LSC Computing Committee Report

Albert Lazzarini
LSC Meeting
19 August 2002
LIGO Hanford Observatory

LSC Computing Committee

- Membership composed of representatives from LIGO Laboratory, the LSC Tier 2 Centers, and users

  - » W.Anderson (UTB, user)
  - » J. K. Blackburn (LIGO)
  - » P. Brady (UWM, Tier 2 Center representative)
  - » L. S. Finn (PSU, Tier 2 Center representative)
  - » A. Lazzarini (LIGO, Chair)
  - » E. Katsavounidis (LIGO)
  - » T. Nash (FNAL, user)
  - » *S. Koranda (UWM, ex-officio)*
  - » A. Wiseman (UWM, LSC Software Coordinator)

- Home page: http://www.ligo.caltech.edu/~lazz/LSC_Computing

LIGO-G020340-00-E

LSC Computing Committee
Progress update

- **User access to computing resources**
  - » New method to register for LDAS accounts
    - – Multiple user IDs, secure www site, semi-automated process
      https://www.ldas-sw.ligo.caltech.edu/passwordRequest/ldaspassword.cgi
  - » New method for UWM accounts
    - – Provides both LDAS and non-LDAS (Unix) user accounts for Tier 2 resources
    - – http://www.lsc-group.phys.uwm.edu/beowulf/medusa/user_manual/becoming_a_user.html
  - » Sub-group formed to study how to consolidate and unify the methods to a single user interface for all LSC resources.

LIGO-G020340-00-E

LSC Computing Committee
Progress update

- Development of a MOU between LIGO and the international Virtual Data Grid Laboratory (iVDGL) Collaboration
    - » iVDGL is the source of NSF funds for establishing a Tier 2 center at PSU, upgrading the existing center at UWM
    - » Provides FTE support (postdoctoral, students) for centers
    - » iVDGL wants to develop an MOU with each physics group receiving hardware from iVDGL
        - Governs procurement
        - Governs coordination, configuration of iVDGL centers
            - Access for iVDGL use (5% - 10%), experiments
            - Establishes commitment to participate in grid development
        - LIGO draft presently in review by LSC Computing Committee
            - We owe iVDGL a draft copy ASAP

LIGO-G020340-00-E

LSC Computing Committee
Progress update

- Buildup of PSU Tier 2 center ("green field" site)

- Goal: "Clone" LIGO Lab facility
  - » Minimize resources, sweat equity, spent local customizations
  - » Maximize inter-site operability, resources available for supporting LIGO/LSC analysis activities

- Pathfinder system
  - » Intel (procured)
    - – 8 single processoror nodes
    - – 4 dual processor nodes
  - » Sun (not procured)
    - – 2 280R or equiv. dual processor
    - – Procurement waiting on iVDGL/LIGO MoU

- Reality:
  - » iVDGL funding insufficient for full clone
  - » Compromise:
    cost vs. complete h/w compatibility
  - » Compare:
    - – Intel vs. Sun ldas s/w for production
    - – Fiber channel vs. SCSI
    - – Single vs. dual processor nodes

LIGO-G020340-00-E

LSC Computing Committee
Progress update

- Coordination of an LSC consortium proposal to NSF ITR 2003 grant opportunity
  - » Plan is to develop a proposal representing Tier 2 centers and LIGO Lab.
  - » Request will be for FTE support to provide greater user support
    - – Help desk
    - – More user accounts for UWM, PSU
  - » Strategy:
    - – GriPhyN (ITR2000) provides funds for CS and applications R&D;
    - – iVDGL (ITR2001) provides funds for Tier 2 deployment, application development & porting
    - – ITR2003 would provide funds for personnel to enable the scientific utilization of the LSC Tier 2 centers to conduct the analysis of the S1, S2, S3 data.

LIGO-G020340-00-E

LSC Computing Committee
Progress update

- **LIGO Data Distribution and Access Plan**
  - » In process of developing a plan for the collaboration to address:
    - How hierarchical data levels discussed in the Data Analysis White Paper will be created, managed
      - Configuration management, control of data sets
    - Data access mechanisms
      - Security, authentication mechanisms
        - » Will be adopted from Grid Projects
    - Data distribution and flow:
      - from Sites
      - ->Tier 1 (Caltech)
      - -> Tier 2 (UWM, PSU, MIT)
      - -> Tier 3 (individual university group resources)