



ANNUAL REPORT 2000
Asia Pacific Network Information Centre





APNIC

“Addressing the challenge of responsible Internet resource
distribution in the Asia Pacific region.”



Highlights of 2000

The first standalone APNIC Open Policy Meeting

Special Interest Groups (SIGs) introduced

Hosting of ASO secretariat services

52% total membership growth

Significant policy updates



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Introduction

Dear APNIC Member

The past year was definitely an eventful year for the Internet. In spite of the slowdown which shook the industry during the year, 2000 was a year of sustained Internet infrastructure growth, especially in the Asia Pacific. In many economies of the region it was still the biggest year ever for the Internet.

For APNIC, 2000 was also our biggest year in terms of real and relative growth, and demand for APNIC services has never been higher. During the year, the Secretariat grew strongly in all dimensions: membership, services, staffing, infrastructure, and finances. I'm proud to say that in spite of this increasing external pressure and rapid internal growth during the year, APNIC was able to undertake more developmental work than ever before, while at the same time meeting its service level targets.



The process of capacity building at APNIC continues as we strive to become a more professional and effective service organisation. The APNIC staff has grown and low attrition rates have seen the accrual of invaluable hands-on experience, which we must work to retain. In the coming year, further development of staff skills will be a major priority.

During 2000, ongoing work on APNIC's internal systems allowed the deployment of new automated services (for both internal and external use), some of which will be released for production in early 2001. New service developments during the year included substantial work on the trial Certification Authority service, which saw digital certificates issued to various members during the APNIC meeting in October. Work on the Internet Routing Registry continued, and will see the deployment of an Asia-Pacific IRR service during 2001.

APNIC's strong focus on training and information dissemination continued during 2000, with training courses held in many countries, and associated public seminars held to increase general awareness of our work and responsibilities. In some cases, we joined forces with APTLD to provide comprehensive seminars on the subject of Internet Governance, an activity met with great interest by audiences throughout the region.

In the arena of Internet Governance, APNIC was active in various processes of ICANN and the ASO. We provided the Secretariat service to the ASO during 2000, and of course were involved in ongoing discussions concerning IANA processes, ICANN finances, our contract with ICANN, and related issues.

If 1999 represented a 'coming of age' for APNIC (as I suggested in the last annual report), then 2000 saw a further maturing of the organisation. In this 'early adulthood' of APNIC, our services are stable and we are conscientiously carrying out our core responsibilities. As we progress, however, it is time to look outward to examine the role of the organisation within the membership and the wider community, perhaps to seek a wider and more active role within those communities. Such developments do not represent a change from APNIC's original purpose, but are now possible and sustainable after many years of hard work.

In conclusion, I would like to thank personally all APNIC members for your support of the Centre, your ongoing support of the Secretariat, and your trust in me as Director General. I look forward very much to the year ahead and to working more closely with you in all aspects of APNIC's activities.

Sincerely

Paul Wilson
Director General



What is APNIC?

APNIC is one of three Regional Internet Registries (RIRs) currently providing allocation and registration services to support the operation of the Internet globally. It is a not-for-profit membership organisation, whose members determine the policies and direction of the organisation through open and consensus-based participatory processes.

What is APNIC's role?

Within the Asia Pacific region, APNIC is charged with ensuring the fair distribution and responsible management of IP addresses and the related numeric resources which are required for stable and reliable operation of the Internet globally. APNIC provides resource services, training and education, open policy meetings, and representation of regional community interests on the global stage.

APNIC serves the entire Asia Pacific region, comprising the following 62 economies* in Asia and Oceania.

Economies in the AP region

Afghanistan	Kiribati	Palau
American Samoa	Korea, Dem. People's Republic	Papua New Guinea
Australia	Korea, Republic of	Philippines
Bangladesh	Laos People's Dem. Republic	Pitcairn
Bhutan	Macau	Reunion
<i>British Indian Ocean Territory</i>	Madagascar	Samoa
Brunei Darussalam	Malaysia	Seychelles
Cambodia	Maldives	Singapore
China	Marshall Islands	Solomon Islands
Christmas Island	Mauritius	Sri Lanka
Cocos (Keeling) Islands	Mayotte	Taiwan
Comoros	Micronesia, Fed. States of	Thailand
Cook Islands	Mongolia	Tokelau
East Timor	Myanmar	Tonga
Fiji	Nauru	Tuvalu
French Polynesia	Nepal	Vanuatu
French Southern Territories	New Caledonia	Viet Nam
Guam	New Zealand	Wallis and Futuna Islands
Hong Kong	Niue	
India	Norfolk Island	
Indonesia	Northern Mariana Islands	Total economies: 62
Japan	Pakistan	Total with APNIC members: 37

Economies in bold are currently represented in the APNIC membership. Those in italics joined APNIC for the first time in 2000.

* Economies recognised within the Regional Internet Registry system are defined according to the International Standards Organization's coding system (ISO-3166).

How is APNIC structured?

APNIC's structure provides openness and transparency in all decision making processes. This structure comprises:

- Members, who vote on issues during Member Meetings and provide input through various channels throughout the year.
- APNIC Open Policy Meetings, where all interested parties may participate in knowledge sharing, networking, policy development, and training.
- An Executive Council (EC), elected by the members to represent them in a policy- and decision-making capacity between Member Meetings.
- A General Secretariat, APNIC's staff, which carries out the day to day work of the organisation.



A year of growth and consolidation

The evolving membership

In the Annual Report for 1999, APNIC reported that emerging patterns of membership growth required a review of membership categories. This was discussed at the Member Meeting in Seoul during March and a proposal was accepted to base the minimum membership category on the amount of IP address space held.

