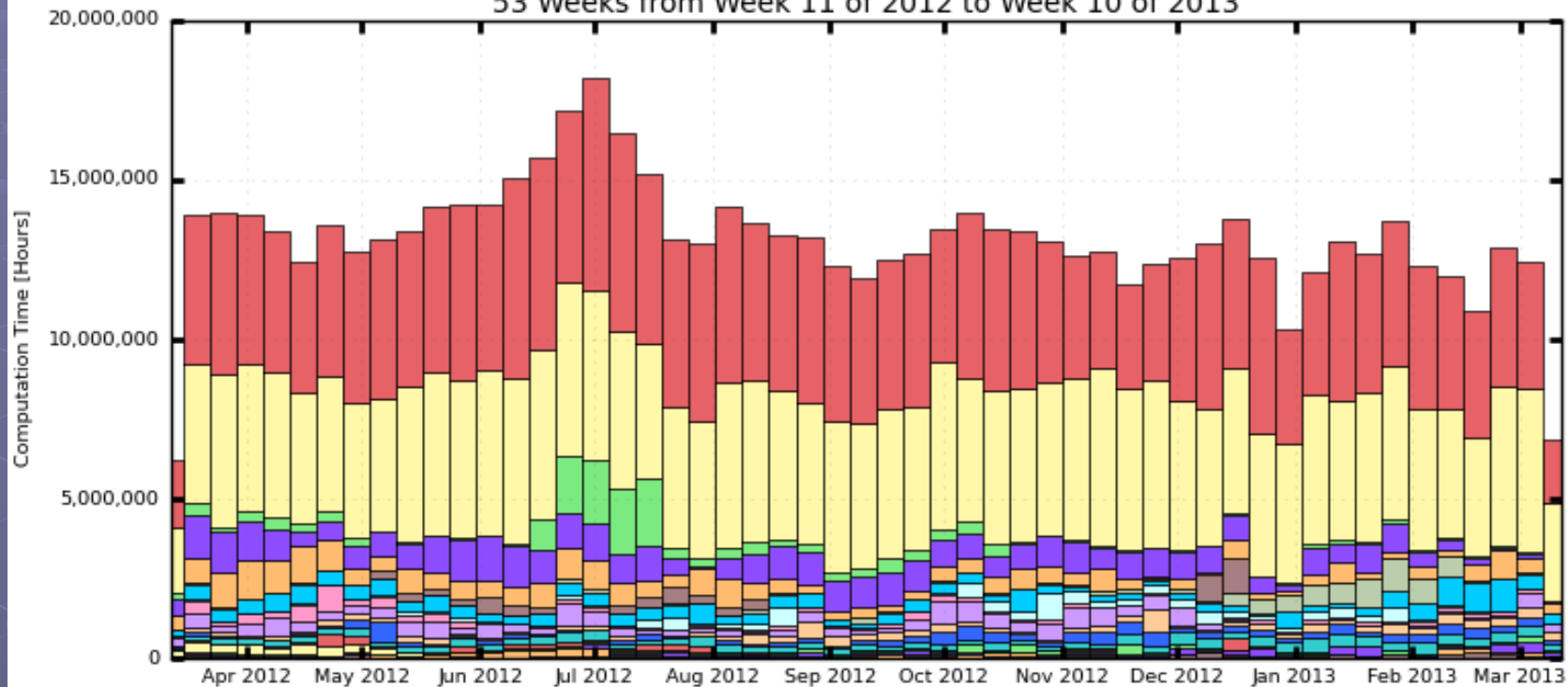
Maximum: 18,175,680 Hours, Minimum: 6,225,475 Hours, Average: 13,113,751 Hours, Current: 6,847,652 Hours

Production Focus

- Transition to RPMs
    - 67 sites using RPM based installs
    - 37 sites still using Pacman install
        - Frozen for over a year
    - Minor RPM work in process
        - Adding new packages (Squid)
        - Fetch CRL
    - No outstanding blocker bugs for RPM
- Focus now is on EOL for PACMAN (May 2013)
    - Transition to Java 7 (Java 6 EOL February 2013)
    - Enable a non-root client install

