

APNIC Membership Fee Structure Proposal

Proposal v 2.3, December 2006

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1 Introduction

This paper proposes a new membership fee structure for APNIC. It presents the rationale for a new structure, the elements of a new structure, a proposed new structure, and the next steps required to develop a final proposal for consideration by the APNIC membership. The proposal is based on the outcomes of discussions during the APNIC 21 and APNIC 22 meetings.

This paper presents a specific fee structure, but it is proposed that there be a series of formal membership votes on the separate elements of the structure, prior to establishing the final fee structure.

2 Rationale

In this section, the principles for revision of the APNIC membership fee structure are restated.

2.1 Overall revenue stability

The current APNIC fee structure has been in place since 1996. Additional membership categories have been added, but existing fee levels and NIR fees have remained constant. There has been no adjustment for the effects of inflation or foreign exchange variations over this period.

For 4 years APNIC has operated on balanced budgets with no operational surplus. At the same time, operational activities and services have increased, most often in direct response to member requests, open policy meetings and formal member survey activities. In 2006, APNIC's annual budget plans for a small deficit, for the first time in many years. Future deficits will erode APNIC's capital reserve and restrict our ability to provide needed services in future. It is proposed that under the new fee structure, overall APNIC revenue should be stabilised, and adjusted for the effects of inflation and devaluation of the US dollar.

The proposed fee structure produces no change in expected APNIC revenues. Alternatively, it has been suggested that it should be designed to produce an increase, compensating for inflation and foreign exchange fluctuations.

It is also proposed to allow limited adjustments to annual fees, based on annual review of APNIC budget and activities by the APNIC Executive Council.

2.2 Annual fee calculation

The proposed new fee structure has an annual fee based on IP address holdings, like the current structure. Currently, the annual membership fee doubles with each additional 3 bits of IPv4 address space, starting at a fee of US \$1250 for a /22.

Under the new structure, the annual membership fee would double with each additional 2 bits of IPv4 space, starting with a fee of US \$400 per annum for members holding a /24. In the case of IPv6, the fee would double with each 4 bits, from a minimum level of \$400 for a /48 holding.

Under the current tiered structure, large increases in fees can be incurred as a result of small allocations or transfers of address space. This can create a disincentive for the proper management of address space in such cases.

The new structure proposes a continuous formula which calculates fees on the basis of total address holdings, without the use of defined “tiers”.

2.3 NIRs

Under the current fee structure, NIRs pay a one-off “per address” fee for each address allocation. This can result in very large payments to APNIC; for instance, a /10 allocation to a very large NIR member incurs a one-off fee of \$83,886.08. NIRs also pay annual fees according to total address allocations, according to the same system as normal APNIC members. Therefore under the current fee structure, most NIRs pay the maximum annual fee of \$40,000, even though they may provide services to hundreds of ISPs.

This NIR fee structure is problematic for both APNIC and the NIRs themselves, because of the high and unpredictable allocation fees, and the low annual fees. It has long been agreed that this fee structure should be changed as soon as practicable.

Under the new structure, NIR fees would be assessed according to individual ISP address holdings, using the same fee structure as regular members. An overall discount would be provided in recognition of services provided by the NIR.

Under the new structure, NIR per-address fees would be abolished.

2.4 Fairness for large and small members, and LDCs

The current APNIC fee structure favours large members, whose effective cost per address is much lower than that of small members. As shown here, an APNIC member holding a /20 incurs an effective annual cost per address which is 256 times higher than that of a member holding a /8:

| IPv4 Prefix | IPv4 Addresses | Annual Fee | Annual cost per address |
|-------------|----------------|------------|-------------------------|
| 20 | 4096 | 2500 | \$0.610 |
| 12 | 1048576 | 20000 | \$0.019 |
| 8 | 16777216 | 40000 | \$0.002 |

Also, it has been suggested that the current fee levels are too high for organisations in the least developed countries of the region.

The proposed fee structure provides a wider range of fee levels, and incorporates lower “entry level” fees for small address space holdings.

