

APNIC Membership Fee Structure Proposal – APNIC 22

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1 Introduction

This paper introduces a proposed new membership fee structure for APNIC, for discussion during the APNIC 22 meeting. The proposed structure is similar to the one discussed during the APNIC 21 meeting in Perth, Australia. Some refinements have been introduced as a result of discussions and feedback since that presentation.

The proposed structure includes fees for regular APNIC members and for NIR members, and removes the existing “per address” fee for allocations to NIRs. It should still be considered as a “candidate” structure, presented for discussion rather than for a final decision at APNIC 22.

The new structure is proposed for introduction from 1 January 2008.

2 Rationale

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

2.1 Overall revenue maintenance

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. For 4 years APNIC has operated on balanced budgets with no operational surplus. At the same time, operational activities and services have increased, as have outreach, training, information and related activities. With ongoing growth APNIC’s annual result may be in deficit during 2006, which will erode APNIC’s capital reserve and restrict our ability to provide needed services in future.

Under any new fee structure, overall APNIC revenue should be maintained, and adjusted for the effects of inflation and devaluation of the US dollar. The proposed fee structure is designed to increase overall APNIC revenue by at least 10-15%, based on current membership numbers.

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 address space, starting at a fee of \$1250 for a /22.

Under the new structure proposed here, the annual membership fee doubles with each additional 2 bits, starting with a fee of \$360 per annum for members holding a /24.

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 relatively low annual fees. It has long been agreed that this fee structure should be changed as soon as practicable.

Under the new structure members of NIRs would pay annual fees according to the same fee structure as regular members, but with an overall discount, in recognition of services provided by the NIR. The discount level proposed in this discussion paper is 50%.

Also, NIR per-address fees are abolished completely under this proposal.

2.4 Fairness for large and small members

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 level for small members is too high for small companies, particularly in developing countries.

The proposed fee structure provides a much wider range of fee levels, and incorporates lower “entry level” fees for small address space holdings. It reduces the existing difference in “effective cost per addresses” between large and small members.

2.5 Voting

Under the proposed new structure, members of NIRs would be entitled to join APNIC as members, and to vote directly in APNIC membership votes. Voting entitlements would be assigned to those members in proportion to the fees paid.

NIRs themselves would continue to maintain membership status and pay fees in accordance with their historical address holdings (i.e. those addresses allocated directly to NIRs prior to the current “direct allocation” system).

3 Proposed Fee Structure

3.1 Tier assessment for IPv4 address space

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

Prefix	Tier	Member	NIR Member
>10	I	92160	46080
10	H	46080	23040
12	G	23040	11520
14	F	11520	5760
16	E	5760	2880
18	D	2880	1440
20	C	1440	720
22	B	720	360
24	A	360	180

According to this table, a member with total address holdings of greater than /18 but less than or equal to /16 would be designated as “Tier E” with an annual fee of \$5760. If that member is serviced by an NIR, then its fee is reduced by 50% to \$2880. A member holding more than a /10 in total is designated as “Tier I” with an annual fee of \$92160 (or \$46080 if served by an NIR).

3.2 Tier assessment for IPv6 address space

Under the proposed fee structure, membership tiers for IPv6 address space would be calculated as follows:

Prefix	Tier	Member	NIR Member
>20	I	92160	46080
20	H	46080	23040
24	G	23040	11520
28	F	11520	5760
32	E	5760	2880
36	D	2880	1440
40	C	1440	720
44	B	720	360
48	A	360	180

3.3 Members with IPv4 and IPv6 address space

For members holding both IPv4 and IPv6 address space, the applicable membership tier is calculated separately for IPv4 and IPv6, and the larger of those tiers is then assigned to the member.

4 Impact Assessment

4.1 Regular APNIC members

As at 1 August 2006, APNIC has 1266 regular members excluding NIRs. The current address holdings of those members is known, and their effective membership tier and annual fees can be calculated as follows, for the current and proposed (new) fee structures.

Impact - Members					Total	Total
Prefix	Count	New	Current	Increase	New	Current
6	1	92160	40000	52160	92160	40000
8	1	92160	40000	52160	92160	40000
9	3	92160	40000	52160	276480	120000
10	1	46080	20000	26080	46080	20000
11	4	46080	20000	26080	184320	80000
12	14	23040	20000	3040	322560	280000
13	18	23040	10000	13040	414720	180000
14	23	11520	10000	1520	264960	230000
15	39	11520	10000	1520	449280	390000
16	64	5760	5000	760	368640	320000
17	52	5760	5000	760	299520	260000
18	91	2880	5000	-2120	262080	455000
19	230	2880	2500	380	662400	575000
20	253	1440	2500	-1060	364320	632500
21	200	1440	2500	-1060	288000	500000
22	62	720	1250	-530	44640	77500
23	58	720	1250	-530	41760	72500
24	62	360	1250	-890	22320	77500
None	90	180	625	-445	16200	56250
Total	1266				4512600	4406250

4.2 NIRs

APNIC currently has 6 NIR members, most of which hold address space which has been previously allocated to ISPs in their economies. Like other NIR members, their membership tier and annual membership fee is calculated according to these address holdings:

Impact - NIRs					Total	Total
Prefix	Count	New	Current	Increase	New	Current
6	1	92160	40000	52160	92160	40000
7	1	92160	40000	52160	92160	40000
8	1	92160	40000	52160	92160	40000
9	1	92160	40000	52160	92160	40000
12	1	23040	20000	3040	23040	20000
15	1	11520	10000	1520	11520	10000
Total	6				403200	190000

4.3 Members of NIRs

Under the direct allocation system, APNIC secretariat has details of those members of NIRs to whom allocations have been made, and can assess their effective membership tiers, as follows:

NIR	A	B	C	D	E	F	G	H	I	Total
CNNIC-CN		1	40	33	26	19	5	2		126
IDNIC-ID		2	70	6	4					82
JPNIC-JP	12	6	83	61	22	18	7	2	1	212
KRNIC-KR		2	4	24	29	6	4	2	1	72
TWNIC-TW		1	12	9	4	4	1	1		32
VNNIC-VN	3	2	7	2	2	2	1			19
Total	15	14	216	135	87	49	18	7	2	543

From these figures, effective annual member fees can be calculated, as follows. Note that these fees incorporate a discount of 50% for members of NIRs.