Growth over the course of 2000 proved the value of that decision. During the year, total memberships grew by a record 52 percent. Significantly, the distribution of memberships moved towards the larger categories.

In fact, the number of members grew by a 100 percent or greater in the medium, large, and very large categories, while the small member category grew by 32 percent.

The movement of members from lower to higher categories was largely due to mergers and acquisitions of ISPs and the expansion of existing members. In these circumstances, the new membership structure can be seen as consolidating APNIC's foundations and protecting the organisation's ability to provide quality service in an evolving business environment.

Membership proportion and growth by category

	1999 (% of Total)		2000 (% of Total)		Growth(%)
Very large	6	1.5	12	2.0	100
Large	20	5.1	52	8.6	160
Medium	58	14.6	125	20.8	116
Small	312	78.8	413	68.6	32
Total	396		602		52

Members by economy (top 10)

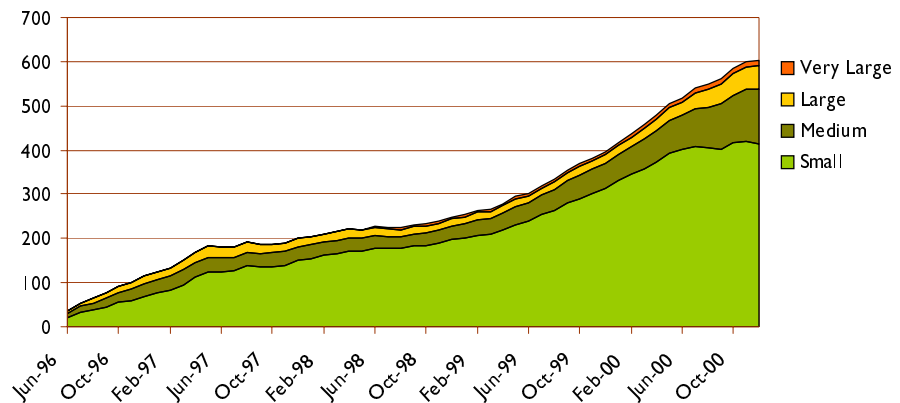
Economy	1999	2000
Hong Kong	60	116
Australia	90	107
India	43	79
Philippines	27	39
Taiwan	27	34
Singapore	13	32
*AP	26	16
Thailand	19	24
China	12	19
Malaysia	10	17

*Organisations with operations spanning many economies may elect to be designated Asia Pacific (AP)

On 31 December 2000, APNIC had 602 members in 37 economies across the region, a net gain of 206 members, or 52 percent for the year.

In terms of growth across the region, Hong Kong and India showed the largest increase, with 56 and 36 new members respectively. Three economies, Mauritius, Cook Islands, and British Indian Ocean Territories joined the APNIC membership ranks for the first time.

Membership growth since June 1996 (cumulative)





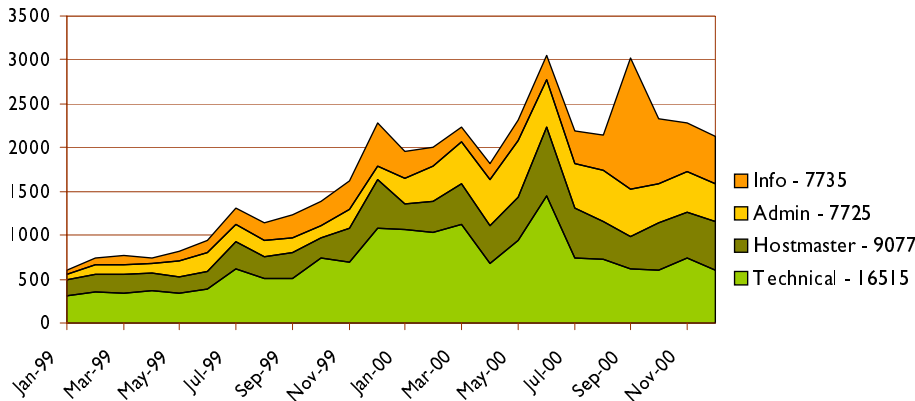
Capacity building

To meet the growing demand for services in 2000, APNIC increased its staffing levels. By the end of the year the staff numbered 22. Another round of recruitment is taking place in early 2001, which is expected to add a further five staff members.

The recruitment in early 2001 will provide the staff potential to handle future membership growth and to expand the range and value of services that APNIC is able to offer. Therefore, APNIC expects staffing levels to grow more slowly in the coming year.

In 1999, as the staff grew, APNIC was fortunate to be able to take over the lease on adjoining office space. Once again, in 2000, adjoining space became available, allowing for expansion without unnecessary expense or disruption.

Request tickets by queue 1999-2000 (monthly)



A new version of RT, the open source request tracking software used by APNIC, is currently under development, promising enhanced queue processing features for our staff in 2001. APNIC programmers have contributed several features to this development.

The diversity of APNIC's staff is remarkable, with more than a dozen of the region's nationalities and languages represented. In addition to this diversity, the harmony and spirit of the APNIC team is an achievement to be proud of, and one that is reflected in the high staff retention rate. In the coming year, development of the talents and expertise of existing staff will be a high priority, in order to maintain continuity and quality of service to members.

APNIC Open Policy Meetings

In response to member requests, APNIC held two meetings in 2000. The first, held in Seoul in early March, was presented as a conference 'track' within APRICOT. In Seoul, APNIC provided content throughout the week, featuring training and information sessions on technologies, policies, and procedures specific to Internet addressing.