The proposal also provides a discount of 50% for members located in the Least Developed Countries (LDCs) of the region, and where allocated address space is used in those countries. LDCs are defined by the United Nations OHRLLS and listed at:

<http://www.un.org/special-rep/ohrls/ldc/list.htm>

2.5 Non-Member and Historical resource holdings

Currently APNIC’s non-member resource holders, and holders of historical address space, are charged under a structure which is quite different from the membership fee structure.

It is proposed that non-members and historical resource holders should be charged under the same fee structure as APNIC members holding “current” resources. .

2.6 Voting entitlements

Currently APNIC members are entitled to exercise voting rights in direct proportion with their annual fee contributions to APNIC. It is not proposed to change this aspect of the APNIC membership structure.

3 Proposed Fee Structure

3.1 Fee assessment for IPv4 address space

The new fee structure would calculate annual fees from IPv4 holdings as follows.

| Prefix | Addresses | Member | NIR Member |
|--------|-----------|-----------|------------|
| 6 | 67108864 | \$204,800 | \$102,400 |
| 8 | 16777216 | \$102,400 | \$51,200 |
| 10 | 4194304 | \$51,200 | \$25,600 |
| 12 | 1048576 | \$25,600 | \$12,800 |
| 14 | 262144 | \$12,800 | \$6,400 |
| 16 | 65536 | \$6,400 | \$3,200 |
| 18 | 16384 | \$3,200 | \$1,600 |
| 20 | 4096 | \$1,600 | \$800 |
| 22 | 1024 | \$800 | \$400 |
| 24 | 256 | \$400 | \$200 |
| None | 0 | \$200 | \$100 |

The proposed new structure is based on a continuous formula however, so that the existing membership tiers are abolished, and intermediate address space holdings result in annual fees at the corresponding intermediate levels.

3.2 Fee assessment for IPv6 address space

Under the proposed fee structure, membership fees for IPv6 address space would be calculated as follows, also using a continuous formula:

| Prefix | Addresses | Member | NIR Member |
|--------|-------------|-----------|------------|
| 12 | 68719476736 | \$204,800 | \$102,400 |
| 16 | 4294967296 | \$102,400 | \$51,200 |
| 20 | 268435456 | \$51,200 | \$25,600 |
| 24 | 16777216 | \$25,600 | \$12,800 |
| 28 | 1048576 | \$12,800 | \$6,400 |
| 32 | 65536 | \$6,400 | \$3,200 |
| 36 | 4096 | \$3,200 | \$1,600 |
| 40 | 256 | \$1,600 | \$800 |
| 44 | 16 | \$800 | \$400 |
| 48 | 1 | \$400 | \$200 |
| None | 0 | \$200 | \$100 |

3.3 Members with IPv4 and IPv6 address space

For members holding both IPv4 and IPv6 address space, the applicable membership fee is calculated separately for IPv4 and IPv6, and the larger of those fees is then assigned to the member. This should be regarded as an extension of the current interim policy for members with IPv6 address holdings and subject to change in future.

4 Impact Assessment

4.1 Regular APNIC members

As at 1 November 2006, APNIC has 1324 regular members excluding NIRs. The current address holdings of those members is known, and their effective annual fees can be calculated as follows, for the current and proposed (new) fee structures.

| Impact – Regular Members | | Total | Total |
|--------------------------|-------------|--------------------|--------------------|
| Prefix | Count | Current | New |
| 6 | 1 | \$40,000 | \$164,916 |
| 8 | 1 | \$40,000 | \$83,935 |
| 9 | 3 | \$120,000 | \$176,864 |
| 10 | 1 | \$20,000 | \$37,523 |
| 11 | 6 | \$120,000 | \$176,941 |
| 12 | 15 | \$300,000 | \$321,089 |
| 13 | 16 | \$160,000 | \$251,432 |
| 14 | 28 | \$280,000 | \$298,348 |
| 15 | 36 | \$360,000 | \$274,990 |
| 16 | 69 | \$345,000 | \$392,015 |
| 17 | 59 | \$295,000 | \$236,328 |
| 18 | 90 | \$450,000 | \$253,075 |
| 19 | 228 | \$570,000 | \$479,052 |
| 20 | 256 | \$640,000 | \$383,802 |
| 21 | 224 | \$560,000 | \$227,942 |
| 22 | 65 | \$81,250 | \$49,650 |
| 23 | 60 | \$75,000 | \$33,375 |
| 24 | 72 | \$90,000 | \$28,800 |
| None | 94 | \$58,750 | \$17,000 |
| | 1324 | \$4,605,000 | \$3,887,078 |

