APNIC Annual Report 1997

Introduction

1997 has been a year of very significant change within APNIC. The Asia Pacific Network Information Center has grown by 75% in terms of membership during the last year and over 30% in terms of resources allocated. This report characterizes this growth and details APNIC's responses in light of the additional requirements imposed by its rapid expansion.

The first section of this report will present APNIC's "Vital Statistics", namely its current operating environment and parameters. With APNIC's current situation detailed, APNIC's financial status as of December 31, 1997 will be presented. Next, APNIC's resource allocation activities, including the allocation of Internet addresses and autonomous system numbers will be described, followed by a discussion of the secondary activities APNIC has been involved in over the past year. APNIC's future directions and the challenges it faces will then be presented and finally, some conclusions will be drawn.

This report is submitted to the APNIC membership in order to provide the information necessary to make informed decisions on the future directions APNIC will take. Should there be any questions or comments, they can be sent via electronic mail to hostmaster@apnic.net.

APNIC Vital Statistics

APNIC is a non-profit registry organization operating on a cost recovery basis with the following objectives:

- to provide the service of allocating and registering Internet resources for the purpose of enabling communications via open system network protocols and to assist in the development and growth of the Internet in the Asia and Pacific Rim region;

- to assist the Asia and Pacific Rim Internet community in the development of procedures, mechanisms, and standards to efficiently allocate Internet resources as a service to the community as a whole;

- to provide educational opportunities to further Members' technical and policy understanding of the industry;

- to develop public policies and public positions in the best interest of the Members and to seek legislative and regulatory consideration of issues of general benefit to the Members, where and when appropriate;

- to serve as the administrative, managerial and operations arm of APNIC, Ltd. ("the corporation"), and to transact all activities, functions and affairs on behalf, and in the name, of the corporation.

In order to fulfill these objectives, APNIC is comprised of:

- Members, who are the governing body of APNIC;

- the Executive Council, which acts on behalf of APNIC;

- the Secretariat, headed by a Director General

This section will describe APNIC's current status in terms of this structure.

APNIC Membership Status

APNIC is explicitly a member based and directed organization, with the membership acting as the governing body of APNIC and a legal structure, APNIC, Ltd. acting only in support of APNIC. Membership is open to any organization operating in any of the following countries or territories:

Afghanistan	American Samoa	Australia	Bangladesh	Bhutan
Brunei Darussalam	Cambodia	China	Cocos Islands	Cook Islands
East Timor	Fiji	French Polynesia	Guam	Hong Kong
India	Indonesia	Japan	Kiribati	Laos
Macau	Malaysia	Maldives	Marshall Islands	Mongolia
Mauritius	Myanmar (Burma)	Nauru	Nepal	New Caledonia
New Zealand	Niue	Norfolk Island	North Korea	Pakistan
Papua New Guinea	Palau	Pitcairn	Singapore	Solomon Islands
South Korea	Sri Lanka	Taiwan	Thailand	The Philippines
Tonga	Tuvalu	Vanuatu	Vietnam	Western Samoa

Of these countries Afghanistan, American Samoa, Bhutan, Cocos Islands, Cook Islands, East Timor, Kiribati, Niue, North Korea, Palau, Pitcairn, and Tuvalu have yet to establish contact and/or at least one member with APNIC as of December 31, 1997. By country, APNIC's membership distribution can be seen in the following graph:
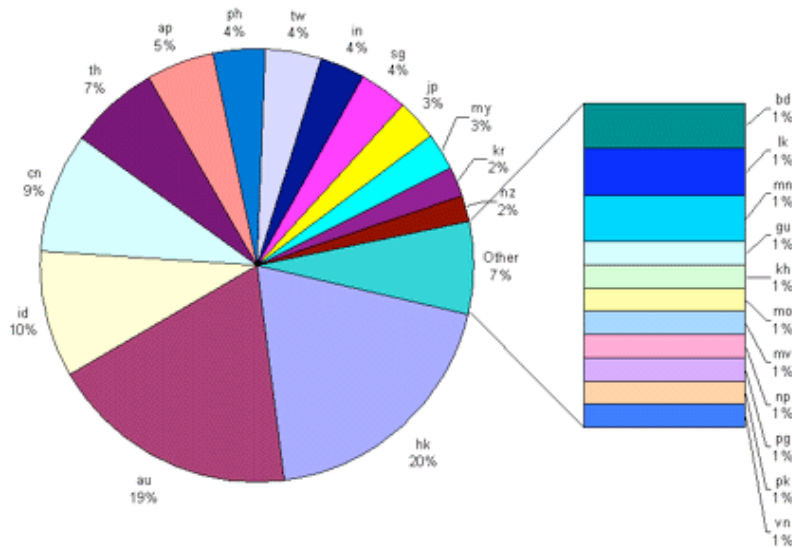
Membership Tiers

APNIC membership in 1997 was comprised of three "size" based tiers, "large", "medium", and "small" members. As the categorization of size of organizations can be controversial (e.g., what is measured?), APNIC allows organizations to determine their own size and thus their tier of membership. As of December 31, 1997, APNIC's membership was composed of:

Self-determined "Size" Tier	Number of Members
Large	20
Medium	30
Small	150
Total	200

A full listing of the current APNIC membership as of December 31, 1997 can be found in Appendix A.