In many ways, the most significant development for APNIC at that meeting was the introduction of Special Interest Groups (SIGs), to raise and discuss issues of policy and operations in specific areas. We also held several Birds of a Feather (BOF) sessions, which allow those with a common interest to participate in less formal discussions.

The culmination of the APRICOT week was the APNIC Member Meeting. With over 150 participants, the meeting achieved consensus on several important policy decisions (outlined below under *Policy development*).

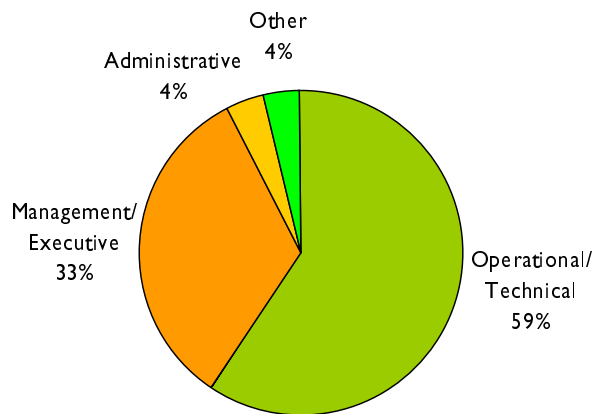
APNIC's involvement in Seoul, though more comprehensive than in previous years, continued our traditional association with APRICOT. But the second meeting for 2000 broke new ground for APNIC.



From 25 to 27 October, APNIC welcomed the Internet community to Brisbane for the first ever stand-alone Open Policy Meeting. Building and extending on the program from Seoul, the event attracted 168 members from 25 economies and generous international sponsorship.

As in Seoul, the Brisbane program featured training, tutorials, SIGs, BOFs, hostmaster consultation sessions, the Member Meeting, and social events. In addition, there was a plenary session, informational sessions held by the Address Supporting Organisation (ASO) of ICANN, and the ASO Address Council elections were held, in which Mr Seung-Min Lee of KRNIC was elected unopposed.

**10th Open Policy Meeting - Organisational roles of attendees
(based on evaluation forms received)**



The general consensus of participants seems to be that the meetings in Seoul and Brisbane were the most successful in APNIC's history. On the basis of that feedback, two meetings will again be scheduled for 2001, the first coinciding with APRICOT2001 in Kuala Lumpur. APNIC has called for proposals from organisations wishing to host the second meeting and it is expected that the venue will be announced during APRICOT2001.

The organisation of two major events is a very large administrative task and APNIC will recruit a dedicated events coordinator in early 2001.

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A presentation by Mr Akira Kato of the WIDE Project, Japan, during the 10th APNIC Open Policy Meeting, Brisbane, October 2000.

History of APNIC Open Policy Meetings

Meeting number*	Date	Location
1	1995 January	Bangkok, Thailand
2	July	Honolulu, USA
3	1996 January	Singapore
4	June	Montreal, Canada
5	1997 January	Hong Kong
6	June	Kuala Lumpur, Malaysia
7	1998 February	Manila, Philippines
8	1999 March	Singapore
9	2000 March	Seoul, Korea
10	October	Brisbane, Australia

* For ease of reference, APNIC Open Policy Meetings will now be numbered. The next meeting, to be held in Kuala Lumpur in conjunction with APRICOT2001 will be the 11th APNIC Open Policy Meeting.



Strategic development

APNIC's Strategic Plan

In 1999, APNIC undertook a strategic planning process that resulted in APNIC's first Strategic Plan, featuring a mission statement and a set of values, objectives, and strategies.

The results of this original process were reported in detail in the 1999 Annual Report. From the values and objectives originally identified, a set of 12 broad strategic areas were defined. The following section will report on APNIC's progress and activities in those areas.

With the benefit of an extra year's experience APNIC will review and refine the Strategic Plan in 2001.

An overview of APNIC's 1999/2000 Strategic Plan is available at <http://www.apnic.net/docs/stratplan/>

Automation

As APNIC grows, a major priority is the development of more efficient and consistent workflows and procedures. Automation of internal systems and external services is at the core of this strategy.

During 2000, significant resources were dedicated to the development and expansion of a software toolset to advance automation. Already applied to ASN and reverse DNS request processing in 1999, the toolset was expanded to include:

- an allocation manager for use by APNIC hostmaster staff
- an interface for managing membership information
- improved statistical reporting software
- an advanced system for parsing and validating IP address requests (currently in beta).

As the development of these automated resources progresses, APNIC will move towards establishing a members only website, 'MyAPNIC', which will allow members to access and manipulate their allocation and account information in a secure online environment. Work on this service has been flagged as a priority in 2001.

Certification

Closely related to the automation strategies is certification, with APNIC-issued certificates to be used to support encryption (for secure communications between APNIC and members) and digital signatures (for authentication of access to the web site, database, and other potential applications, such as electronic voting). It has also been proposed that future uses of certificate technology could include validating allocation entitlements, for example when accessing a routing registry.

In pursuit of this strategy, APNIC is developing a Certification Authority (CA) project, which was launched as a trial during the 10th APNIC Open Policy Meeting in Brisbane. The project, based on X.509 certificate technology, was greeted with great interest by the membership and APNIC has begun issuing certificates. Policy developments will be required in 2001 to take the CA project to the next step of production deployment and use.

Database consistency

During APNIC's evolution as a registry, allocation practices and policies, as well as systems for record maintenance, have changed. These changes, along with the normal errors that can occur in a manual system, have contributed to inconsistencies in internal and external databases. It is the goal of this strategy to resolve those inconsistencies.

