

NYSGrid CI Days

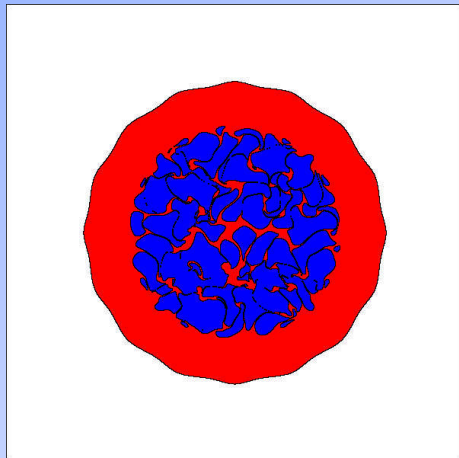
Status of NewYorkBlue

December 4, 2007

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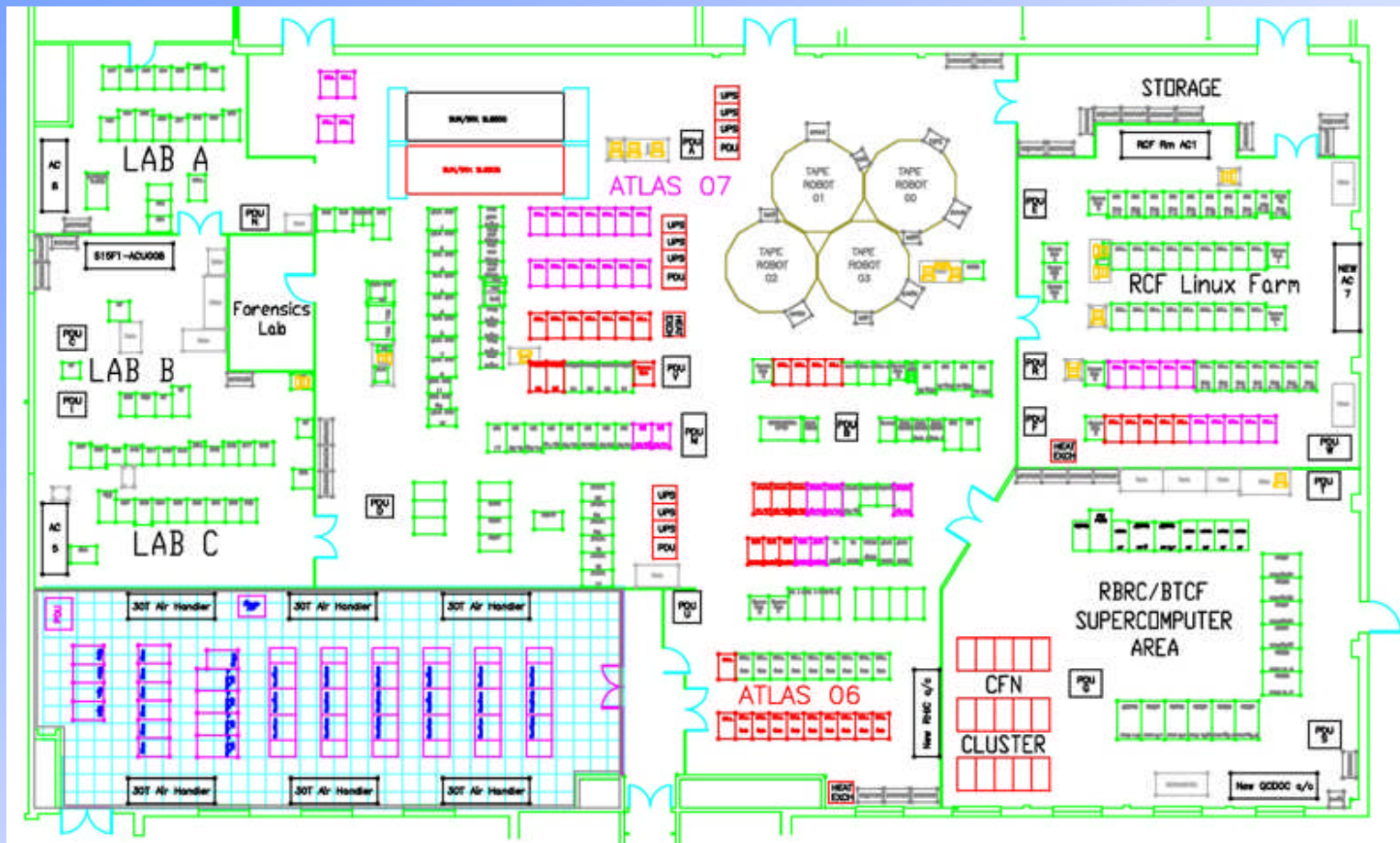
Brookhaven Science Associates
U.S. Department of Energy

BROOKHAVEN
NATIONAL LABORATORY

New York Blue

- 18 rack Blue Gene/L (103 teraflop/s)
- 1 GByte memory / node
- 2 rack Blue Gene/P (28 teraflop/s)
 - December 2007 delivery
- GPFS Storage System
- Force10 Switch
- 400 TB Disk
- 4 years support and maintenance

Floor Plan in ITD Building 515



Initial Operating Plan

- Allocations
 - Determined by Director / Allocation Committee
 - Based on peer review
 - Policy set by Advisory Committee
 - 40% SBU/BNL
 - 40% Other NYS
 - 20% Other
- No cost for non-proprietary
- Require BNL user agreement ala QCDOC, NSLS, CFN
- BNL guest appointment
- One time password

Allocation Strategy

- 100 teraflop/s is a lot!
- But – there are severe constraints
- With 50% Large Users, 50% Small
 - 25 users @ 2 teraflop/s
 - 10 @ SBU + BNL
 - 100 users @ 0.5 teraflop/s
 - fills machine
- Currently - 25 active users, maybe 6 large users (100K node-hours per week each or about 3% of the machine - 3tf/s)
- Usage stats indicate a > 70% cpu utilization
- No charge for disk storage nor I/O, but they are thin resources

BNL Contribution

- Keeping the machine running
- Developing accounting and allocation scheme to assure fair allocation of resources
- Adapting Load Leveler to 1) work and 2) mesh with the allocation scheme.
- (Hopefully) Improving L/L considerably
- (Hopefully) Providing alternative access (Grid) to Load Leveler that would permit remote job submission.
- www.bnl.gov/newyorkblue