



Providing Australian researchers with world-class, high-end computing services

National Computational Infrastructure: an overview

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The National Computational Infrastructure Project is an initiative of the Australian Government being conducted as part of the National Collaborative Research Infrastructure Strategy. The Project is hosted by The Australian National University.



- Goal: To make a real difference to the outcomes and impact of Australian science
- Programs: Operations, Outreach, Planning/Policy/Access
- National Facility
 - Australia's peak research supercomputing facility
 - Present: SGI Altix 3700Bx2 (about 15 Tflops, 21,000 SPEC, 2005-09)
 - New peak facility
 - Joint tender: ANU / Bureau of Meteorology (interoperable systems)
 - Performance increase of 10x over current facilities
 - Installation 2009-10
 - Transition system — SGI Altix ICE (1264 cores)
 - Provides much needed cycles from Nov 2008 / 60% extra throughput
 - Development system for next-gen NF

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- Other NCI programs
 - Specialised Facilities
 - Computational Tools and Techniques
- Outreach
 - Working with major research communities (e.g., climate / ESS)
 - Seeking to increase co-investment in high-end computing
- Access
 - Merit and Priority Access — MAS processes being overhauled
 - Partner access — partners acquire a dedicate share
- Governance:
 - Steering C'ttee: ANU, CSIRO, BoM, GA, research intensive universities
 - Strong partner co-investment (\$non-Govt > \$Govt) — shares model
 - Evolving national planning agenda for high-end computing
- Future issues
 - Access to petascale computing, cash flow, sustainability, ...
 - National infrastructure: machine room, data infrastructure, ...

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