Since 1999, as core data has been migrated to a single internal database, work has continued in manually checking database consistency. Such a process is time consuming and will continue into the next year. However, the benefits are significant and, when combined with automated tools, will include more accurate, consistent, and efficient reporting.



To this end, deployment of APNIC's new accounting package was ongoing throughout much of 2000 and, when complete, will fully integrate with other aspects of membership account information and allocation status. In conjunction with the CA project, this deployment will help to enable full access of members to their account details via the planned MyAPNIC web site.

Systems and online services

APNIC provides essential online services to the Internet community globally through its whois database, reverse DNS (in-addr.arpa) server, and web site. Therefore, APNIC must undertake ongoing monitoring, maintenance, and upgrading of online systems, to ensure continuity of reliable technical operations.

In response to community requests, APNIC started work in 2000 on a project to establish an Internet Routing Registry (IRR) to serve ISPs in the region. After considering available options, it was decided the new version of the RIPE Database (version 3.0, currently under beta-release) was the most suitable platform. The RIPE DB is able to carry all APNIC whois data, including objects supporting IRR functions in RPSL format. Also, this new version has undergone a total redesign and recoding and uses a RDBMS (SQL) back-end, allowing future development.

APNIC has assisted RIPE NCC in its development work so far, by porting the database code to SCO Unix and debugging portions of the beta-release source. RIPE NCC has expressed its appreciation for this help and we look forward to future cooperation on the project.

In order to establish a useful routing registry for the Asia Pacific region, APNIC will provide promotion and training, so that a critical mass of users can be established. These will be priority activities for this project in 2001. APNIC members who use other routing registries (such as Merit's) will be able to transfer to the APNIC IRR and maintain their records at no charge, as the IRR will become an APNIC member service.

Other systems developments in 2000 include:

- established a redundant backup link
- upgraded cluster capacity, enhancing system reliability
- upgraded web site security.

Documentation

The primary goal of this strategy is to ensure a comprehensive set of APNIC documentation that is accurate, accessible, consistent, and stylistically cohesive across the organisation. It is also important that documentation is developed and updated as part of an open, transparent, and participatory process.

A major initiative in 2000 was the commencement of the translation project. The project aims to build a store of APNIC documents translated into the major languages of the region. Members have been involved in the project from the start, so that a network of specialised translators can be developed within the region to support ongoing translation activities.

APNIC's primary policy document, *Policies for address space management in the Asia Pacific region* has now been published in Bahasa Indonesian, Japanese, Chinese (traditional characters), and Korean. Translation of other APNIC documents will follow in 2001.

Progress on APNIC's documentation strategy in 2000 also included:

- improvement and expansion of APNIC brochures
- development of an contextual help system for the new IPv4 request form (to be released in early 2001)
- progress of the document review policy
- employment of a web designer and a contractor to drive redevelopment of the APNIC web site and other on-line resources.



Membership

APNIC's continued sustainability depends on a membership and fee structure which provides stability, fairness, and reliable cost-recovery for all APNIC activities. As APNIC grows, it is important to ensure that the existing structures are appropriate to support that growth.

As was noted earlier in this report, at the APNIC Member Meeting in Seoul, the membership resolved to change the fee structure to remove the self-determination of membership category. The result is that each member's minimum category is now determined by their address holdings. The months that followed showed the benefits this restructure has brought, with consolidation of the higher membership categories and a consequent strengthening of APNIC's base.

Finally, it is worth noting that the discussions and development relating to membership structure took place within a context of continuing record growth. A 52 percent growth in the total membership for the year underlines the security of APNIC's current position.

Summary of new membership fee structure

Tier*	IPv6 addresses	IPv4 addresses	Annual Fee (US\$)
Small	up to /35	up to /19	2,500
Medium	>/35 up to /32	>/19 up to /16	5,000
Large	>/32 up to /29	>/16 up to /13	10,000
Very Large	>/29	>/13	20,000

* For members holding both IPv4 and IPv6 address space, the membership tier is assessed separately for each type of address space, as described above. The member's effective membership tier is then assessed as the larger of the two (meaning that initial IPv6 allocations will be free of charge to all existing members).

External communication

In pursuit of our objective of openness, transparency, and consensus-based decision-making, APNIC must maintain effective channels of communication with its membership and the broader community.

APNIC must work continually to ensure our services and activities remain consistent with the expectations of members and the community, are more widely understood, and continue to contribute to Internet development in the region.

As already noted in this report, one of the most significant developments in 2000 was the introduction of SIGs, to raise and debate issues of policy and operations in specific areas. Chaired by experts from the AP community, the SIGs are designed to seek general consensus (where appropriate) so that broader community views may be reported to the membership in the course of the general meeting. Related mailing lists also facilitate discussion of SIG topics throughout the year. Although refinement of the procedures, roles, and reporting of SIGs is still required, the framework of their operations has been very well received by the community.

Other important outreach and communication activities in 2000 included:

- cooperating with other Asia Pacific Internet organisations to present Internet governance seminars in conjunction with APNIC training courses (see *Member training*, below)
- contributing a regular APNIC column to the APIA newsletter
- APNIC staff participating in international Internet conferences and visiting members across the region
- recruiting for a dedicated Marketing and Communications Officer, to commence in early 2001.

A membership establishment fee of US\$1,000 is payable on joining APNIC and prior to receiving any resource allocations.

Ordinary ISP/LIR members of APNIC have access to allocation services at no charge.

