



AUSTRALIAN PARTNERSHIP FOR ADVANCED COMPUTING

MEDIA RELEASE

SUCCESSFUL CONCLUSION FOR APAC PARTNERSHIP

Canberra, 4 July 2007: The highly successful APAC partnership involving six State-based partners as well as ANU and CSIRO will transition to new arrangements later this year after serving the Australian research community with high-performance computing and grid services.

The Australian Partnership for Advanced Computing (APAC) was established in 1998 under the Systemic Infrastructure Initiative as part of the Australian Government's *Backing Australia's Ability* programme, administered through the Department of Education, Science and Training (DEST). It has been hosted by The Australian National University (ANU) and governed by the APAC Board.'

At its recent meeting, the Board agreed to recommend the wind-down of the partnership as part of a transition to the plan being implemented for the Platforms for Collaboration (Pfc) capability of the National Collaborative Research Infrastructure Strategy (NCRIS). The 4-year plan for this capability was recently accepted by the NCRIS Committee (see www.pfc.org.au for details).

The Board supports the NCRIS Pfc plan as a way of building on the APAC achievements and on the skills base that has been developed by APAC programs in high-performance computing, grid services and outreach.

Professor John Zillman, Chair of the APAC Board, said "APAC is very proud of its outstanding achievements. Australian researchers now have access to a world-class peak computing service within a national grid infrastructure. And Australia now has a significant skills base to support users of eResearch infrastructure and services".

An external review of APAC commissioned by the Federal Government and chaired by Professor Lance Twomey AM (former Vice-Chancellor of Curtin University of Technology) reported in October 2006 that the performance of APAC in the six years of its existence was exemplary and was so recognised by the Australian and international research communities.

Professor Zillman said that APAC had received outstanding support from the Australian Government through the Department of Education, Science and Training. The initial support in 1998 catalysed the establishment of APAC and its continuing support had enabled APAC to lay the foundation for a long-term commitment to the national advanced computing and grid infrastructure for Australian research.

He also complimented The Australian National University on its role as host institution for APAC and expressed support for its participation in the new arrangements.

Professor Zillman paid tribute to Professor John O'Callaghan for his strong leadership and for the collaborative spirit that he has fostered as Executive Director since 1999. Professor O'Callaghan completed his term at the end of June but will assist APAC during the transition to the new arrangements.

The APAC Board has commissioned a report on the contributions and achievements of APAC and plans to publish it in October 2007.

Contacts:

Professor John Zillman, Chair of the APAC Board, 03 9669 4250 / 0414 362 201

Professor Robin Stanton, The Australian National University, 02 6125 2504

Professor John O'Callaghan, APAC, 0419 413 148

THE ACHIEVEMENTS OF APAC 1998-2007

The Australian Partnership for Advanced Computing (APAC) was initiated in 1998 by the Australian Government to strengthen the advanced computing capabilities in Australia.

Since that time, APAC has led the planning and development of the national advanced computing and grid infrastructure for Australia's research and innovation system.

Its vision has been for Australian research teams to have seamless access to distributed computing and data management facilities as part of the global research infrastructure.

APAC has made a substantial contribution to the development of skills to support research teams and organisations. The number of staff at the APAC partners has doubled in the past 3 years and is currently around 170.

Since 2004, APAC has invested over \$73m in the development of eResearch infrastructure and the delivery of eResearch services to Australian researchers. This is a substantial leverage on the Australian Government contribution of \$31.8m.

As a result, Australian researchers have access to an advanced computing and grid infrastructure whose capabilities are commensurate with those in many other leading countries.

APAC Partnership

The partnership was formally established in June 2000 and consists of 8 organisations involving 30 universities.

The APAC partners are:

- Australian Centre for Advanced Computing and Communications (ac3)
- CSIRO
- iVEC, The Hub of Advanced Computing in Western Australia
- Queensland Cyber Infrastructure Foundation (QCIF)
- South Australian Partnership for Advanced Computing (SAPAC)
- The Australian National University (ANU)
- The Tasmanian Partnership for Advanced Computing (TPAC)
- Victorian Partnership for Advanced Computing (VPAC)

The partners have played a vital role in developing Australia's capability in advanced computing, information and grid infrastructure. They provide operational advanced computing services to their users and are involved in research, development, education, training and outreach activities.

The State-based partners have received significant support from higher education institutions as well as from State Governments. The national APAC partnership has played a central role in enabling each of these partners to consolidate its roles and responsibilities.

APAC National Facility

APAC established the APAC National Facility in 2001 to provide a world-class peak computing facility for Australian researchers in higher education institutions and government research organisations.

Its peak system is an SGI Altix 3700 cluster with 1928 processors - ranked number 107 in the current Top500 list of the world's most powerful computers.

The facility also has a large scale data system which houses over 150 terabytes of data, including 16 research data collections in the areas of astronomy, linguistics, humanities, social sciences, high-energy physics, terrestrial ecosystems and earth systems

The National Facility provides services to over 900 researchers in 25 Universities and CSIRO. Many of these researchers have indicated that the National Facility is essential for their research and allows them to undertake research challenges not otherwise possible. It has underpinned their research grants and contracts, research publications and postgraduate studies.

APAC National Grid

In 2004, APAC broadened its role to provide an advanced computing and grid infrastructure for Australian researchers.

The development of the APAC National Grid enabled researchers to access distributed computation and data management facilities as a single virtual system. It has also allowed more effective access to eResearch facilities involving computers, data management systems, instruments and sensors as well as visualisation and group communication services.

Research teams using the National Grid have indicated the importance of grid services to their broader communities in astronomy, earth systems, chemistry, high-energy physics, bioinformatics and geosciences. Their use has underpinned the plans for the NCRIS capability areas and enhanced national and international collaboration.

An external review of the APAC Grid program in October 2005 found that the design for the National Grid was innovative, there was a strong commitment to the program and the core group of experts were world-class.

APAC Outreach

APAC has contributed to the development of skills and the uptake of advanced computing and grid services through a range of outreach activities. In addition, the partners with State Government funds have extensive industrial programs and support industry through outreach activities.

Researchers and students have benefited from APAC Summer Schools, Internships, Forums, Conferences and workshops.

As a result of the APAC courseware projects, the research community now has access to a substantial set of on-line materials in advanced computing and grid applications.

APAC Governance

APAC has been governed by a Board consisting of one representative from each of the partners, two independent members (including the Chair) and the APAC Executive Director (Professor John O'Callaghan FTSE).

The inaugural Chair of the Board was Professor David Beanland AO FTSE, former Vice-Chancellor of RMIT University. The Chair since September 2005 has been Professor John Zillman AO FAA FTSE, former Director of the Bureau of Meteorology and former President of the Australian Academy of Technological Sciences and Engineering.

The other current members of the Board are

- Dr Michael Barber FAA, CSIRO (CSIRO representative)
- Professor Lindsay Botten, University of Technology Sydney (ac3 representative)
- Professor Allan Canty FRACI FAA, University of Tasmania (TPAC representative)
- Professor Tom Cochrane, Queensland University of Technology (QCIF representative)
- Mr Robin Eckermann, Principal, Eckermann & Associates (independent member)
- Professor Chris Marlin, Flinders University (SAPAC representative)
- Professor Doug McEachern FASSA, University of Western Australia (iVEC representative)
- Professor Robin Stanton FTSE, The Australian National University (ANU representative)
- Professor Iain Wallace FASSA, Chair, VPAC Board (VPAC representative)