4.2 NIRs

APNIC currently has 6 NIRs, most of which hold address space which has been previously allocated to ISPs in their economies. Like other APNIC members, their membership fee would continue to be calculated according to their “pooled” address holdings:

| Impact – NIRs | | Total | Total |
|---------------|----------|------------------|------------------|
| Prefix | Count | Current | New |
| 6 | 1 | \$40,000 | \$161,834 |
| 7 | 1 | \$40,000 | \$127,795 |
| 8 | 1 | \$40,000 | \$81,904 |
| 9 | 1 | \$40,000 | \$53,671 |
| 12 | 1 | \$20,000 | \$18,914 |
| 15 | 1 | \$10,000 | \$7,332 |
| | 6 | \$190,000 | \$451,453 |

Under the new structure, NIRs may be able to maintain their address pools, or they may distribute authority for individual address holdings to individual ISPs within their service areas.

4.3 Members of NIRs

Under the direct allocation system, details are known of those members of NIRs to whom allocations have been made, and fees can be calculated as follows:

| NIR | Number | Fee |
|--------------|---------------|--------------------|
| CNNIC-CN | 142 | \$381,905 |
| IDNIC-ID | 91 | \$67,094 |
| JPNIC-JP | 226 | \$429,936 |
| KRNIC-KR | 85 | \$285,604 |
| TWNIC-TW | 38 | \$95,821 |
| VNNIC-VN | 21 | \$30,352 |
| Total | 603 | \$1,290,713 |

Note that these fees incorporate the proposed discount of 50% for members of NIRs.

4.4 Impact – APNIC Revenue

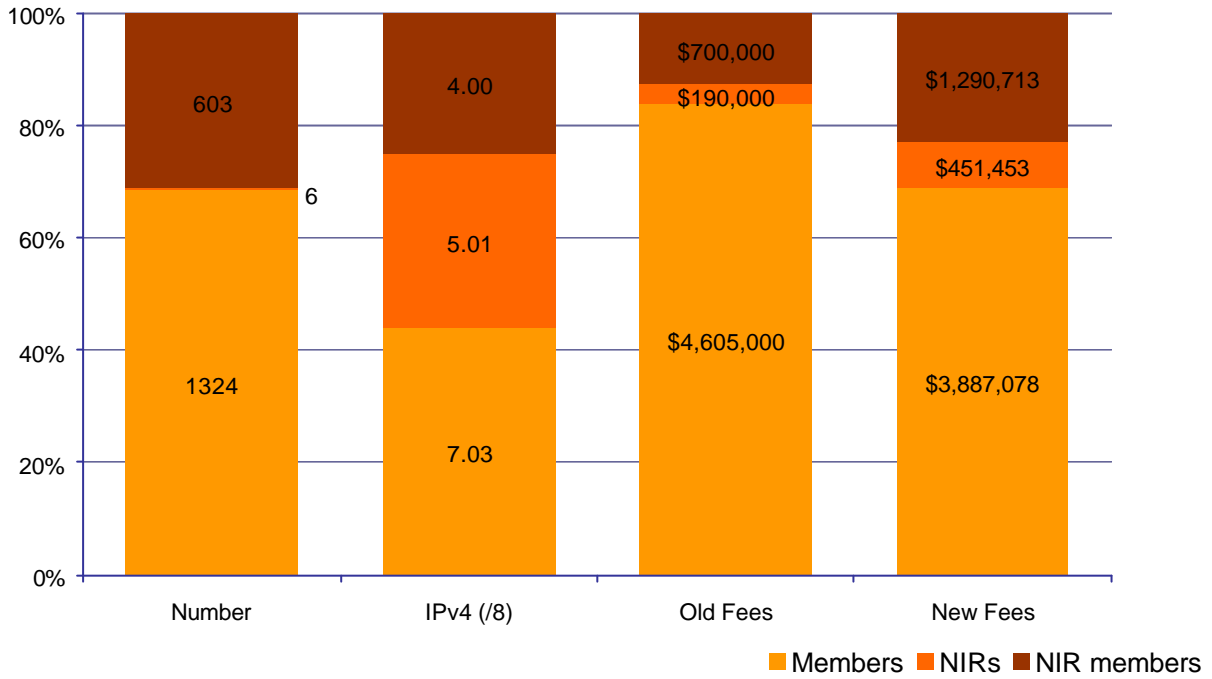
The following table summarises the impact of the fee structure change on APNIC revenues from each category.