APNIC conference participation 2000

AfriNIC

Capetown, South Africa

ARIN

Calgary, Canada
Washington, USA

China Inet 2000

Beijing, China

IETF

Adelaide, Australia
San Diego, USA

ICANN

Los Angeles, USA

INET

Yokohama, Japan
Los Angeles, USA

Internet Week & Global IPv6 Summit

Osaka, Japan

LACNIC

Buenos Aires, Argentina

RIPE

Budapest, Hungary
Amsterdam, Netherlands



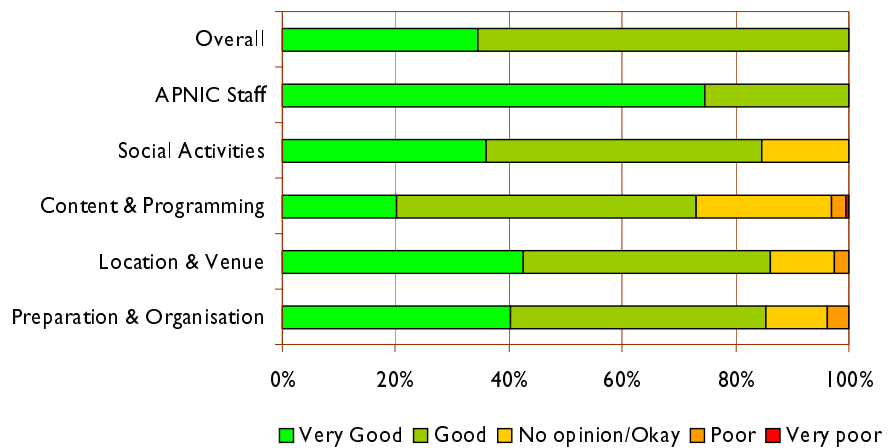
Membership surveys

The goal of this strategy is to make regular assessments of APNIC's performance by gathering data relating to member satisfaction and requirements across the whole range of APNIC activities and services. Analysis of this data will be used improve service delivery and set the future directions required by the membership and community.

All APNIC training courses conducted in 2000 were evaluated fully by means of participant questionnaires. The feedback received is compiled in a database that allows for focused reporting that is used to modify the course structure and content.

Participants at the Brisbane Open Policy Meeting were also surveyed and the results have been used in the planning and programming of the upcoming meetings.

General ratings - 10th APNIC Open Policy Meeting, Brisbane, October 2000



A presentation of the summary of the evaluations from the Brisbane meeting is available at <http://www.apnic.net/meetings/10/evaluation/>

Policy development

APNIC's services and operations depend on resource management policies that are developed by community consensus in the best interests of Internet development in this region. One of APNIC's most important responsibilities is to ensure that all policy development occurs through clear, open, and inclusive processes.

Once again, the introduction of SIGs is a significant enhancement to APNIC's policy making process. In the months leading up to each APNIC Open Policy Meeting, a call for proposals is issued to the community. Under the guidance of experienced chairs, the SIGs provide an opportunity for interested members of the community to present research, raise issues for discussion, or propose changes to policies and procedures. At the end of the Open Policy Meeting, SIG chairs report to the APNIC Member Meeting to inform members of progress or to recommend actions. Subsequent discussions can be continued on the publicly archived SIG mailing lists.

At the Seoul meeting in March 2000, the SIG process helped to secure member consensus on the following key policy developments:

- adopting a /20 minimum allocation (reduced from /19)
- commencing regular allocations from former class-A address space (currently 61/8)
- strongly encouraging (though not mandating) name-based hosting for web hosting providers, where technically feasible.

Following a three month notice period, these policy developments were implemented on 4 August 2000.



Education and reference resources

Despite changes in the Internet technologies, resource management, and administration over many years, it is clear that lack of awareness of current practices remains a problem both in this region and globally.

While recognising our limitations in influencing educational changes, APNIC seeks to use all practical means to provide structured informational resources to the public. Using the web site as the primary medium, APNIC is publishing FAQs, references, statistical reports, and other resources which could serve as a guide to current technology and policy.

Unfortunately, in 2000, recruitment difficulties delayed the development of some web-based resources. Despite the delays, however, the following informational documents have so far been published:

- Quick tips for requesting IP addresses
- Using the 'IP unnumbered' configuration
- Assignment window FAQ
- IPv6 FAQ.

In terms of statistical reporting, although the RIRs coordinate their activity reports, they have so far lacked a consistent approach for the exchange of Internet resource allocation data. Such data has been requested in meetings and through the ICANN process to assist with public efforts to analyse and understand the status of Internet resources. During the latter part of 2000, discussions started on the establishment of a specific consistent format for such data. This project will be developed in early 2001.

Member training

As a vital component of our strategic plan, the APNIC training programme provides specific training to members, which will help them to obtain resources from APNIC and manage these resources effectively and efficiently. It aims to assist members in their own activities and to create in the community a greater awareness of APNIC's role and responsibilities.

In 2000, APNIC more than doubled the previous year's training programme, holding 11 training courses in eight countries, for nearly 400 participants. Non-members are welcome to attend APNIC training courses; however, members will always receive priority bookings and subsidised course fees.

To add value to the training programme in 2000, APNIC worked with other organisations to present open seminars explaining APNIC's role and resource status, as well as topics such as Internet governance and global policy developments.

In August, APIA and APTLD combined with APNIC to host a seminar in Jakarta, which attracted more than 130 participants, including APJII and APNIC members, representatives of the Indonesian government, and many other industry partners. With the help of ISOC-NZ, APNIC and APTLD also presented a joint seminar in Auckland.

