

AUSTRALIAN E-RESEARCH INFRASTRUCTURE COUNCIL (AeRIC)

AeRIC MEETING – 20 November 2007

AGENDA ITEM 5: AUSTRALIAN RESEARCH AND EDUCATION NETWORK

Purpose

- To update AeRIC on the establishment of the expert group to advise AeRIC, DEST and AARNet Pty Ltd (APL) on the network needs of NCRIS researchers.

Issue

At its meeting on 31 August 2007, AeRIC endorsed DEST's proposal to establish an expert advisory group under AeRIC to provide advice to APL and DEST on the needs of the research community in relation to networks, and in particular for the NCRIS community. The Expert Advisory Group on the Australian Research and Education Network (AREN) was subsequently formed, and its first meeting was held on 25 October 2007 in Canberra.

Discussion by the members at this first meeting indicated a high level of engagement and interest in the future of the AREN, the sustainability of the network, and the ways in which new stakeholders - not currently members or customers of AARNet Pty Ltd - could be provided for. The Group recognised the significant challenges in resolving the issues of charging. The Group expressed a desire to have clarification of terms used in discussion and to gain a more detailed understanding of the costs and revenue streams for the network. The Group also agreed to extend the timeframe for its work till the end of March 2008. A copy of the draft Minutes are at Attachment A.

A membership list and draft Terms of Reference for the Group were circulated to AeRIC in October 2007. These are included at Attachment B.

Action

- That AeRIC note the establishment of the Expert Advisory Group on AREN, and the minutes of its first meeting on 25 October 2007.

AeRIC Secretariat
November 2007

**EXPERT ADVISORY GROUP ON THE AUSTRALIAN RESEARCH AND EDUCATION
NETWORK (AREN)**

**DRAFT RECORD OF MEETING
25 OCTOBER 2007 (Canberra)**

Attendees

Group

Dr Evan Arthur (Chair), Professor Alan Robson (by telephone), Mr John Parry, Ms Mary Fleming, Mr Alan McMeekin (by video), Dr Neville Smith, Dr Dennis Bittisnich, Dr Lesley Wyborn (for Mr Glenn Ashe), Dr Glenn Withers AO, Dr Rhys Francis and Ms Anne-Marie Lansdown.

DEST

Ms Clare McLaughlin and Ms Cheryl Kut.

Apologies

Mr Mike Whelan
Professor Barney Glover

Agenda Items

Agenda Item 1 – Welcome

The Chair opened the meeting at 10.00 am welcoming members.

Agenda Item 2 – Overview

The Chair provided an overview to members of the critical issues facing AREN. These issues stemmed from both the historical development of AREN and the future challenges for the network. Research activities had increasingly required interaction between researchers in ways that could not be satisfied by the commercial marketplace. From a DEST perspective, the National Collaborative Research Infrastructure Strategy (NCRIS) had been a key development in this respect.

The Chair invited Dr Rhys Francis to address the Group on the needs of NCRIS. Dr Francis noted that his consultations for the NCRIS Platforms for Collaboration capability suggested that researchers' differing needs required different approaches and differentiated network services. Beyond general access and services, it was questionable whether a "one size fits all" model would suit all AREN users.

Members noted the need for clearer definitions around the AREN and its constituent parts. Members also provided views on their organisation's or constituency's research and education network needs. Key points raised were that costs could constrain an organisation's approach to networks; that it was not always apparent how using AREN would differ to going out to the market; that while cost might be

an issue, AREN's advantage was its agility; and that there was a need to influence institutional policies to appropriately reflect the charging to institutions by AARNet Pty Ltd, and not constrain network use.

Actions

- Nil.

Agenda Item 3 – Outcomes sought, Responsibilities and Mode of Operation

The Chair asked the Group to provide their views on the paper for Agenda Item 3, which included the Terms of Reference.

The Terms of Reference were accepted by the Group.

The Chair noted that the Group's work would only be possible if key players felt they could provide the necessary information within a confidential environment. The Group agreed that it would keep matters confidential unless advised otherwise.

Members asked if they would need to formally provide statements of their conflicts of interest. The Chair responded that members would be asked to declare their conflicts of interest formally. Mr McMeekin noted that he was a director of VERNet.

Actions

- DEST to formally seek statements of conflicts of interest from members.
- DEST to finalise confidentiality arrangements.

Agenda Item 4 – Report on AREN state of play

Ms Lansdown spoke to the sub-item on definitions. She noted that it was important for members to clearly understand the terms that would be used in discussion, for example AARNet or AARNet3. Ms Lansdown proposed that DEST would work with AARNet Pty Ltd to create a list of terms and agreed definitions. These would also include charging terms, such as 'on-net'. Ms Lansdown noted that terms were sometimes used casually, causing confusion and misunderstanding, and a list of definitions would also help encourage all concerned to use the right terminology, particularly in public statements. Dr Francis also noted that terms such as 'commercial traffic' were important to clarify.

