APNIC Executive Council Study on APNIC Fees

19 February 2009

In 2008 the Executive Council of APNIC commissioned KPMG to perform a study on APNIC Fees, and make some recommendations concerning the most appropriate fee structures for APNIC to adopt. This document introduces that study, and contains the Executive Council's responses to the recommendations made in that report.

1. Background

The APNIC fee schedule has been reviewed from time to time by the APNIC community. The following section contains a brief summary of recent activities of the membership and the APNIC EC concerning APNIC fees.

April 2005

The APNIC EC decided to apply a 90% discount to IPv6 per-address allocation fees to NIR members with existing IPv4 infrastructure, and to waive per-address fees for IPv6 allocations to confederation who maintain a single IPv6 address pool.
http://ftp.apnic.net/apnic/archive/apnic-081-v010.txt

March 2006

Presentation to the APNIC annual member meeting by the APNIC Director-General. The presentation noted that the fee structure, established in 1996, was under stress, and proposed that the impact of NIR formation on APNIC revenues should be mitigated.
http://www.apnic.net/meetings/21/docs/other/amm-pres-wilson-fees.pdf

August 2006

An APNIC Fees Working Group was established, chaired by Ming-Cheng Liang and Randy Bush. A number of fee options were studied by this working group, including an initial version of a 'continuous' fee model.
http://www.apnic.net/mailing-lists/wg-apnic-fees/index.shtml
http://www.apnic.net/mailing-lists/wg-apnic-fees/archive/2006/08/pdfMCs9C6PHq9.pdf

March 2007

At the APNIC 23 meeting there were a number of presentations the APNIC fee schedule, including a background of the APNIC Fee schedule, a comparison with the fees of other RIRs, and the results of a "straw" poll" of the APNIC membership.
http://www.apnic.net/meetings/23/programme/fees.html

The results of the "straw poll" indicated a strong preference from the respondents for:

- a fee structure that used a "continuous fee" structure in preference to tiers,
- restructuring of NIR fees based on LIR membership of the NIR,
- inclusion of historical address space holdings into the fee structure, and
- charging non-members using the same fee structure as APNIC members

The poll also indicated support for consideration for members from LDCs, and a slight preference for a "2-bit" fee model in preference to the current "3-bit" model (referring to a doubling of the fee level for each four-fold increase in address holding, instead of the existing doubling of the fee for each eight-fold increase).
http://www.apnic.net/meetings/23/archive/presentations/fees-pres-wilson-poll-report.pdf

July 2007

The APNIC EC, and Fees Working Group Chairs, held a retreat to consider the fees situation and to brief KPMG of the scope of a study on APNIC fees. The discussion considered the financial and market issues facing APNIC, including IPv4 unallocated pool exhaustion, the impact of the current /32 minimum IPv6 allocation, the categories of membership, and additional factors such as “ageing” of held resources, and service-based fee models.

September 2007

Based on initial advice from KPMG the APNIC EC asked the APNIC membership to approve a shift in the fee schedule to AUD as the fee currency, and a fee increase of 7% across the Board. The proposal was not approved.
KPMG report - http://www.apnic.net/meetings/24/fees/kpmg-review-draft.pdf

October 2007

Following a review by the EC of the APNIC ByLaws and advice from KPMG concerning the financial best interests of APNIC, the APNIC EC exercises its responsibilities under the terms of the APNIC ByLaws to change the APNIC Fee Schedule to AUD, effective as of 1 January 2008.
http://www.apnic.net/mailing-lists/wg-apnic-fees/archive/2007/10/msg00003.html

July 2008

The APNIC EC held a second retreat to determine the scope of a study on APNIC finances and fees. The EC determined to commission KPMG to undertake an initial scenario of risk analysis under the current fee schedule, and modelling a number of scenarios involving shifts in membership structure and IPv4 exhaustion. The EC determined to use this initial report as the basis for further analysis of APNIC's fee schedule

December 2008

KPMG passed its final report of the study of APNIC finances and fees to the APNIC EC.

2. KPMG Report to the APNIC EC

KPMG were engaged by the APNIC EC to analyse various options with respect to APNIC fees. In conjunction with the APNIC EC the study identified six key principles to use in the evaluation of various fee structures:

- Financial Sustainability of Operations
- Consistency and Fairness
- Transparency
- Flexibility
- Manage Risks
- Impact Assessment

The KPMG study analysed a number of potential membership fee structure options for APNIC and finally recommended that it would be financially prudent to adopt the following measures.

Recommendation	Comment
R.1 Overall: Recommendation to APNIC to adopt a continuous fee model with a premium for NIRs	The fee options identified in the report as A2 and B are very similar in nature and as such provide largely the same benefits / results. However, overall KPMG prefers Option B over Option A2 simply because it would result in a slightly better financial position for APNIC. Should the EC prefer not to charge NIRs different fees compared to other APNIC members then Option A2 will be the most appropriate option for APNIC. The shortfall / surplus and cash reserve levels under both of these options (A2 and B) will ultimately be dependent on the starting fee level and bit factor applied to the membership fee structure. For example, this report highlights that should the EC consider increasing the start value of fees to $2,450 (for a /24) then APNIC would meet or almost meet its cash reserve target by 2013 whereas smaller increases would improve APNIC's financial position but would not allow to achieve the cash reserve target. KPMG is of the view that the introduction of 3 additional NIRs would generally negatively impact on the financial position of APNIC unless NIRs are charged significantly higher fees (approximately 15 times) when compared to ordinary APNIC members.

