NUG Teleconference
Dec. 2012

December 4, 2012
• System status update
• Edison update
• ERCAP / Allocations update
• Brief hello from new NERSC Director Sudip Dosanjh
• NUGEX elections
• Role of NUGEX members
• NUG face-to-face meeting in February
• Recap of HEP requirements meeting Nov. 27-28
  — FES March 19-20, 2013
System Status Update

• No Hopper outages since scheduled maintenance on Nov. 13

• Only 1 (2?) Carver (and friends) batch problem since 11/21
  – Latest software update greatly reduced problems

• NGF instability has been alleviated
  – OS upgrades on client systems
  – Completion of network upgrades

• NERSC is continuing to monitor situation
  – One minor Carver batch issue last night
Edison Update

• Edison Phase I has arrived!
• 664 nodes, 10K cores
• Delivered Nov. 27
• 4 compute cabinets installed and passed initial tests
• External network cabling in process
• 1 scratch file system (1.6 PB) is being configured

Early user access planned for Feb. 2013
1. Hand-picked small (~10) set of first users
2. Diverse set of ~30 applications
3. All NERSC users

Send requests for early time to ragerber@lbl.gov
ERCAP/Allocations for 2013

• Award letters scheduled for Dec. 14
• Process is on schedule
• 1.25 billion hours to be allocated
• We anticipate all 2013 time on Edison will be “free”
  – First early users on Phase I in Feb. 2013
  – Phase II planned for summer 2013
NUGEX Elections

• 22 candidates for 11 positions
• Election dates: ?
• Candidate statements needed. Send to Frank Tsung?
• 2011 sample ballot at

• Role of NUGEX members
  – What can we do to make you more active?
  – Auto invitations to your office’s requirements reviews
  – What NERSC services can we offer? (e.g., slides for your presentations?)
NUG Face-to-Face

- Oakland and Berkeley, CA
- Tue., Feb. 12: Business Meeting @ Oakland facility
  - Rename to make sound more inviting?
- Wed., Feb. 13: Training Day 1 @ Oakland
  - Focus on Edison & OpenMP
  - Target audience: intermediate to advanced
- Thu. Feb. 14: Training Day 2 @ Oakland
  - Getting started @NERSC: beginner
  - High Throughput Computing, TBD: beginner to intermediate
- Fri. Feb. 15: “Science Day” @ Berkeley Lab
  - Welcome keynote(s): Trends in HPC, NERSC roadmap/vision
  - Science keynotes: e.g. Climate? Cosmology? ??
  - 15-20 minute contributed talks (grad students/postdocs/whomever)
• Computing, storage, services requirements: target 2017
• 40 attendees
  – 19 scientists (“traditional” and “opportunity” users)
  – DOE Office of Science Associate Directors James Siegrist (HEP) and Barbara Helland (ASCR, acting)
  – 10 DOE program managers from HEP & ASCR
  – 3 NSF program managers
  – 3 NERSC staff
First-Draft High Level Findings

• Need for more computing cycles and fast-access storage

• Support for data-intensive science
  – Improvements to archival storage
  – Analytics (parallel, DBs, services, gateways etc.)
  – Sharing, curation (I like “stewardship”), provenance

• Support for High Throughput Computing

• Early access program for emerging architectures
  – Testbeds
  – Training and support; helping with “application readiness”
Preliminary HEP Usage and Requirements

HEP Usage at NERSC

Log Hours (Normalized to Franklin Cray XT4)

Year


HEP Usage  All NERSC
HEP Review: 2017  Linear(HEP Usage)  Linear(All NERSC)

2.08 X/year

15.7 B  34 B  86 B
9 B
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