Membership Growth Trends

As mentioned previously, APNIC has experienced significant growth in membership over the last year, increasing from 114 members to 200 members, an increase of 75%. Broken down by tiers, the growth rates for 1997 membership figures were:

Self-determined "Size" Tier	Number of new members	1997 Growth rate
Large	4	25%
Medium	1	3%
Small	81	117%
Total	86	75%

The growth over time can be seen in the graph below. Included in this graph are growth projections derived by linear regression and the equations of those lines. As can be seen, APNIC has been receiving (on average) approximately 7 new members per month, however the vast majority of those new members are classifying themselves as "small" and it should be noted that the linear projection of the growth of medium members is actually negative.

1997 APNIC Membership Growth
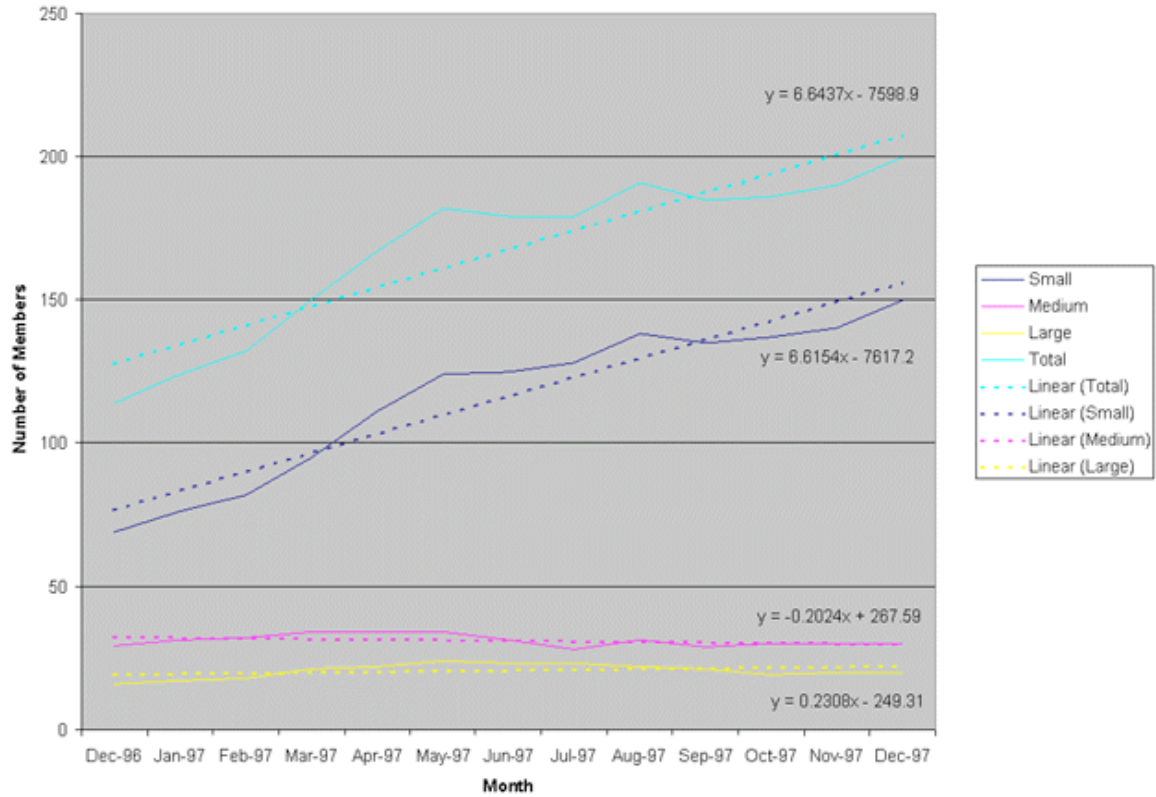
These membership figures are for all APNIC members, both regular and confederation members. Confederations are members composed of some number of autonomous sub-entities (called the confederation members) that are treated independently with respect to resource allocations, e.g., downstream service providers, geographically partitioned areas within a single service provider, national NICs serving service providers within a country, etc. At the end of 1997, APNIC had a total of 10 confederations, with the following distribution:

Self-determined "Size" Tier	Number of confederations
Large	7
Medium	2
Small	1

The number of individual members these confederations have is not available at this time, however efforts are underway to establish each confederation's membership as a result of the decision to assess per-confederation-member fees at the Kuala Lumpur APNIC meeting in July, 1997.

