



# Australian Vice-Chancellors' Committee

(INCORPORATED IN THE A.C.T.)

Ref: AARNET/58/91  
26 May 1991

## A Profile of PACCOM

### 1. Introduction

PACCOM is a regional initiative in the Pacific area with the objective of the provision of common communications services to the academic and research sector of each member nation. The program currently includes the United States, Japan, Korea, Australia and New Zealand.

PACCOM was formed following the identification of communications requirements for various specific research activities within the Pacific in 1987/88. The observation was made that although a direction of the installation and maintenance of individual requirement-specific communications was technically feasible, it was seen as being far more cost effective to concentrate both engineering and management resources on the issues involved with the construction of broader infrastructural facilities which in turn would encompass the specific requirement issues within this broader regional framework.

The adoption of this general strategic direction within PACCOM has implied activities in two areas; the development of infrastructural communications networks within each nation; and the development of a cohesive international network as a conformant superstructure of connectivity.

Both of these areas of activity within PACCOM have been undertaken within an open cooperative framework, placing PACCOM in the role of being a significant catalyst for activity and a common resource of technical, engineering and management skills.

### 2. The Organisational Structures within PACCOM Member Nations

In order to describe the total PACCOM organisational structure it is appropriate to initially describe the various national network organisational structures of the PACCOM member nations.

The United States internal structure is, at a fine level of detail, perhaps the most complex of the PACCOM grouping. The national communications service network is constructed from a set of various Federal Agency requirements-based networks, the National Science Foundation's support of a more general academic and research sector service support network, the various regional networks and the emerging commercial network operations. From the perspective of PACCOM the interaction between the United States and PACCOM is both specific to various Federal Agencies, as well as including a more general level of interaction with the US coordinating bodies, including the FNC and the FEFG.

The internal organisational structure within Japan is also one where a number of distinct entities provide communications facilities to various sectors of the total academic and research sector. These include the Ministry of Education and a number of government and industry research bodies. A degree of internal coordination has been achieved in Japan, but total cohesion of effort in this service role is still forthcoming.

The internal organisational structure within Australia is focused on the higher education sector. The peak body of this sector, the Australian Vice-Chancellors Committee (AVCC), operates the national academic and research network on behalf of the wider Australian academic and research sector. As well as the higher education institutions, the government research organisation, CSIRO, is included within this program, as are a number of other public and industry research facilities who undertake collaborative research activities. Their role is seen as one of a client of the common communications service provider, the AVCC.

---

A similar picture exists within New Zealand, where the core structure is based on that of the higher education institutions. Unlike Australia there is no single organisation operating the national facility and the organisational structure is based on a cooperative program within these institutions and the government research organisation, DSIR.

Within Korea the organisational structure is still one of evolution. In terms of Internetworking, the grouping of the various governmental research facilities is the focus of the national Internet service at present, while the higher education institutions and other research groupings are in a state of evolution from a less structured current networking profile.

### **3. The Organisational Structure of PACCOM**

The PACCOM program is based on technical, engineering and managerial cooperation between the member nations, with a common asset of the international facilities which interconnect these members.

The common technical and engineering activity is undertaken through continuing group communications, as provided by e-mail facilities, as well as an annual meeting of representatives of each of the PACCOM member nations.

These annual PACCOM meetings, held since 1988, have been attended by national representatives at both a managerial and a technical level, and the agenda of the meetings have reflected this dual common role of PACCOM.

These meetings have to date included a strong component of exposition of the current status of available communications technologies, as well as investigation of the application of these technologies in a service role within the context of the PACCOM international facilities and within the national networks. Additionally these meetings and subsequent followup activities have encompassed relevant policy issues concerning the international arrangements of PACCOM.

The decision making structure within PACCOM is through a consensus seeking process. The current size of PACCOM, and the current organisation of the international infrastructure, has to date made this approach both acceptable to all concerned and proved to be a viable decision making process. It must be stressed that such decisions are made within the context of their application within the member nations concerned. It is not the intent of PACCOM to impose itself as some form of higher authority in any area, and indeed the opposite is more the case, where the decision making process seeks to identify all relevant constraints, and seek a consensus decision within these bounds. In general such a process has allowed the effective determination of common targets and realistic common timetables for activities, effectively providing the necessary coordination in the international venue.

The process of the preparation of a more formal common overall agreement between all member nations of PACCOM is still underway. An initial meeting of such a policy and coordination group is scheduled for 9 August 1991. The major motivation of this activity is to strive for an environment where such open cooperative international activity within the academic and research sector is undertaken within an environment of national commitment to reasonable organisational stability, thus adding an additional necessary dimension to the existing quality of the service provided back to the individual scholar or research user.

It should also be noted that the membership of PACCOM has been commonly agreed to be an open structure, allowing a membership of nations based on a common interest in this area of provision of sector-based infrastructural communications facilities and a desire to join in a common purpose of endeavour.

### **4. The Pacific Region**

While the following nations are not at present members of PACCOM, it should be noted that there are other areas of activity within the Pacific (information relating to some of the following is incomplete as yet).

---

Taiwan is currently establishing a national Internet network as an evolution from the existing BITNET facilities. At present this activity is being undertaken in conjunction with the CREN as the major US counterpart. This activity has not been undertaken within the common framework of PACCOM.

Singapore and Hong Kong are also Pacific members of BITNET (and there is also a Japanese BITNET organisational structure). It is a reasonable expectation that these nations will also establish national Internet facilities through the evolution of these BITNET facilities in the near future. At this point in time it is anticipated that Hong Kong will join in PACCOM in the very near future, while initially Singapore is connected to the Internet in a manner similar to Taiwan.

Basic e-mail connectivity is provided to Fiji via a sponsoring program undertaken by New Zealand, a similar sponsorship program is underway between Australia and Thailand, and in the near future a third connection is anticipated between Australia and Papua New Guinea. More fragmented programs of e-mail services are being undertaken in Malaysia and Indonesia.

It is reasonable to assert that a more encompassing cohesive and stable program of communications facilities to the region's academic and research sector are required within the Pacific Rim, particularly as an integral component of the programs of technological assistance to the developing nations in the area. While it is acknowledged that there are significant issues in terms of the costs of communications services within many parts of the Pacific, and there also exist major issues concerning the current levels of access to appropriate information technologies to make effective use of communications services within these developing nations, it is emphasised that effective academic and research sector communications services can play a major beneficial role in the Pacific over the coming decade, and that the existing organisational structure of PACCOM does has a significant potential role to play within this overall effort over the coming decade.

Geoff Huston  
Australian Academic and Research Network  
26/5/91