OSG Networking Area

- Focus on network monitoring
  - Originating as U.S. Atlas initiative to improve data transfer robustness
  - a matrix of perfSonar-based network monitoring system between sites
  - a dashboard to display information on throughput, latency etc
- A wealth of information can be harvested, correlated, etc
  - provides unprecedented insights into connectivity and needs of science community
  - integration of sites, user communities and applications allows novel approaches
  - For both research and to improve operational robustness
    - hugely interesting to networking providers, including Internet2, ESnet etc
      - one example how OSG can server as a perfect "test bed" for CS research
- This got a lot of traction worldwide
  - effort in WLCG to deploy perfSONAR(-PS) at all Tier-1 and Tier-2 sites

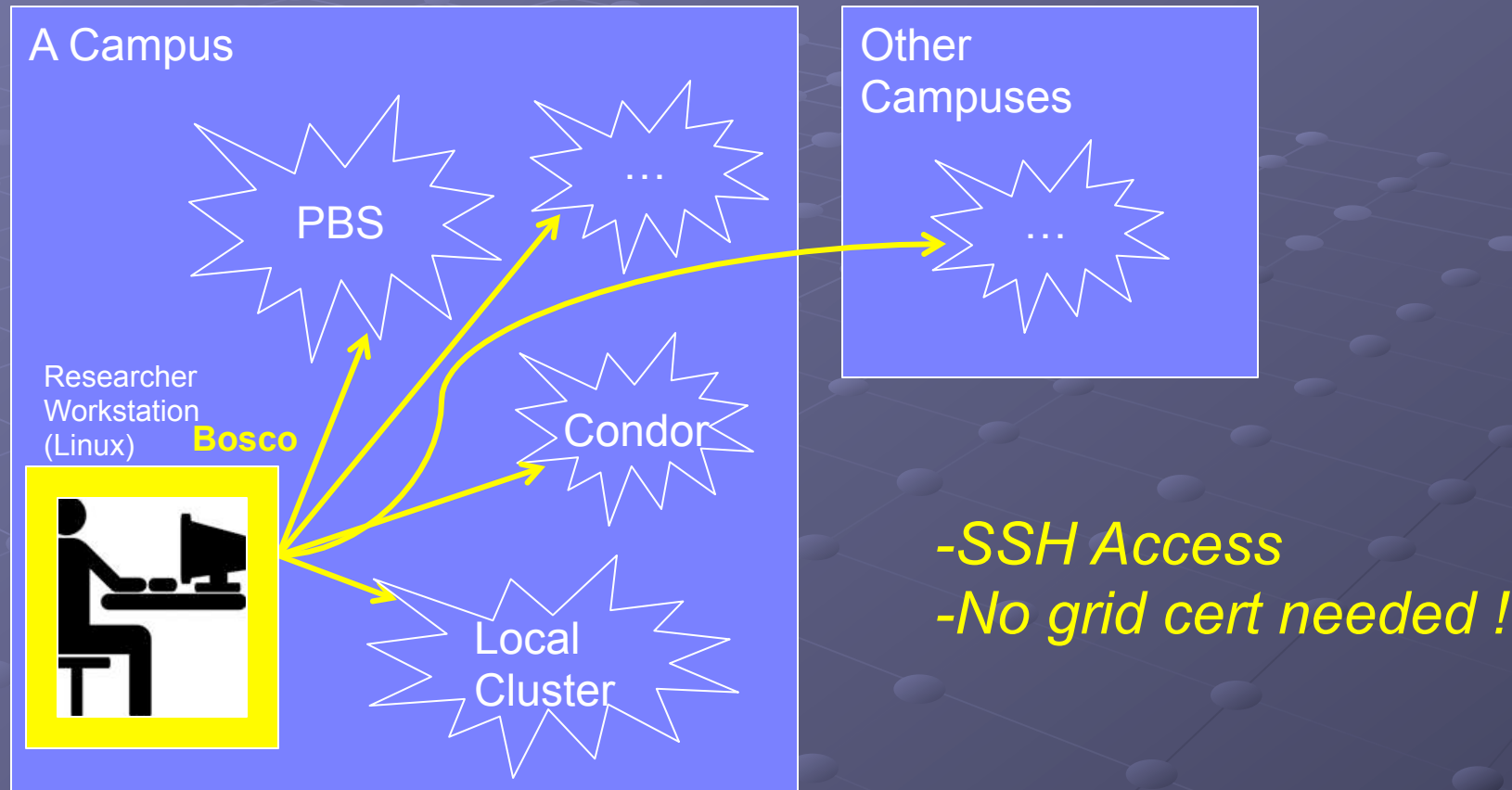# Key Initiatives in Network Area

- OSG modular dashboard service