| | Number | IPv4 (/8) | Current Fees | New Fees | Increase |
|--------------|---------------|------------------|---------------------|--------------------|-----------------|
| Members | 1324 | 7.03 | \$4,605,000 | \$3,887,077 | -16% |
| NIRs | 6 | 5.01 | \$190,000 | \$451,453 | 138% |
| NIR members | 603 | 4.00 | \$850,000 | \$1,290,712 | 52% |
| Total | 1933 | 16.04 | \$5,645,000 | \$5,629,242 | 0% |

* The current 2006 budget estimate for NIR per address fees is approximately \$850,000. This would be replaced under the new structure by annual fees charged to NIR members.

4.5 Impact Analysis

The following graph illustrates the current distribution of APNIC members, NIRs and NIR members, with the proportional consumption of IPv4 address space, and total fee contributions under the current (old) and proposed (new) fee structures.



5 Next Steps

The new APNIC fee structure which is proposed here involves a number of specific changes to the current structure. In order to develop a final fee structure proposal, each of these changes could be put to a formal vote of the APNIC membership (either during the coming APNIC meeting in Bali, or by online vote using MyAPNIC).

| | | |
|----|--|---|
| 1 | Under the new APNIC fee structure, annual membership fees will double for each 2-bit increment in IPv4 address space holdings, and each 4-bit increment in IPv6 holdings. | <input type="radio"/> Yes <input type="radio"/> No |
| 2 | Under the new APNIC fee structure, a continuous formula will be used in place of the current “tiered” system. | <input type="radio"/> Yes <input type="radio"/> No |
| 3 | Under the new APNIC fee structure, the per-address fees for NIRs will be abolished. | <input type="radio"/> Yes <input type="radio"/> No |
| 4 | Under the new APNIC fee structure, members of NIRs will be charged annual fees according to the same annual fee structure as regular members. | <input type="radio"/> Yes <input type="radio"/> No |
| 5 | Under the new APNIC fee structure, fees paid by members of NIRs will be discounted in recognition of the services provided by the NIR. Nominate the size of this discount. | <input type="radio"/> 0% <input type="radio"/> 25% <input type="radio"/> 50% |
| 6 | Under the new APNIC fee structure, there will be a discount for members based in least developed countries. Nominate the size of this discount. (see http://www.un.org/special-rep/ohrls/ldc/list.htm) | <input type="radio"/> 0% <input type="radio"/> 25% <input type="radio"/> 50% |
| 7 | Under the new APNIC fee structure, historical address space holdings will be included in fee calculations for all address holders. | <input type="radio"/> Yes <input type="radio"/> No |
| 8 | Under the new APNIC fee structure, non-members will be charged according to the same annual fee structure as members. | <input type="radio"/> Yes <input type="radio"/> No |
| 9 | Under the new APNIC fee structure, the new structure should produce an expected increase in total APNIC revenues, to compensate for the effect of inflation since 1996. Nominate the size of this increase. | <input type="radio"/> 0-5% <input type="radio"/> 5-10% <input type="radio"/> 10-15% |
| 10 | Under the new APNIC fee structure, the base level of APNIC fees should be subject by adjustment of up to 5% per year, by decision of the Executive Council. | <input type="radio"/> Yes <input type="radio"/> No |