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To: ccdirectors-oz@aarnet.edu.au
CC: Wright_RJ@cc.curtin.edu.au, g.rees@uqvax.cc.uq.oz.au
Subj: Unconfirmed Minutes of Advisory Board meeting No 2/91

This mail is directed to all Computer Centre Directors and the listed secretaries of the Qld and WA Regional AARNet groups.

Attached to the end of this mail are the unconfirmed minutes of meeting 2/19 of the AARNet Advisory Board, for your information.

They are being forwarded into this mailing list to assist in the process of informing those directly concerned within each institution of the current activities being undertaken through AARNet.

As you may be aware, it is not the normal practice of the AVCC to generally distribute the unconfirmed minutes of meetings of their Standing Committees, so, as these are unconfirmed minutes, I am requesting on behalf of the AVCC Secretariat that these minutes are handled with due care and attention with respect to possible further distribution.

I would also request that, in the first instance, could you direct any queries relating to matters covered in these unconfirmed minutes to myself.

Thank you,

Geoff Huston

--
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Australian Academic and Research Network

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Attachment follows:...

UNCONFIRMED MINUTES OF MEETING 2/19 OF THE
AARNET ADVISORY BOARD

AV-CC
Australian Vice-Chancellors' Committee
(INCORPORATED IN THE A.C.T.)

1-5 Geils Court, Telephone: (06) 285 8200
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AUSTRALIAN ACADEMIC AND RESEARCH NETWORK ADVISORY BOARD
MEETING NO. 2/91

The second meeting of the Australian Academic and Research Network (AARNet) Advisory Board for 1991 was held on Wednesday 29 May 1991 at the University of Sydney, commencing at 9:00 am.

MINUTES

1. ATTENDANCE AND APOLOGIES

Professor Don McNicol (Chair)
Mr Alan Coulter
Mr Iain Morrison (Standing in for Professor Peter Poole)
Mr Greg Batchelor
Professor Mary O'Kane

Secretariat

Mr John Mullarvey
Mr Geoff Huston
Mr Peter Elford

Apologies

Dr Robin Erskine

Dr J G (Iain) Wallace
Dr John O'Callaghan

2. MINUTES

The minutes of the first meeting of the Board for 1991, held on 22 February 1991 were confirmed.

3. MATTERS ARISING FROM THE MINUTES (NOT RAISED ELSEWHERE IN THE AGENDA)

Members were advised that a number of items requiring further activity arising from the minutes of the previous meeting had not been completed in time for this meeting. Those items not listed elsewhere in these minutes are:

AARNet Case Studies

A cross-sectional set of case studies and summary sheet be returned to the Board for clearance prior to circulation to sites / campuses. This item will be deferred to the August 1991 meeting of the Board;

AARNet Access to Australian Bureau of Statistics

The Board was advised that following further related work being undertaken by the Australian Bureau of Statistics (ABS) within their program of publishing and electronic dissemination of ABS data a formal approach to the ABS may not be necessary. This situation would be kept under review, as would connections by other Government Departments, and reported in due course.

3.1 AARNet Status Report

Members considered the AARNet First Quarter 1991 Report and attached usage graphs.

Specific items in this report that were highlighted to the committee included:

- the establishment of the Affiliate Membership Program, with receipts from this program totalling some \$239,500 to date;
- notification that usage levels have been climbing consistently through 1991, and exponential growth trends are continuing;
- the upgraded 2Mbps service between Sydney, Canberra and Melbourne that was commissioned on 23 April 1991, which has addressed what was becoming a serious access problem for AARNet;
- the upgraded 256Kbps international service between AARNet and the US that was commissioned on 21 May 1991, again addressing access issues associated with the growth of usage; and
- the forthcoming access issues concerning AARNet national links into Queensland and South Australia, and the anticipated requirement for capacity upgrades in 1991.