A new element was added to APNIC's training services in 2000, following negotiation with NIR members. In order to enhance the quality and consistency of NIR service across the region, APNIC agreed to train NIR hostmaster staff for extended periods. KRNIC and APJII each sent a hostmaster to the Secretariat office in Brisbane, where they received specialised APNIC hostmaster training and worked as APNIC hostmasters for the duration of their stay. It is expected that other NIRs will take advantage of this opportunity in 2001.

APNIC Training programme 2000

Training	Related activities
February	
Sydney, Australia	
Seoul, Korea	APRICOT 2001
March	
Guangzhou, China	Open CNNIC seminar
August	
Jakarta, Indonesia (x2)	Open APTLD & APIA seminar
September	
Hanoi, Vietnam	Open APNIC seminar
Bangkok, Thailand	
October	
Brisbane, Australia	APNIC Open Policy Meeting
November	
Auckland, New Zealand	Open APTLD & ISOC-NZ seminar
Seoul, Korea	KRNIC seminars
Taipei, Taiwan	



Liaison and cooperation with other organisations

APNIC recognises that coordinating with other Internet-related organisations and contributing to the activities of those that share our objectives can bring benefits to APNIC, its members, and the region in general.

The role of APNIC also extends beyond the region and involves APNIC representing regional concerns on the global stage. In 2000, APNIC provided secretariat services for the ASO's first year of operation. Development and maintenance of critical ASO resources, such as the web site, mailing lists, and teleconference facilities formed a significant contribution on APNIC's part. The secretariat duties were officially handed over to the RIPE NCC at the end of 2000, but APNIC will continue to perform an active role within the ASO and ICANN processes.

Legacy database transfer was a major initiative commenced in 2000, involving cooperation with the other RIRs to plan the redistribution of legacy address space records along geographical lines. Under this project, whois and in-addr records that are held by ARIN but which apply to networks or organisations in the Asia Pacific region will be transferred to APNIC for future management.

The project will benefit APNIC members and other organisations in this region that have had to maintain records in multiple databases in the past. These organisations will now have their records consolidated within the APNIC database. Transferring their records from the ARIN database also means these organisations will no longer have to comply with any non-member policies or potential charges which may apply in future.

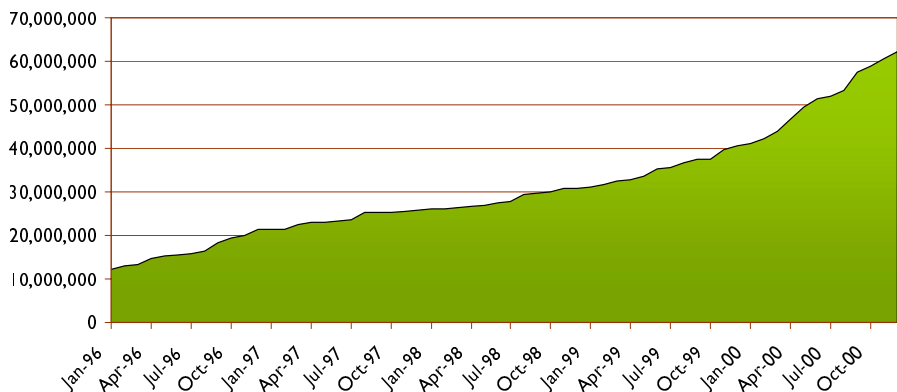
Other APNIC contributions to the greater Internet community during 2000 include:

- providing a conference track for APRICOT2000
- membership or financial support of key organisations such as ISOC, APIA, APNG, and APRICOT
- regular contributions to the APIA newsletter
- collaboration with APTLD, APIA, and ISOC in regional seminars
- ongoing coordination with other RIRs.

APNIC's ICANN related activities in 2000

- provided Address Supporting Organisation (ASO) secretariat services
- participated in ASO General Assembly, Budapest (hosted by RIPE NCC)
- coordinated election of Asia Pacific ASO ICANN Director (Dr Sang Hyun Kyong, Korea)
- coordinated election of Asia Pacific Address Council (AC) member (Mr Seung-Min Lee, Korea)
- cooperated with other RIRs on amendment of ASO Memorandum of Understanding
- hosted special AC workshop retreat in Brisbane in October
- participated in open forum meeting on ASO during ICANN meeting, Los Angeles.

Total IPv4 allocations (cumulative)





Resource status

IPv4

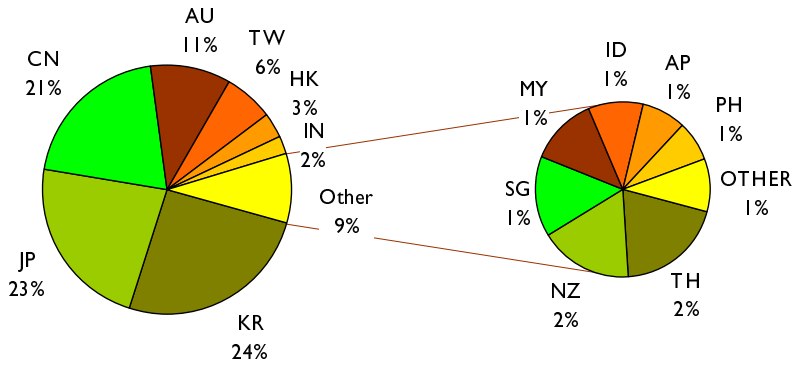
In August 2000, with membership approval, APNIC commenced making normal allocations from the former class-A address block 61/8. To date, there have been no reports of any difficulties resulting from the use of addresses from this range.

Following a lengthy application process, IANA allocated a new /8 IPv4 address range (218/8) to APNIC in December 2000.

