ATLAS Computing @ RZG

Status

Stefan Kluth, 04.07.05

Operation: hardware

- Repeated disk failures in fileservers

  - about 25% now (Maxtor 7Y250M)

- Suppliers actively investigate the problem

  - Maxtor engineer diagnosed overheating

  - CPI (supplier of system house) investigates disks and RAID system

  - Arranged to test new Maxtor disks in one system at RZG (still has to happen)

- Still plan to increase disk capacity this year

Operation: hardware

- After thunderstorm LAN switch broken

- replaced with better product

  - HP ProCurve 3400cl 48 port (3590,34 Euro)

  - 136 Gb/s total switching capacity

  - Upgrade for 10(20) Gb/s uplink possible

- Connections

  - 4 trunked ports per IBM Chassis

  - 1 port per fileserver

- Now have room for expansion of LAN

Operation: hardware

- Additional RAM ordered

  - 56 x 1GB IBM modules

  - limited tender (six companies)

  - 11.424,00 Euro with update GmbH

- Installation

  - 28 nodes with 4 GB or 56 nodes with 3 GB?

Operation: SGE

- New version: SGE N1 6.0u4
  - solves various issues

- New batch queue management
  - functional shares 10/30/30/30 for users/ATLAS/MAGIC/GRID
  - unused shares distributed to active users
  - much more flexible and efficient
  - response time of system given by typical job duration (several hours)

Operation: accounting

- "Discovered" need to account for job I/O

  - LAN and fileserver I/O load

  - hard disk duty cycles

  - fair sharing of resources

  - CPU time and RAM consumption already monitored

- Investigate BSD accounting in Linux

  - will be turned on in next kernel upgrade

LCG @ MPI/RZG

- almost ready

- "we" (FZK, RZG) are fixing small bugs

- expect tests this week with MAGIC

- ATLAS tests after MAGIC works

- Still plan to be on Grid for FZK school and DC3

Summary

- Follow-up of hard disk failures ongoing

- New LAN switch

- Additional 56 GB RAM ordered

- New SGE and better queue management

- Study job I/O accounting (new kernel)

- (Slow) progress with LCG