One of the major areas of nominated activity was the presentation of the AARNet Resource Guide, plus related material, in a published booklet format. It was agreed that the material for such a booklet would include the material currently assembled into the AARNet Resource Guide, the AARNet user guide material being prepared by the Queensland University of Technology (through a 1990 AARNet-funded project) and additional material which would be of relevance to end-users. It was agreed that AARNet would prepare the basic material, and liaise with the QUT project personnel of technical writers to ensure the highest possible levels of consistency and quality of the final booklet. It was agreed by the Board that the costs of the initial limited production run of such a booklet would be at AARNet's expense, and that further quantities would be produced at cost to the institution as per orders received.

The Board resolved to:

- (i) note the AARNet First Quarter Report;
- (ii) note the current usage levels of AARNet; and
- (iii) endorse the production of an AARNet Resource Booklet, with

a proposed production schedule such that a draft of the booklet is to be reviewed by the Board in August 1991.

3.2 Connection of AVCC Member Institutions

The Board received a report indicating that action is underway to provide AARNet connections to all current institutional members of the AVCC. The outstanding AARNet connections are those of the Victorian University of Technology (following the recent realignment of the member institutions), the Ballarat University College and the Australian Catholic University.

The Board resolved to:

note the action taken.

3.3 Staffing

Members were advised that the interview panel for the position of General Manager, AARNet had reported to the Board of Directors of the AVCC that there was no suitable applicant for the position, and that to encourage suitable applicants the remuneration package should be reevaluated in terms of parity with similar positions within AVCC member institutions. The Board of Directors of the AVCC has indicated that the position should be readvertised using the current salary and proposed benefits as a package in a bid to obtain a suitable person.

The Board discussed in general terms possible staffing structures for AARNet, and noted that a document containing an outlook of the likely future of AARNet would be helpful in providing appropriate advice to the Board of Directors of the AVCC on whether the position should be readvertised in its present format, or whether alternate courses of action were considered to be more reasonable.

The Board resolved to:

prepare a document for the AVCC indicating the potential directions for AARNet and indicate appropriate staffing structures associated with such scenarios.

3.4 AVCC / CSIRO Agreement for AARNet

Mr Batchelor and Mr Mullarvey reported that the drafting of an agreement document, based on the AARNet agreement between the AVCC and AVCC Member Institutions, had been completed, and would be signed by the AVCC and CSIRO in the very near future.

The Board resolved to:

note this action.

4. AARNet Funding for Projects

4.1 AARNet Project Sub-Committee Report

The Board considered the report prepared by the Project Evaluation Sub-Committee of the Advisory Board. The Board noted a number of issues regarding the membership of the Sub-Committee, and noted the limited time within which the Sub-Committee had been given to complete its evaluation. The membership of the Sub-Committee was noted as being: Dr Erskine (convener), Professor O'Kane, Dr O'Callaghan, Mr Coulter and Mr Huston.

The Board considered the 15 submitted projects, and agreed to commit immediate support to those three projects where the Sub-Committee report indicated full support. These project are:

A Time Reference for AARNet (CSIRO DMS);

Archiving within Australia and Information Archive Directories (University of Wollongong, The University of Sydney plus others);
and

Antarctic Division Connection (The University of Tasmania).

There was an additional condition placed on funding of the Archiving project: namely in the first instance funding would be made available for the project members to meet and produce a more detailed report on the scope and intended timetable of the project and indicate what deliverables are

anticipated from the project.

A condition placed on funding of the Antarctic Division project was that the Antarctic Division would pay the Affiliate Membership fee rather than having this sum funded from the project budget. The remainder of the projects were to be reviewed by the Sub-Committee, and a report submitted to the chair of the Board as soon as this had taken place.

The Board also considered that for future years it would be beneficial for AARNet to state what projects it wishes to fund, and invite groups to bid to undertake the nominated projects. In this way AARNet could direct funding in a more focussed manner to specific areas of requirement, and allow institutions to respond in a more directed fashion to common communications requirements associated with AARNet.