  - work to make system more easily configurable and extendable
    - is now in GitHub
      - https://github.com/PerfModDash; 30000 lines code in place now
  - Information services (OIM/GOCDB) ready to host status for sites
- Documentation updates: network tools & troubleshooting
  - New draft "triage" document to point OSG users at
- Work on improving perfSONAR-PS toolkit for OSG
  - integration with OSG services and coupling to OSG Dashboard
  - advocating/supporting deployment at OSG sites begun. US ATLAS and US CMS sites pointed at OIM registration
- Defining what the OSG Network Service should look like
  - Operations sub-group needs to spin-up
  - working on improving Dashboard code, accessible and "runnable"
  - Should work with Operations and Software to make sure we agree on a "rough" vision for the service and corresponding timeline
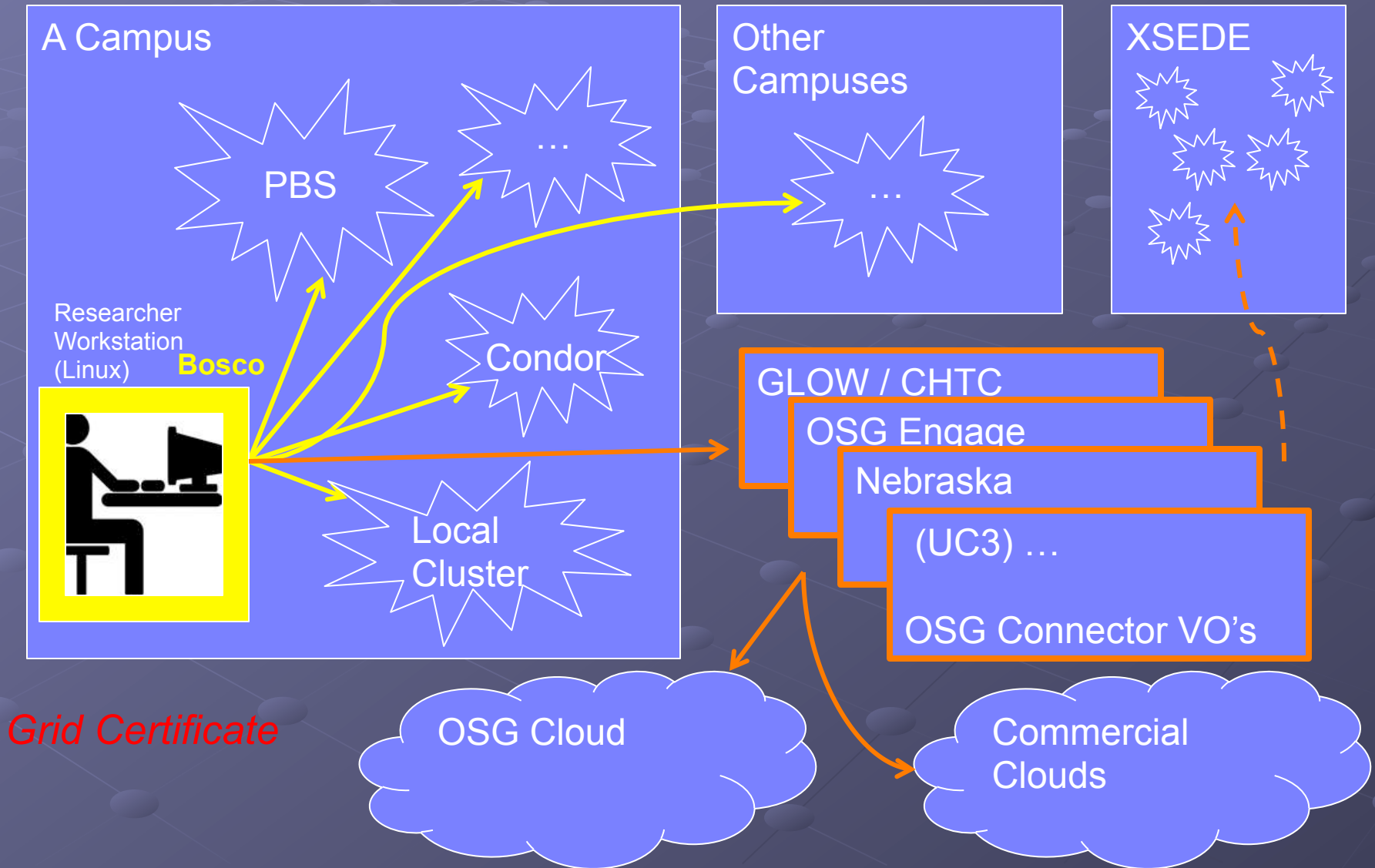
OSG Campus Program

