Compute Facility Group: Report to ATUC
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Shaun W Amy

<Shaun.Amy@CSIRO.AU>

CSIRO Australia Telescope

National Facility

Who are We?

- Formed in October 2006.
- Separation of infrastructure/support area and scientific software development.
- The Compute Facility Group (CFG) is:
  - Shaun Amy (Marsfield)
  - Vince McIntyre (Marsfield)
  - Brett Lennon (Narrabri)
  - Gina Spratt (Parkes)
- We all have other roles and responsibilities.

What do we do?

- Maintain and develop the infrastructure necessarily for observing, data reduction and general computing.
- Provide support to visitors, students and ATNF staff.
- Provide "consulting" services to ATNF development and engineering groups as needed.
- Liaise with CSIRO IM&T.
- Procurement.
- Take an ATNF-wide view of computing and develop a coordinated approach across the four sites (+ MIRA).

Updates since last meeting

- Visits to Narrabri and Parkes to assess current state of computing infrastructure and begin planning for a more "integrated" approach.
- Marsfield Central Computer Room:
  - removal of storage compactus (including a lot of obsolete equipment and 9-track tapes),
  - storage area setup in adjacent room (with ICT Centre),
  - major upgrade of air conditioning.
- Additional storage added at Marsfield:
  - more arrays,
  - fibre channel switch.
- Replacement for "phoenix" commissioned.
- Kernel upgrades for "draco" and "hydra" to allow the full 4GB of RAM to be addressed (32-bit operating system).
- Upgrades to network equipment (with IM&T) at the observatories.
- Relocation of northern workstation room (to room 82).
- Real e-VLBI using the 1Gbit/s networks and the Swinburne cluster at Parkes for correlation.

Upcoming developments

- Replacement for "zephir" at Narrabri.
- Replacement for "athena" at Marsfield.
- New "offline" Linux server + storage for Parkes.
- Small cluster for MIRANdA development.
- Additional 1Gbit/s links between the ATNF observatories:
  - Second Narrabri-Sydney link
  - Direct Narrabri-Mopra link
  - Direct Narrabri-Parkes link
- Video conference units for Narrabri and Parkes.
- EXPReS demonstration to Europe.

Issues

- Exabyte drives to be retired on 1 July 2007.
- Storage for surveys and archives.
- Rationalisation of WIKIs.
- MIRIAD development and migration to 64-bit operating systems.
- CSIRO IM&T "Foundation Programme".
- CSIRO IM&T proposed changes to the wireless network.