The Board resolved to:

- (i) approve the funding of \$7,400 for the "Time Reference for AARNet" project to be undertaken by CSIRO DMS;
- (ii) approve the funding of \$3,000 for an initial meeting of the joint proposers of the Archiving file service project, and the balance of \$67,000 subject to the production of a detailed project description following this meeting;
- (iii) approve funding of up to \$20,000 to connect the Antarctic Division to AARNet to be undertaken by the University of Tasmania, with the condition that the AARNet Affiliate Membership fee is payable by the Antarctic Division; and
- (iv) request the Evaluation Sub-Committee to reconvene and review all remaining project submissions.

4.2 Report concerning discussions with IBM Australia

The Board heard a report from Mr Huston concerning the substance of discussions with representatives from IBM Australia. IBM Australia are considering the funding of 2 research fellowships for Australian academics to work in the United States on Internet related research activities. IBM Australia are also considering funding support toward activities which would be of direct benefit to the AARNet user population. Current consideration is being given to a proposal for Intelligent Archive Services on the Internet.

The Board resolved to:

note these activities.

4.3 AARNet Summer Research Fellowships

The Board considered a proposal for AARNet to fund, on a trial basis, the awarding of three Summer Research Fellowships for the summer of 1991/92 to postgraduate research students, each of a value of \$5,000.

The Board considered that it was not the responsibility of AARNet to fund activities of a research nature, and therefore this proposal was not accepted by the Board.

The Board resolved to:

reject the proposal to fund Summer Research Fellowships on the grounds that such an activity was considered as being beyond the scope of AARNet's program.

5. AVCC Standing Committees

The Board considered a memorandum from the AVCC Standing Committee on Planning and Development addressing matters arising from the recent Commonwealth Department of Employment, Education and Training Library Review and proposing the establishment of an AVCC Standing Committee on Information Resources.

The Board considered that due to the continuing developmental activity being undertaken by the AARNet program, and the importance of the relationship with CSIRO over AARNet, there were sound reasons to advise the AVCC that the AARNet Advisory Board should remain a distinct Standing Committee of the AVCC.

The Board also felt that if a Standing Committee on Information Resources were to be established by the AVCC, then every effort should be made to ensure that there is cross communication between these committees on matters relating to network services.

The Board resolved to:

- (i) advise the AVCC that the AARNet Advisory Board should remain a distinct Standing Committee of the AVCC; and
- (ii) recommend to the AVCC that if a Standing Committee on Information Resources is established then there should be a mechanism for cross communication between the two Standing Committees on network-related matters.

6. AARNet LINKS WITHIN MELBOURNE

The Board considered a proposal to upgrade two AARNet links within Melbourne, in conjunction with CSIRO. The upgrade proposal calls for the installation of a 10Mbps microwave link between the Victorian Hub and the CSIRO Joint Supercomputer Facility (JSF), and an upgrade of the existing 48K DDS Service to Monash University / CSIRO Clayton to a 2Mbps capacity circuit. This upgrade of the circuit to Monash/Clayton is the first of the AARNet upgrades to tail links which are reaching full peak load levels. By combining this activity with current CSIRO requirements, a shared solution provides a cost effective configuration for the total user community, and allows the AARNet community to realise benefits in more direct access to the Supercomputer resources at the CSIRO JSF.

The additional AARNet expenditure is some \$53,300 in 1991 and some \$3,100 p.a. thereafter, which is matched by an additional CSIRO expenditure of some \$40,000 in 1991 and \$22,000 p.a. in subsequent years,

The Board resolved to:

approve the additional AARNet expenditure to allow these links to be upgraded.

7. AFFILIATE MEMBERSHIP OF AARNet

7.1 Summary of Affiliate Membership status

The Board considered a summary of Affiliate Membership applications processed as of 10 May 1991. It was noted that receipts from the Affiliate Membership program for 1991 total some \$239,500 to date.

The Board resolved to:

note the status of the Affiliate Membership program.