Members also discussed the need to define terms in a way that the general research community would understand and to draw from international definitions if these exist and are appropriate.

The Chair introduced the sub-item on AREN operations, revenue, costs and charging models by noting that it would not be easy to disentangle the components of costs and the layers of understanding around fixed and other costs. The meanings of on-net and off-net traffic, for example, and the nature of Australian network traffic made this a challenge. Professor Robson agreed that the price and cost basis for the current situation needed to be unravelled and more clarity on how charges were levied within universities could perhaps be found through a survey done through Universities Australia. The Chair noted he would follow up this matter with Dr Withers.

Ms Fleming noted that she was happy to provide information required by the Group, particularly if linked to specific data needs. She noted that AARNet Pty Ltd had a good understanding of costs. The AARNet Charging sub-committee had spent some time considering consequences if AARNet Pty Ltd did not sell commodity and what monies it would save. Modelling had been done and fed into the charging committee's deliberations. Details of these were on the slides she would present to the Group.

Other comments were that objectives and principles would be useful in progressing a view on charging. It was also important to consider a three to five year view. In this context, it was noted that the notion of a 10 gigabyte backbone seemed extravagant when first conceived through the AREN Advisory Committee (ARENAC) process. Some understanding of what was saturating and using the bandwidth was also important. Dr Francis noted that unbundling costs and offerings seemed too simple an approach and that differentiating services for different needs was important. However, the current bundling of costs did not allow for differentiation of services and it was important to get past the mandatory packaging of on-net and off-net.

Ms Fleming presented her slides to the Group. During this presentation, questions and comments were raised on the object of peering; third parties' use and access to member benefits; the growth of on-net traffic versus off-net traffic; the AARNet Pty Ltd 2008 charging model; and gaps in the future network.

Actions

- DEST to work with AARNet Pty Ltd to develop a set of definitions for use by the Group.
- AARNet Pty Ltd to provide an agreed description of the current situation of price, cost and revenue elements for the next meeting. The Chair noted it would be useful to understand third party use in more detail.
- Dr Francis to provide a description to increase understanding of the NCRIS network needs.
- DEST to discuss with Dr Withers ways of better understanding the internal charging models for universities, including the extent to which universities were charging third parties.

Agenda Item 5 - Timeframe

The Chair noted that it would be desirable for the timeframe for the Group's work to be extended sometime into 2008.

The Group agreed to extend the timeframe of its work till end of March 2008.

Actions

- DEST to revise Terms of Reference to reflect the extended timeframe.

Agenda Item 6 – Discussion to identify information needed by the Group

The Chair opened this item. Ms Lansdown summarised the type of information needed by the Group and revised the set of information the Group had agreed to in this meeting. This included:

- Better understanding of costs and revenue for AREN;
- Better understanding of NCRIS needs;
- Better understanding of terms and definitions;
- Information on institutions' internal charging models;

- Third party use of AREN.

Actions

- DEST to coordinate seeking the set of information agreed to by the Group.

Agenda Item 7 – Other business

Ms Wyborn noted that a definition of the scope of the government ‘research community’ was needed. The Chair noted this would be useful and suggested that Geoscience Australia could work with the Department of Agriculture, Fisheries and Forestry (DAFF) and the Australian Government Information Management Office (AGIMO) about this in the first instance.

It was suggested that principles for charging could be a subject for discussion at the next meeting.

It was agreed that Mr McMeekin could advise the Council of Australian University Directors (CAUDIT) of the Group’s work.

Dr Withers asked if a copy of Ms Fleming’s slides could be circulated to the Group. Ms Fleming agreed if this was confidential to the members of the Group, and not circulated to their organisations. Ms Fleming undertook to confirm the content of the presentation before DEST circulated the slides to members.

Actions

- Mr McMeekin to circulate to CAUDIT a copy of the Terms of Reference for and background to the Group’s work.
- Ms Fleming’s slides to be circulated in confidence to members of the Group, for their individual use.
- Ms Fleming to provide a less detailed version of her slides for the members to use in discussions within their organisation.
- Geoscience Australia to work on defining the scope of the government research community.

Agenda Item 8 – Next meeting

The Chair noted that the next meeting was envisaged to occur by early December.

Actions

- DEST to seek members’ availability for a meeting in late November or early December 2007.

Agenda Item 9 – Close

The meeting closed at around 1.30 pm.