IPv4 address space, allocated and free

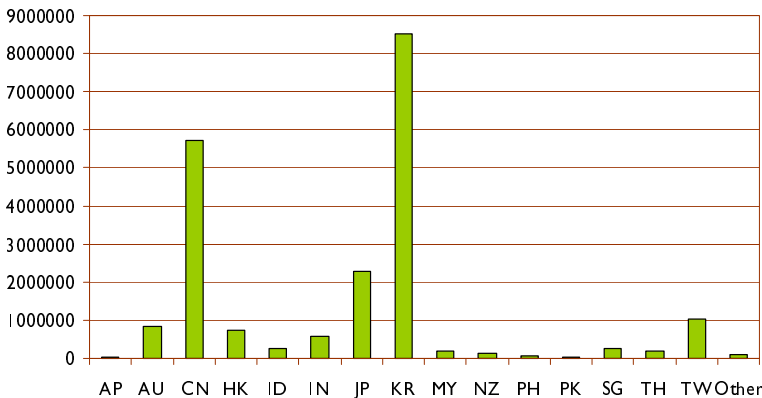
Network	Allocated	Total	% Allocated	% Free
061	7135232	16777216	42.53%	57.47%
169	0	1048576	0.00%	100.00%
202	13111040	16777216	78.15%	21.85%
203	12561152	16777216	74.87%	25.13%
210	14469120	16777216	86.24%	13.76%
211	14876672	16777216	88.67%	11.33%
218	0	16777216	0.00%	100.00%
Total	62153216	101711872	61.11%	38.89%

Distribution of IPv4 allocations by economy



Korea surpassed Japan in 2000 as the economy with the greatest total IPv4 allocations, largely due the expansion of Korean cable networks.

IPv4 Allocations by economy in 2000



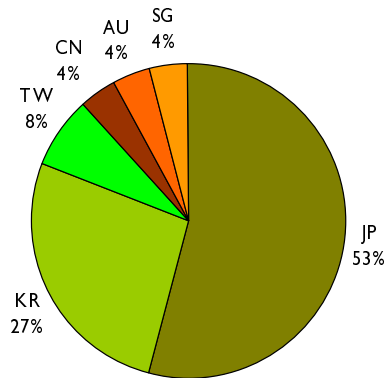


IPv6

APNIC made 15 IPv6 allocations in 2000, taking the total number for the APNIC region to 22. Development of the joint Registries IPv6 policy was a major topic of discussion at all RIR meetings and other forums over the course of the year. Much of the debate surrounded the issue of IPv6 assignment sizes. Representatives of the IASB/IESG presented recommendations to the various regional Internet communities for fixed standard assignment sizes; however, several issues remain unresolved and will be the subject of further scrutiny in 2001.

Total IPv6 allocations by region	
RIR	subTLAs
APNIC	22
ARIN	12
RIPE-NCC	24
Total	58

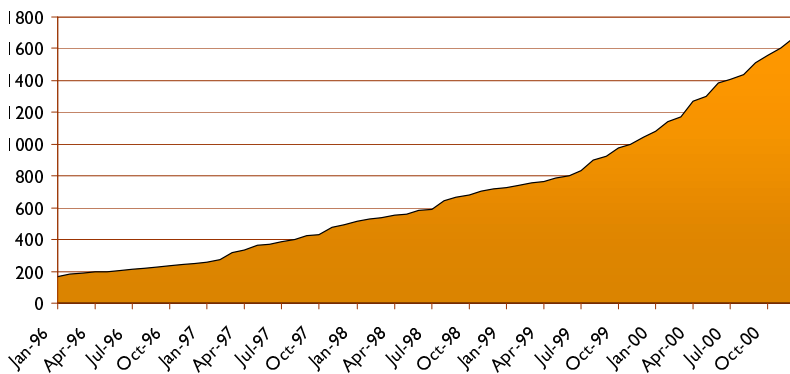
Distribution of IPv6 allocations by economy



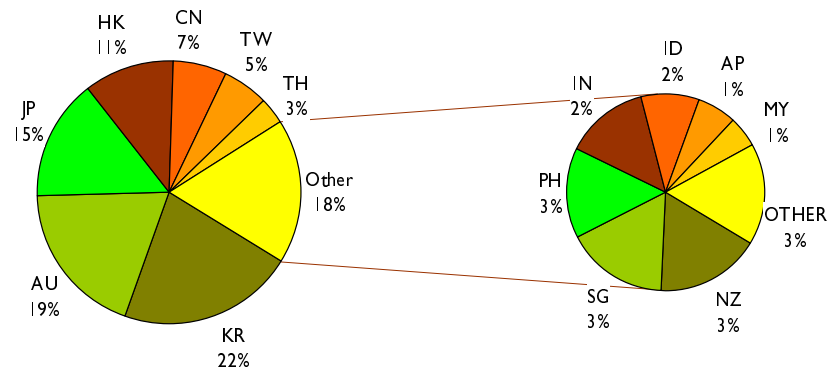
AS numbers

APNIC received an allocation from IANA of a further 1024 AS numbers (17408-18431) in August 2000. The consumption rate of AS numbers continues to accelerate. As is the case with IPv4 addresses, Korea holds the greatest total of AS number allocations.

Total ASN allocation (cumulative)



Distribution of ASN allocations by economy





Reverse delegation

APNIC's automated zone file generation system provided stable operation throughout 2000, meaning more efficient processing of reverse delegation requests than in the past. By the time of publication, the status of reverse delegation registrations was:

- total of 859 zone files
- total of 29,755 delegations
- approximately 1,500 delegations remain unchanged from when they were originally imported to the APNIC database in 1999.