7.2 Anti-Cancer Council of Victoria

The Board considered a request from the Director of the Anti-Cancer Council of Victoria to exempt the Council from the \$1,000 Mail Service Affiliate Membership charge.

The request was declined by the Board, and in doing so the Board noted that in principle the Affiliate Membership fee would apply to all organisations and bodies which wished to join AARNet and were not part of an AVCC member institution of CSIRO.

The Board resolved to:

decline the request for waiving the Affiliate Membership Mail Service fee for the Anti-Cancer Council of Victoria.

7.3 National Library of Australia

The Board considered correspondence from the Deputy Director of the National Library of Australia (NLA), and additional notes prepared by AARNet staff regarding the connection of the Australian Bibliographic Network (ABN) to AARNet.

The Board noted that the ABN was effectively a common resource of the academic and research sector with the major positions within the ABN body

being held by the the AVCC member institutions and CSIRO. As has been decided in the past for other cooperative library programs in which the AVCC member institutions and CSIRO bodies hold major positions, it was considered appropriate that there be no fee payable.

The Board noted that the proposed service was a uni-directional service, where AARNet members will gain access to the ABN, but the NLA will not be able to gain access to AARNet. It was noted that it is highly likely that the NLA will apply for Affiliate Membership of AARNet in the near future in order for the NLA to access AARNet, and that Affiliate Membership terms and conditions would apply to the NLA connection.

The Board resolved to:

approve the request for connection of the ABN to AARNet.

7.4 Strategic Research Foundation and the Australian Computing and Communications Institute.

The Board considered correspondence received from the Strategic Research Foundation (SRF) regarding a network connection to AARNet on behalf of the Biomolecular Research Institute (BRI) and the Australian Computing and Communications Institute (ACCI), and a separate and subsequent application for Affiliate membership made by ACCI.

The Board took the view that the application from ACCI effectively superseded that of the SRF, and requested AARNet staff to confirm this with the SRF.

The Board indicated that, subject to the normal requirements of sponsorship, the ACCI application for Affiliate Membership is approved. The Board indicated that further discussion is required between AVCC staff and the ACCI regarding the Affiliate Membership fees associated with the proposed high speed interconnection. The Board requested that ACCI provide AARNet with an 18 month projection of level of AARNet usage by ACCI in order to determine the Affiliate Membership fee. An annual fee of \$60,000 was suggested, given the particular nature of this connection. However it was agreed that detailed discussion with ACCI regarding estimated usage take place before a final figure was determined.

The Board resolved to:

- (i) approve the request for connection of ACCI to AARNet subject to standard sponsorship conditions being completed; and
- (ii) request the AVCC Secretariat to negotiate with ACCI a suitable fee for Affiliate Membership for 1991 and 1992, taking into account projected levels of usage of AARNet by ACCI.

7.4 Department of Employment, Education and Training

The Board considered correspondence received from DEET regarding the department's contemplated participation in AARNet. It was noted that this correspondence was a part of ongoing activity with the Department regarding potential uses of AARNet in this area.

The Board resolved to:

note these activities.

7.5 Cooperative Research Centres (CRCs)

The Board considered the relationship between AARNet Affiliate Membership policies and the Cooperative Research Centres (CRCs). The Board commented that whilst the Affiliate Membership guidelines effectively covered the CRCs, some clarification of how these guidelines relate to the different CRC structures would be helpful to other bodies.

The Board noted that where the CRC is not a separate legal entity and the CRC participants are CSIRO and universities only, no distinct Affiliate Membership is required by the CRC. However it was noted that this combination was unlikely to occur because of the nature of the CRC program. Where other parties are involved in a CRC, these bodies are eligible to join AARNet as Affiliate Members, and this CRC involvement may be cited as the supporting collaborative activity for AARNet membership.

The Board noted that where a CRC is established as a separate legal entity,

the CRC itself would need to apply for Affiliate Membership, if it requires access to AARNet.