Attachment A - Actions Arising

Action	Responsible Lead
<ol style="list-style-type: none"> 1. Formally seek statements of conflicts of interest from members. 2. DEST to finalise confidentiality arrangements. 3. Revise Terms of Reference to reflect the extended timeframe. 4. Coordinate seeking the set of information agreed to by the Group. 5. Discuss with Dr Withers ways of better understanding the internal charging models for universities, including the extent to which universities were charging third parties. 6. Seek members' availability for a meeting in late November or early December 2007. 7. To circulate Ms Fleming's slides in confidence to members of the Group, for their individual use. 	DEST
<ol style="list-style-type: none"> 8. Work to develop a set of definitions for use by the Group. 	DEST / AARNet Pty Ltd
<ol style="list-style-type: none"> 9. Provide an agreed description of the current situation of price, cost and revenue elements for the next meeting. The Chair noted it would be useful to understand third party use in more detail. 10. Confirm the set of Ms Fleming's slides to be circulated to the members of the Group, for their individual use. 11. Provide a briefer version of Ms Fleming's slides for the members to use in discussions within their organisation. 	AARNet Pty Ltd
<ol style="list-style-type: none"> 12. Work on defining the scope of the government research community. 	Geoscience Australia
<ol style="list-style-type: none"> 13. Provide a description to increase understanding of the NCRIS network needs. 	Dr Francis
<ol style="list-style-type: none"> 14. Circulate to CAUDIT a copy of the Terms of Reference for and background to the Group's work. 	Mr McMeekin

**EXPERT ADVISORY GROUP ON
AUSTRALIAN RESEARCH AND EDUCATION NETWORK**

MEMBERSHIP

Member	Title
Dr Evan Arthur (Chair)	Group Manager, Innovation and Research Systems Group, Department of Education, Science and Training
Professor Alan Robson	Vice-Chancellor, University of Western Australia Member, AARNet Board of Directors
Mr John Parry	Chair, AARNet Advisory Committee; Director, Information Technology Resources, University of Tasmania
Ms Mary Fleming	Director Business Development, AARNet Pty Ltd
Mr Alan McMeekin	Chair, Council of Australian University Directors of Information Technology and Executive Director, Information Technology Services, Monash University
Dr Neville Smith	Acting Deputy Director (Research & Systems), Bureau of Meteorology
Mr Dennis Bittisnich	Manager Innovation Policy, Rural Policy and Innovation Division, Department of Agriculture Fisheries and Forestry
Mr Mike Whelan	Deputy Chief Executive, Executive Director Finance and Governance, Chief Finance Officer, CSIRO
Mr Glenn Ashe	Chief Information Officer, Geoscience Australia
Professor Barney Glover	Deputy Vice Chancellor (Research), University of Newcastle
Dr Glenn Withers AO	Chief Executive Officer, Universities Australia
Dr Rhys Francis	Executive Director, Australian eResearch Infrastructure Council (AeRIC)
Ms Anne-Marie Lansdown	Branch Manager, Innovation and Research Branch, Department of Education, Science and Training

DRAFT TERMS OF REFERENCE / OPERATIONAL FRAMEWORK

Expert Advisory Group on the Australian Research and Education Network

Background

The NCRIS Platforms for Collaboration (PfC) Investment Plan articulated the centrality of an underpinning high bandwidth telecommunications network to the progress of NCRIS and as a foundational element of the PfC capability. The importance of a network capable of transmitting large amounts of research and research-related data quickly, thus enabling data intensive research activities, is clear.

The Australian Government has supported the development of such a dedicated network, the Australian Research and Education Network (AREN), operated by AARNet Pty Ltd (APL). The overall objective has been to establish an advanced network at minimum cost, in a sustainable way while allowing fair access.

The availability of this network capacity is essential for the quality of research conducted in Australia, particularly in relation to the NCRIS programme but also elsewhere. Consideration of the needs of NCRIS and other researchers, particularly those in non-AARNet member institutions, and their expectations of network capability, access and pricing, is needed to optimise the benefits of the AREN for these new customers.

Scope

The overall scope of the Expert Advisory Group on the Australian Research and Education Network (“Expert Advisory Group on AREN) will be to advise the Australian eResearch Infrastructure Council (AeRIC), DEST and APL on:

- The specific needs of key groups of researchers in non-AARNet member institutions, including NCRIS researchers and federal and state government researchers, in relation to the AREN;
- Barriers and enablers, including role and impact of business models, to the AREN being accessible to the wider research and NCRIS community; and
- Significant or strategic gaps in the current AREN infrastructure, primarily from an NCRIS standpoint.

Establishment

- The Expert Advisory Group on AREN will be established under the guidance of AeRIC;
- AeRIC will provide comments on the membership and terms of reference of the group, as it is being established;
- DEST or the Expert Advisory Group on AREN may seek guidance from AeRIC in resolving issues around establishment or governance.