R.2 Frequency of fee review to occur annually.	Benchmarks undertaken in July 2008 indicate that an annual review of fees assists in cost recovery of operations and budget setting. We believe that it would be financially prudent that APNIC EC review (and if necessary adjust) its fee levels annually, to ensure that revenue and capital reserve targets are able to be met.
R.3 Level of cash reserve to be maintained at 18 months of future operating expenses.	Research undertaken by KPMG and presented to the APNIC EC in July 2008 indicated that cash reserves of membership organisations are generally in the order of 12-36 months of operating expenses. It is recommended that it would be financially prudent to increase the level of APNIC's cash reserve from the current level of 12 months to 18 months. This would bring APNIC in line with ARIN and provide additional protection against current and future economic downturns.
R.4 Timeframe to achieve cash reserve: 4 years (2013).	Assuming the introduction of a new fee structure at the beginning of 2010, KPMG recommends that APNIC EC should aim to achieve the proposed cash reserve target in 4 years (i.e. 2013).
R.5 Discounted membership fees to be provided to LDC's (Least Developed Countries).	It is recommended that APNIC provide discounts to LDC's as defined by the United Nations. These discounts have not been modelled, however, it is recognised that LDC's constitute less 10% of total members of APNIC. Accordingly, any discount provided would not have a major impact on APNIC's financial position.
R.6 Adopt a new fee schedule by 2010	Our analysis has identified that unless APNIC adopts a new membership fee structure its operations will not be financially viable over the long-term. Therefore, the EC should be preparing for a fee change as soon as possible (i.e. 2010) to allow sufficient time to communicate the proposed changes to the membership and allow a planned implementation of the new membership fee schedule irrespective of which option the EC ultimately decides to pursue.
R.7 APNIC EC to commence this study in the near team to allow sufficient time for the transition to a new IPv6 fee structure in 2012.	All options analysed as part of this study have clearly highlighted that the options investigated only provide a temporary solution to APNIC (i.e. until the end of 2011) unless significant fee increases are introduced in 2010. The IPv6 schedule post 2011 is not sustainable. KPMG recommends that the EC undertake a separate study to determine an appropriate IPv6 fee schedule post 2011. Further, it is recommended that IPv6 fees should be linked to some other basis than address holdings unless the fee model would consider the ageing of address holdings. KPMG's benchmarking study presented to the EC in July 2008 provides an overview of alternative bases that could be considered for a new IPv6 schedule. As this would present a fundamental change to the current fee structure KPMG is of the view that that this this will require a longer period to implement and to be communicated and accepted by the APNIC membership. As such, it is recommended that APNIC commence this study in the near team to allow sufficient time for the transition to a new IPv6 fee structure in 2012.
R.8 APNIC EC to adopt a continuous membership fee model until 2011	Based on the options that the EC has asked KPMG to investigate KPMG recommends that APNIC should adopt a continuous membership fee model (i.e. Option A2 or B in the report) until 2011 as these options: • Meet all key principles that the EC requires a future membership fee structure to comply with; and

	• Provide the greatest degree of fairness as they are ultimately user-pay systems – some very small members might even be paying less under this fee structure than they are currently contributing to APNIC. Options A2 and B are largely similar with the exception that under Option B NIRs pay a multiple of the ordinary fees paid by APNIC members. While Option B results in a better projected financial position for APNIC, the adoption of the model would ultimately be dependent on whether the EC would consider a model under which NIRs pay a greater fee than direct APNIC members.
R.9 Introduction of new NIRs will have a negative impact on APNIC finances	Our findings suggest that the establishment of NIRs in Australia, Hong Kong and India would broadly have a negative impact on the projected financial situation of APNIC unless the fees of NIRs are increased to 15 times the fees contributed by ordinary APNIC members.

KPMG has now completed Stage 2 of the APNIC membership fee study, and their key findings and recommendations are presented in this report.

KPMG recommends that the EC undertake the following key steps going forward:

1. Review the key findings and recommendations in this report
2. Eliminate options that it deems inappropriate
3. Select its preferred option
4. Consider engaging KPMG to refine the preferred option (e.g. determination of exact parameters of future fee structure such as start values and bit factors)
    - This analysis would need to commence in January 2009 and should be completed prior to and presented at the EC meeting in Manila in February 2009
5. Depending on the adopted fee structure (and underlying parameters), the EC should consider engaging KPMG to determine an appropriate IPv6 fee structure post 2011

3. EC Considerations

The EC has reviewed the key findings and recommendations in the KPMG report.