Farewell to Paul Gampe



From the time of APNIC's relocation to Brisbane, Paul Gampe was instrumental in helping to grow APNIC into the professional, well equipped organisation it is today. As Technical Services Manager, his talents and hard work contributed greatly to the development of our essential infrastructure. Under his leadership, the APNIC technical services department developed a specialised team of programmers and technicians capable of providing high quality service to the membership.

In late 2000, Paul announced his intention to move on, to take up a position with Red Hat in the new year. Although sorry to see him go, all APNIC staff and members wish him well in his new employment, and look forward to his continued support of the regional community through his participation in APNIC SIGs.



Financial reports

Consolidated statement of financial accounts

	Year end 2000 (US\$)	Year end 1999 (US\$)	% change from 1999
	0.5479*	0.6422*	
Current Assets			
Cash	2,820,996	1,609,398	75%
Receivables	302,662	164,501	84%
Advance payment	14,201	2,820	404%
Other	29,062	740	3828%
Total current assets	3,166,921	1,777,459	78%
Non-Current Assets			
Investment	416,355	0	100%
Property, plant, and equipment	259,075	164,366	58%
Total non-current assets	675,431	164,366	311%
Total Assets	3,842,352	1,941,825	98%
Current Liabilities			
Accrued expenses	159,380	33,351	378%
GST withholding	5,532	2,423	128%
Provisions	97,466	22,370	336%
Unearned revenue	1,348,212	735,415	83%
Total Liabilities	1,610,589	793,559	103%
Equity			
Share capital	1.55	1.64	-6%
Retained earnings	2,231,761	1,148,264	94%
Total Equity	2,231,763	1,148,266	94%
Total Liabilities & Equity	3,842,352	1,941,825	98%

Notes:

PriceWaterhouseCoopers audited the financial reports of APNIC for the financial year ended 31 December 2000. The audit was conducted in accordance with Australian Auditing Standards.

*The amounts in the financial reports are expressed in US\$. The foreign currency exchange rate used to convert AU\$ amounts to US\$ was AU\$0.5479/US\$1.00, based on the December average rate provided by the Australian Taxation Office.



Consolidated statement of activities

	2000 in US\$	1999 in US\$	% change from 1999
	0,5479	0,6422	-15%
Revenue			
Membership fees	2,192,636	1,323,668	66%
Non-member fees	47,099	20,698	128%
Start-up fees	238,548	168,870	41%
Sundry income	30,277	0	100%
Interest received	125,861	44,485	183%
Exchange rate gain/(loss)	98,651	14,822	566%
Total Revenue	2,733,073	1,572,543	74%
Expenditure			
APIA	10,000	10,000	0%
APNG	10,000	10,000	0%
APRICOT	35,033	22,360	57%
ISOC	48,990	25,650	91%
Communication expenses	44,199	24,251	82%
External training	18,358	11,248	63%
Meeting expenses	70,949	11,148	536%
Rent	45,493	21,268	114%
Salaries	600,489	432,723	39%
Other operating expenses	513,648	262,170	96%
Depreciation	63,112	55,217	14%
Total Expenditure	1,460,272	886,035	65%
Operating Surplus/(Loss)	1,272,801	686,507	85%

Notes:

Revenue grew 74 percent since 1999, with the actual amounts higher than projected in all revenue categories. The rate of membership growth for 2000 was the highest since APNIC introduced memberships in June 1996. For the first time, sponsorship was sought for the APNIC Open Policy Meeting and the sponsorship fees received are included in 'sundry income.' Additionally, foreign currency exchange rates were favourable to APNIC throughout the year, as indicated in 'exchange rate gain.'

On the other hand, total expenditure grew only 65 percent since 1999. APNIC receives the majority of its revenue in US dollars, but the majority of its expenditure is in AU dollars. Therefore, the favourable exchange rates helped to keep operating costs low. As a result, the operating surplus for the year was up 85 percent from 1999.

APNIC continues to support regional Internet-related organisations such as APIA, APNG, and APRICOT. In 2000, APNIC joined ISOC's new 'platinum sponsorship' program. It should be noted that under this program, APNIC is able to direct that its contributions be used in a specific area of development, such as RFC, IETF, IESG, IAB, or IRTF.



Consolidated statement of cash flow

For the year ended 31 December 2000

	2000 (US\$)	1999 (US\$)
Cash flows from operating activities:		
Net operating surplus	1,272,801	686,507
Depreciation expenses	63,112	55,217
Interest received	(125,861)	(44,485)
Increase in Accounts Receivable	(138,161)	(35,936)
Increase in Other Assets	(39,703)	(3,513)
Increase in Accounts Payable & Other Liabilities	204,233	(6,192)
Increase in Unearned Revenue	612,797	241,222
Net cash inflow from operating activities	576,416	206,314
Cash flows from investing activities:		
Investment	(416,355)	0
Payments for Equipment/Furniture/Office Improvement	(157,821)	(88,302)
Net cash outflow from investing activities	(574,177)	(88,302)
Net increase in cash held:	1,275,041	804,519
Cash at the beginning of the financial year	1,609,398	774,412
Effects of exchange rate changes on cash	(63,443)	30,467
Cash at the end of the financial year	2,820,996	1,609,398

Notes:

In summary, APNIC's financial performance in 2000 exceeded expectations. The factors noted above, particularly the combination of strong membership growth and favourable exchange rates during 2000, helped APNIC continue to maintain the cash reserve directed by Executive Council.

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