- Focus on the Researcher (…or Artist)
  - What can we do to increase the throughput of your computing?
- Bosco (http://bosco.opensciencegrid.org)
  - Help ease the motivated researcher into a distributed environment
    - Distributed systems are not trivial
    - http://display.opensciencegrid.org
- Campus Infrastructure Community
  - Community building focal point
    - Rob Gardner

Bosco Extends the Researcher's Reach

But Wait! That's not all …

A Campus

PBS

...

Researcher
Workstation
(Linux)
Bosco

Condor

Local
Cluster

**Other
Campuses**

...

XSEDE

GLOW / CHTC

OSG Engage

Nebraska

(UC3) …

OSG Connector VO's

Grid Certificate

OSG Cloud

Commercial
Clouds

Bosco Plan (release ~quarterly)

- Current Version v1.1.2
  - Invitation sent out to Condor users mailing list
  - Previous Campus grids have been upgraded to Bosco
    - Nebraska, Virginia Tech
  - View on OSG Display
    - (http://display.opensciencegrid.org)
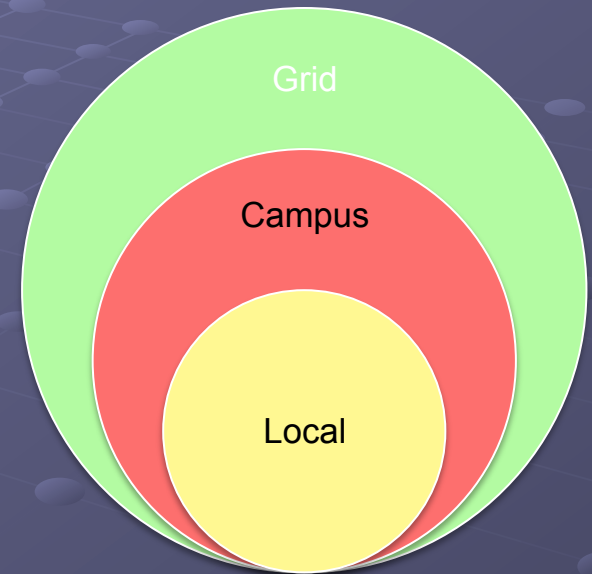- Working on v1.2 (April, 2013)
  - Focus on reliability, reducing annoyances
  - Scaling to 1000 submissions
- Start on v1.3 (May, 2013)
  - Gratia Accounting (integrated probe)
  - SLURM support
  - Features based on User Survey (TBD)

Campus HTC Infrastructure Direction

- Help the researcher use local HTC resources
  - Run on a local campus cluster
  - Run on several local clusters
    - Use local authentication credentials
- Use/share resources with a collaborator on another campus
- Access to the national cyberinfrastructure
  - OSG (and also XSEDE) resources

Submit Locally, Run Globally