Upgrade of LDAS Hardware for S1 Plan

- CCB in 2001 authorized spending $225k on prototype/near term clusters for sites before the final procurement phase
  - » Gradual ramp up to S1 through last half of last year, first half of this year dictated that we not spend entire CCB allocation at once
  - » We purchased 16 nodes each for LHO, LLO, MIT
  - » We now plan to purchase 96 nodes for LLO, LHO with the remaining funds
  - » Provides LDAS resources through S2
  - » Final large procurement will take place after S2, during 1Q2003
  - » Takes advantage of planned 4Q2002 release of 64 bit Intel architecture
    - – Ensures fastest possible configuration for LIGO Lab computing
    - – Allows a smaller cluster size for comparable or better perforamance

Upgrade of LDAS Hardware for S1 Details

- Previous clusters served well for the last several engineering runs
- We plan to redistribute these 1-year old resources in order to optimize the utility of the new purchases
  - » LLO cluster will move to MIT, doubling their cluster to 32 identical nodes
  - » LHO cluster is moved to CIT/Synchrotron, beginning the build up of the Caltech production system (not yet implemented)
  - » The new machines will be distributed either 48/48 or 64/32 between LHO and LLO
  - » Almost 2X faster than current clusters
  - » We want to explore space-saving rack mounted clusters (48 per 6' rack)
  - » 20% premium in price, still below our (self-imposed) not to exceed prices

Upgrade of LDAS Hardware for S1 Cost & Schedule

- 96 nodes @ 1.7k$/node = $163.2k
- 128 port switch for LHO = $40k
- 32 port switch for MIT = $10k
- Switches will come from LDAS main procurement because these can be the final products
- Procure ASAP, tune and deploy in time for S1