NIR	A	B	C	D	E	F	G	H	I	Total
CNNIC-CN		360	28800	47520	74880	109440	57600	46080		364680
IDNIC-ID		720	50400	8640	11520					71280
JPNIC-JP	2160	2160	59760	87840	63360	103680	80640	46080	46080	491760
KRNIC-KR		720	2880	34560	83520	34560	46080	46080	46080	294480
TWNIC-TW		360	8640	12960	11520	23040	11520	23040		91080
VNNIC-VN	540	720	5040	2880	5760	11520	11520			37980
Grand Total	2700	5040	155520	194400	250560	282240	207360	161280	92160	1351260

4.4 Impact – APNIC Revenue

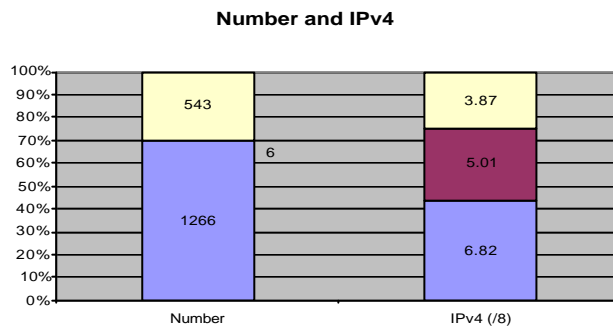
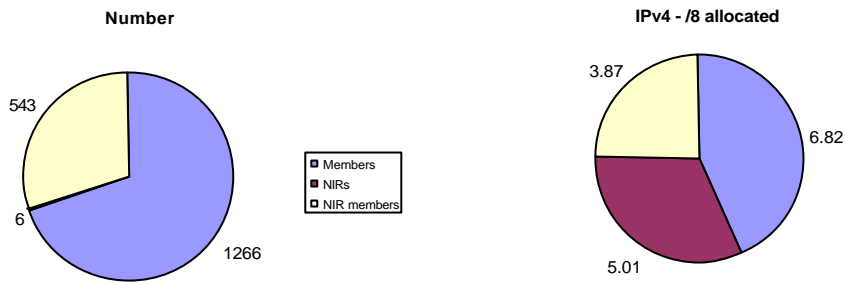
The following table summarises the impact of the fee structure change on APNIC revenues from each category.

	Number	IPv4 (/8)	New	Current	Increase
Members	1266	6.82	\$4,512,600	\$4,406,250	2%
NIRs	6	5.01	\$403,200	\$190,000	112%
NIR members	543	3.87	\$1,351,260	\$700,000*	93%
Total	1815	15.70	\$6,267,060	\$5,296,250	18%

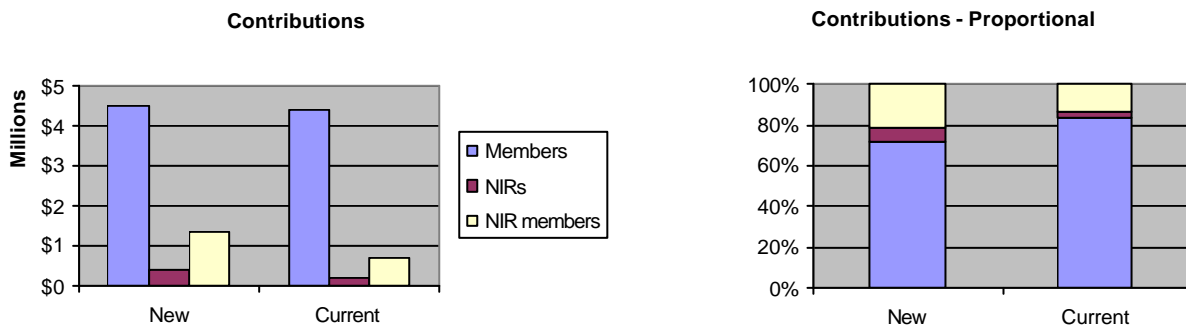
* The current 2006 budget estimate for NIR per address fees is \$700,000. This would be replaced under the new structure by annual fees charged to NIR members.

4.5 Impact Analysis

The following graphs illustrate the distribution of APNIC members, NIRs and NIR members, and the consumption of IPv4 address space by each category.



The following graphs compare the contributions to APNIC revenue of APNIC members, NIRs and NIR members under the current and proposed new fee structures.



5 Implementation

5.1 *Impact on Members*

A fee structure of this type change has implications for all APNIC members, and approval must provide sufficient advance notice of the change in order that members' budget cycles can accommodate the change.

It is proposed to implement the new fee structure from 1 January 2008.

5.2 *Impact on APNIC Secretariat*

While many internal changes will be required, all can be accommodated within the proposed implementation period.