APNIC Executive Council

The APNIC Executive is elected by and acts on behalf of the APNIC membership. The main functions of the Executive Council are:

- to act on behalf of the Members in the interval between Annual General Meetings within the limits of the powers delegated to it by the Members;
- to manage the activities, functions and affairs of APNIC and the corporation;
- to exercise all such powers and do all such acts or things as may be required to be exercised or done by the corporation or the directors of the corporation, subject to the provisions of the Memorandum and Articles of Association of the corporation and to such requirements as may be prescribed by a resolution of the directors of the corporation;
- to take all steps to facilitate and implement the decisions of the Members at Annual General Meetings and, where appropriate, of the decisions of other meetings of APNIC;
- to consider broad Internet policy issues in order to ensure that APNIC's policies and strategies fully respond to the constantly changing Internet environment;
- to ensure the efficient coordination of the work of APNIC;
- to establish the basis for the budget of APNIC and determine a ceiling for the expenditure of APNIC until the next Annual General Meeting after considering all relevant aspects of the work of APNIC in that period;
- to provide any general directives dealing with the staffing of APNIC and, if necessary, fix the basic salaries, the salary scales and the system of allowances and pensions, if any, for all employees of APNIC;
- to elect the Director General.

At the APNIC meeting held in Hong Kong in January 1997, the APNIC membership elected Dr. Xing Li of Tsinghua University, China, and Dr. Srisakdi Charmonman of Assumption University and Internet KSC, Thailand to the APNIC Executive Council. These two individuals replaced Sanjaya of IndoInternet, Indonesia and B. A. C. Abeywardana of Electroteks Network Services, Sri Lanka whose appointed terms of 6 months had expired.

The Executive Council that currently holds office is composed of:

Geoff Huston, Telstra (Australia), Chair_

Jun Murai, Keio University, Treasurer

Tommi Chen, Netcentre Pty Ltd., Secretary

Srisakdi Charmonman, Assumption University and Internet KSC, Thailand

Xing Li, Tsinghua University, China

The executive council, which meets prior to APNIC meetings and conducts most business over electronic mail, addressed the following issues in 1997:

- Requests for waivers of APNIC membership fees, one of which was declined, the other still in the process of being decided;
- Whether to become a signatory to the IAHC gTLD Memorandum of Understanding, after which APNIC did become a signatory;
- Whether to allow non-AP region organization to become APNIC members, after which, the geographical restrictions were kept in force;
- How to implement the transition to the Confederation per-member fee plan, after which a five year phase in of the full US $2,000.00 per-confederation-member fees for grand-fathered confederations was agreed upon;
- Discussions on the restructuring of the IANA;
- Whether the Executive Council should make the final decision on whether an organization requesting the

xxNIC.NET domain is appropriate for delegation to occur after which the Executive Council agreed that it was their responsibility to make the decision;

- Whether APNIC should permit Access Media International to use the APNIC database to determine network contacts in order to implement a survey of Internet penetration in the Asia and Pacific Rim regions, after which permission was granted;

- Whether the APNIC Secretariat has the legal authority to implement policies without explicit approval of the Executive Council, after which the decision (based on the APNIC By-Laws and Membership agreement) was in the affirmative;

- Whether APNIC should contribute and/or support a survey of national top level domains in the AP region, after which the decision was in the affirmative;

- Whether APNIC should work with the United Nations Development Programme in promoting the deployment of the Internet in the Asia and Pacific Rim regions, after which the decision was in the affirmative;

At the APNIC meeting to be held in Manila, February 1998, three Executive Council seats, namely the seats held by Geoff Huston, Jun Murai and Tommi Chen will be up for election.

APNIC Secretariat

The APNIC Secretariat provides the logistical and administrative support for APNIC, operating as the executive arm to implement the decisions of the APNIC membership and Executive Council.