The Board resolved to note that:

- (i) where the only participants in the CRC are CSIRO and universities (and the CRC is not a separate legal entity), the CRC would have access to AARNet in the same way as existing members;
- (ii) where CRC partners include a university (and CSIRO) and other parties, the latter are eligible to apply for AARNet Affiliate Membership, if they require access to AARNet; and
- (iii) where CRCs have been established as separate legal entities, the centre would need to apply for Affiliate Membership if it requires access to AARNet.

8. AARNet Forward Expenditure Estimates

The Board considered a document outlining forward estimates of expenditure and funding for AARNet.

The document examined the projected requirements for services by AARNet clients over the period 1992 - 1994, using current data and comparable overseas experience as a basis for the projections. The projected requirements for this period indicated that a model of a phased migration from kilobit per second to megabit per second link capacities over the 1992 / 94 triennium is a median estimate for AARNet growth. The document indicated that growth rates would in all probability continue to show an exponential trend over this period due to the increasing user population and the increasing intensity of individual use patterns.

The document examined the likely trends in the costs of the provision of AARNet services, and concluded that the cost of the provision of services would decline on a per unit basis due to realising economies of scales of operation and anticipated decreases in the cost of carrier services in a deregulated domestic communications carrier environment.

The document included a potential forward expenditure schedule based on servicing such a requirements model which indicated that expenditure levels are anticipated to grow in a linear fashion by some 25% per annum for each of the three years.

A funding model for this expenditure prediction was included which was based on the three major funding sectors (the universities, CSIRO and the Australian Research Council (ARC)) maintaining the same relative level of funding for the 1992 - 94 period as they have committed in 1990 -91.

The Board noted that the triennium expenditure and funding schedule clearly indicated the short term and probable medium term directions for AARNet in terms of resource requirements, and agreed that AARNet funding for future years should be based on a rolling triennium schedule. The Board considered that this rolling triennium expenditure and funding schedule for AARNet would allow those bodies who provide funding to be able to work with reasonable estimates regarding future commitments associated with AARNet.

The Board noted the high levels of uncertainty in making longer term predictions about the movement of such a dynamic area of activity, and noted that while these forward estimates envisaged a significant level of growth in the requirements for current communications technologies, the next generation of these technologies, based on very high speed network services, may require a broader base of institutional involvement. It was noted by the Board that a program which would make such very high speed services available to the Australian academic and research sector may well be a part of a larger national effort within this area of activity in the leading edge communications services.

The Board resolved to:

- (i) accept the indicative expenditure schedules as presented in the forward estimates document, noting that additional revision is required to this schedule toward the end of 1991;
- (ii) recommend to the AVCC that AARNet be funded in future years on the basis of a rolling triennium schedule prepared through the AARNet Advisory Board;

- (iii) recommend to the AVCC that it seek CSIRO's commitment to a funding mechanism for AARNet based on a rolling triennium schedule;
- (iv) recommend to the AVCC that it seek the ARC's commitment to a funding mechanism for AARNet based on a rolling triennium schedule;
- (v) note that it is highly likely that the next generation (gigabit) of communications technology requirements will require a fundamental change in the funding support structure if it is to be made available to Australian researchers and academics, due to an anticipated order of magnitude increase in levels of associated expenditure; and
- (vi) recommend that the AVCC write to the Commonwealth Department of Industry, Technology and Commerce, outlining the challenges facing Australia in keeping pace with our peer nations in the deployment of communications facilities within the broad area of use of information technologies and seek support for funding future expansion to the network.

9. International Activities

In response to a request from the Lae University of Technology, the Board considered a proposal to request the Department of Computer Science, University of Melbourne to arrange a dial-up link to the Lae University of Technology in Papua New Guinea, and that the Department be funded \$15,000 for the dial-up expenses in maintaining both this link, and the existing dial-up link to Thailand, for 1991.