Terms of Reference

Specifically, the Expert Advisory Group on AREN will undertake the following activities under the guidance of AeRIC:

- Prepare a set of principles that underpin and guide the pricing and funding arrangements for the AREN. In shaping these principles:
 - Identify and report on impediments to the wider NCRIS research community optimising their use of bandwidth on the AREN;
 - Review the APL network pricing model to ascertain congruence with current and future needs of the NCRIS community and wider research and education sectors. Evaluate the potential efficacy of the APL network pricing model in attracting new NCRIS and research users of the AREN;
 - Ascertain and report on the range of options for alternate network pricing and funding models for the AREN. The Expert Advisory Group on AREN will have regard to models developed by APL as well as relevant models within and outside Australia;
 - Determine and prepare recommendations to AeRIC on the factors that would facilitate the implementation of the preferred network funding and pricing model by APL as operator of the AREN. These may include means to assist APL in accelerating the uptake by APL's existing customers, NCRIS and other new research users of the preferred model.
 - Prepare an assessment of the needs of NCRIS researchers in non-AARNet member institutions, in relation to high bandwidth connectivity, including the nature and drivers of these researchers' needs;
 - Identify significant or strategic gaps that exist nationally and internationally in the AREN physical infrastructure and advise on the impact of such gaps for the NCRIS research community;

Interaction with Stakeholders

The Expert Advisory Group on AREN will:

- Engage collaboratively with DEST in relation to the group's deliberations and determinations;
- Seek guidance as needed, and action directions received, from AeRIC in implementing these activities;
- Consult and engage collaboratively with APL in undertaking the required activities;
- With a focus on determining needs and optimal approaches to network access and pricing:
 - Identify and consult NCRIS stakeholders in conducting the above activities.
 - Identify and consult other appropriate stakeholders in the higher education and research community.
 - Identify and consult other future or potential stakeholders in the AREN, including other education sectors, as appropriate.
- Seek advice as appropriate from relevant experts or key stakeholders not included on its membership, including but not limited to the National Broadband Adviser for Education and the Australian Government Department of Communications, IT and the Arts.

Timing/ Key Milestones

- Provide a final report and recommendations to AeRIC.

Membership

Chair

The Chair will be the Group Manager, Innovation and Research Systems Group (IRSG), DEST.

General Members

Members of the Expert Advisory Group on AREN should collectively demonstrate the following characteristics:

- A comprehensive understanding of business modelling in relation to national or major Australian research or higher education oriented information and communications technology (ICT).
- A collegiate approach to this issue and to the research infrastructure needs of NCRIS as a whole.
- A keen understanding of, and/or experience in, network pricing and an appreciation of the issues and challenges facing network operators in a non-commercial environment.
- A preparedness and ability to foster and promote the activities of the expert advisory group, including anticipated outcomes, to the higher education and research community, and to the NCRIS community in particular.

It is anticipated that at least one representative will be drawn from APL. Further members will be affiliated or drawn from APL's membership base and from potential or new customers for the network, including those from the NCRIS community.

The scope of membership will include:

- DEST nominee as Chair;
- A Vice-Chancellor;
- A Deputy Vice-Chancellor (Research);
- Appropriate nominees from Universities Australia; the Group of Eight, and the Council of Australian University Directors of Information Technology (CAUDIT);
- Representatives from the Bureau of Meteorology (BOM), Geoscience Australia, the Victorian Department of Primary Industries, and CSIRO;
- AARNet Advisory Committee charging representative and one other appropriate APL representative.

Conflicts of Interest

As its decisions and recommendations will affect funding decisions, the Expert Advisory Group on AREN will adopt a Conflict of Interest policy consistent with that of AeRIC.

Confidentiality

All members will be required to sign a statement to ensure the confidentiality of sensitive documents that members may consider during the course of the group's operations.

Remuneration

Positions are honorary positions and no remuneration or sitting fees will be paid.

Travel Expenses

Reasonable travel expenses for members to attend meetings of the Expert Advisory Group on AREN will be met by the AeRIC Secretariat.

Conduct of Meetings

Regularity of Meetings

It is expected that the Expert Advisory Group on AREN will meet in sufficient time and with sufficient regularity to successfully undertake its activities.

Quorum

A quorum for a meeting of the Expert Advisory Group on AREN will be a minimum of five members, which must include the Chair and DEST nominee and at least one AARNet nominee.

Decision making

The Expert Advisory Group on AREN shall seek to reach decisions on a consensus basis.

Records of Meetings

The AeRIC Secretariat will keep appropriate records of decisions and resolutions made by Expert Advisory Group on AREN.