Staff

The APNIC Secretariat consisted of the following staff in 1997:

Title	Person	Status
Director General	David Conrad	Full-time
Business manager	Kyoko Day	Full-time
Hostmaster	Yoshiko Chong	Full-time
Administrative	Yoshiko Tobata	Full-time (Temporary)
Assistant	Natsuko_Minamisawa	Part-time(10 hours/pw)

The responsibilities for the major positions listed above are:

Director General

- to act as the chief executive officer of APNIC and the corporation;

- to have, subject to the provisions of the by-laws and to the direction of the Executive Council, the responsibility for the general management and control of the activities, functions and affairs of APNIC and the corporation and to perform all duties and have all powers which are commonly incident to the office of chief executive or which are delegated by the Executive Council;

- to execute all contracts, agreements and other instruments of the corporation which are authorized including affixing the Seal of the corporation;

- to appoint and have general supervision and direction of all of the other staff and agents of APNIC and the corporation, including but not limited to bookkeeping, accounting and treasury functions on behalf of the Treasurer;

- to implement strategic policies, prepare plans for APNIC, and to coordinate its activities, functions and affairs;

- to report to the Executive Council and to put forward resolutions for the consideration of the Executive Council;

- to take all the actions required to ensure the economic use of APNIC's resources and to be responsible to the

Executive Council for all the administrative and financial aspects of APNIC's activities;

- to act as the legal representative of APNIC and the corporation.
- to act as an ex-officio member of the Executive Council.

Business Manager

- to oversee overall bookkeeping and accounting related record keeping
- to prepare monthly and quarterly financial reports
- to close and adjust APNIC's financial books and assist annual audit
- to reconcile monthly financial statements
- to disburse payroll
- to provide membership information to new and prospective members
- to manage member accounts
- to evaluate overall cost/efficiency of the APNIC Secretariat

Hostmaster

- to receive and process all resource requests
- to review all resource requests, evaluating them for appropriateness and coherence
- to allocate resources according to existing Internet policies
- to register resources in APNIC databases
- to act as the primary liaison between APNIC and the membership on all issues related to the allocation of resources
- to assist in developing policies and procedures for the allocation of resources
- to maintain records of resource allocations and registrations

With the inclusion of the assistant positions, APNIC had 4.25 "full-time-equivalent" positions. In addition, the APNIC Secretariat has contracted out some development work, approximately 1.25 full-time-equivalent positions, for the development of software.

In comparison with APNIC's peers, APNIC's staff to member ratio at the end of 1997 is 36.36 to 1. This may be compared to RIPE-NCC with approximately 900 members and 36 staff (a ratio of 25 to 1) and ARIN with approximately 130 members and 14 staff (a ratio of 9.28 to 1). When comparing hostmaster ratios, APNIC has a hostmaster to member ratio of 200 to 1, whereas RIPE-NCC's ratio is 69.23 to 1 and ARIN's ratio is 21.66 to 1.

Facilities

APNIC is currently located at the following address:

> Tokyo Telecom Center
> East Building, 4th Floor, Mailbox 1017
> 2-35 Aomi, Koto-ku
> Tokyo 135-70_Japan

The office space at this location is approximately 35 square meters and is provided by the WIDE Project at no cost to APNIC. Within this office, APNIC has the following equipment:

> 1 Sun Sparcstation 20 workstation running SunOS 4.1.4
> 1 Sun Sparcstation 5 workstation running SunOS 4.1.4

2 Personal Computers running Microsoft Windows95

1 Personal Computer running Microsoft WindowsNT

2 Personal Computers running Unix

2 Printers (1 laser, 1 color inkjet)

1 Scanner

1 Fax machine

2 Tape drives (1 8mm, 1 6 cartridge DAT)

1 Router

APNIC also maintains a data center co-located with the "Network Service Provider Internet Exchange Point – 2" operated by the WIDE Project (also provided at no cost to APNIC). Within the APNIC co-location space, APNIC maintains:

2 Sun Sparcstation 5 servers running SunOS 4.1.4

2 PCs running Unix

1 Router

1 Access Server

In addition, APNIC owns 3 laptops running Windows95, one Macintosh laptop, and has 5 ISDN routers that provide remote dialup capability for APNIC's staff.

Of the equipment described above, Nippon Telegraph and Telephone have loaned the following to APNIC:

1 Sun Sparcstation 20

1 Sun Sparcstation 5

1 PC

3 ISDN routers

APNIC's data center is connected to the Internet at the NSPIXP-2 via an FDDI connection to a Digital Gigaswitch. APNIC maintains full routing and peers with ISPs at NSPIXP-2, currently receiving a total of approximately 52,000 routes. Transit services are provided by primarily by IIJ, WIDE, KDD. The various service machines located at APNIC's data center are interconnected with 10baseT Ethernet, however the capacity exists to upgrade to 100baseT should it prove necessary.

A WIDE 192 Kbps link between the NSPIXP-2 and a WIDE office situated next door to the APNIC office provides connectivity for the APNIC Secretariat office. In addition to the 192 Kbps link, APNIC has made use of an ISDN line to directly connect to the APNIC data center. Internally within the APNIC Secretariat office, connectivity between machines is provided via 10baseT. Security is provided via an IIJ provided Gauntlet firewall and via ingress and egress filters.