The proposal called for AARNet to take a major role in the provision of academic and research communications services to neighbouring nations in the South East Asia / Pacific region and noted that such an activity would assist in the overall Pacific regional effort in providing cohesive and cost effective services in this area.

The Board resolved to:

- (i) approve the proposal to provide e-mail connectivity to Papua New Guinea; and
- (ii) approve funding for the University of Melbourne to support the e-mail links to Papua New Guinea and Thailand for an initial period up to the end of 1992.

10. AARNet Budget

The Board considered the revised AARNet budget for 1991.

The budget included a number of additional proposals as detailed in the notes attached to the Budget. The major item was to bring forward planned upgrades of capacity into Queensland and South Australia in response to continued increasing levels of growth on these two links. It was proposed that this upgrade be implemented by the last quarter of 1991.

Other items on the revised budget include expenditure items already covered under previous matters within these minutes, and minor corrections to expenditure schedules. Other budget items include provision for the completion of the X.25 protocol pilot deployment in Queensland and upgrades to the processor configuration in the AARNet hub switches. It is noted that these expenditure items can be met from within the existing 1991 AARNet budget, and that there is no requirement for additional mid-year AARNet funding for 1991.

The Board resolved to:

- (i) approve expenditure of \$150,000 for the implementation of additional network capacity to Queensland and South Australia by the final quarter of 1991;
- (ii) approve expenditure of \$16,600 to complete the X.25 pilot activity in Queensland;
- (iii) approve expenditure of \$35,000 to upgrade the AARNet Hub

- switches processors; and
- (iv) approve the revised budget;

11. Other Business

11.1 International Activities

The Board considered a report tabled by Mr Huston following attendance at the recent Reseaux Associes pour la Recherche Europeenne (RARE) annual conference and the subsequent meetings of the Intercontinental Engineering and Planning Group (IEPG) and the Coordinating Council for Intercontinental Research Networks (CCIRN) (also attended by Dr Erskine).

The report notes the already significant presence of AARNet within the international domain, and indicates that AARNet has a commitment to pursue an active role internationally to ensure that international services are maintained to the AARNet client community.

The report notes the common desire to establish a more tangible organisational structure within the Pacific in order to ensure that further development of regional links in the Pacific proceeds in an open and cooperative environment. The report also notes the considerable difficulties faced by the European bodies in attempting to resolve issues surrounding the research into network technologies that is being undertaken by the same bodies who are responsible for supplying networking services to academics and researchers in a production environment. The report notes that maintenance of a very clear delineation between such research and production activities is one of the major elements of a stable production service. As a consequence it is not considered prudent for the production service body to directly undertake general research activities.

The Board resolved to:

note the report.

11.2 AARNet Directory Services Project Report

The Board considered the First Quarter report of the Directory Services Project, being coordinated through the University of Queensland. This project was funded from the 1990 Project funding program, and as a component of the activity quarterly reports to the Board are being produced.

The report noted that the project had purchased 4 computing platforms, located in Brisbane, Melbourne, Sydney and Adelaide (all connected to AARNet), running the X.500 directory software.

The associated project schedule indicates that activity will now focus on matters associated with population of the electronic directory and associated management topics.

The Board resolved to:

note the report.

11.3 The Australian Supercomputer Network

The Board was informed that Boeing Computer Services have signed an agreement to implement the Australian Supercomputer Network with the Commonwealth Department of Industry Technology and Commerce, and that this project will include the active participation of Leading Edge.

The Board resolved to:

note this activity.

12. DATES OF NEXT MEETINGS

As arranged subsequent to meeting 1/91, members of the Board are advised that the dates of the remaining meetings for 1991 are scheduled to be held as follows:

Meeting 3/91: Wednesday 21st August 10:30 - 2:30
venue: The University of Sydney

Meeting 4/91: Friday 22nd November 9:30 - 12:30
venue: The University of Sydney

Would members please note the slightly later starting times for these meetings.

The meeting closed at 12:30 pm.

[GH
AARNet/60/90
3 July 1991,
12 July 1991]