The EC is aware that:
- the capacity of APNIC to deliver services to the membership and the regional community of interest depends on APNIC having a secure financial foundation,
- the members of APNIC share a responsibility to ensure that APNIC can meet its expenses associated with the delivery of the service portfolio,
- APNIC must operate with a financially prudent level of reserve funds in order to ensure continuity of service across unanticipated events and evolving circumstances.
- APNIC must be prepared for impacts on the forthcoming exhaustion of the unallocated IPv4 address pool and the general transition to the use of IPv6 on our general operating model.

The EC has also studied the financial impacts of the recognition of further National Address Registries within the region.

The EC is also mindful of the impacts of the current widespread economic downturn in the regional economies, and has reviewed the recommendations of the fee study with the objective of achieving a reasonable balance between undertaking steps to achieve the financial objectives of APNIC and avoiding the imposition of significant fee increases on members in a time of some general economic stress.

In the light of these considerations the EC has the following response to each of the recommendations of the KPMG report.

R.1 Overall: Recommendation to APNIC to adopt a continuous fee model with a premium for NIRs

The EC endorses this recommendation, and will investigate the replacement of the tiered fee model with a "continuous" fee structure whereby a member's total address holdings would be used to determine the annual membership fee. The EC will also review the setting of per-address fees payable by NIR and Confederation members within the scope of implementation of this recommendation.

R.2 Frequency of fee review to occur annually.

The EC endorses this recommendation, and proposes to review the APNIC schedule of fees annually.

R.3 Level of cash reserve to be maintained at 18 months of future operating expenses.

APNIC has been operating with a level of cash reserves equal to 12 months of operating expenses for many years. The EC endorses the objective of increasing the financial security of the organization by increasing the level of cash reserves, particularly in light of the changing circumstances with respect to IPv4 unallocated pool exhaustion and the consequent changes in aspects of the operation of APNIC.

However, the EC is also mindful of the current financial issues facing many members in the region. At this stage the EC sees it appropriate to set a more modest reserve target of 15 months of operating expenses.

The state of the current business environment in the region is of such severity at present that even this financial objective of a 15 month target is not seen to be immediately achievable in the current environment. At this stage the EC is endeavouring to phrase the 2010 budget to maintain the current position of 12 months of operating expenses, but recognises that this fee structure will not maintain that 12 month reserve position in 2011 and subsequently because of the anticipated impacts of the change in revenues with the onset of exhaustion of the unallocated IPv4 address pool.

This is a matter of considerable concern to the EC, and the EC will review the situation in the coming year with a view to making further adjustments in fees and expenditures for 2011 in the light of anticipated recovery in the general economic environment that will facilitate achieving this 15 month capital reserve objective in the longer time.

R.4 Timeframe to achieve cash reserve: 4 years (2013).

The EC agrees with the principle of this recommendation of achieving a cash reserve of 15 months of operating expenses by 1 January 2013, but does not feel that this is immediately achievable within the current financial environment.

The fee changes adopted for 2010 will improve the cash reserve situation to some extent in the short term, but the exhaustion of the unallocated IPv4 address pool is anticipated to have a negative impact on revenue streams from 2011. It is, however, anticipated that the current general economic environment will have ameliorated to some extent by that time. Accordingly, the EC will review this situation in the coming year, as noted above.

R.5 Discounted membership fees to be provided to LDC's (Least Developed Countries).

The EC endorses this recommendation, and proposes to provide a discount for all member fees for members from LDCs.

R.6 Adopt a new fee schedule by 2010

The EC endorses this recommendation, and will develop a APNIC fee schedule for implementation from 1 January 2010. The new schedule will be released by 1 April 2009.

R.7 APNIC EC to commence this study in the near team to allow sufficient time for the transition to a new IPv6 fee structure in 2012.

The EC understands that aspects of APNIC's business and finances will undergo profound change with the exhaustion of the unallocated IPv4 address pool and the transition by the industry to IPv6. The EC believes that the proposed fee structure changes will sustain APNIC's operation during the period of continued allocation from the IPv4 unallocated address pool, but that the anticipated shift to IPv6 will entail further changes to aspects of APNIC's operation and finances, starting from 2011. The EC endorses this recommendation and will commence a study of this topic as part of its program of activities for 2009.

R.8 APNIC EC to adopt a continuous membership fee model until 2011

In addition to adopting a "continuous" fee structure from 2010 (recommendation R.1), and undertaking a study of the issues raised by the transition to IPv6, the EC will monitor the impact of the fees on members, and will, as part of its annual review, make adjustments as appropriate in the interests of the membership organization and its provision of services to members and the broader regional community of interest. The continuous membership fee model will be used until 2011, and may be used thereafter, depending on the outcome of the EC's periodic review of membership fees.

R.9 Introduction of new NIRs will have a negative impact on APNIC finances

The EC notes this advice, but also notes that the recognition of new NIRs by the EC will continue using the same evaluation criteria as it has used to date. The EC notes that it will include the topic of NIR fee schedules, and the relativities to ordinary member fees, as part of its further study of fees in 2009.

4. Previous EC Decisions on APNIC Fees

As part of an earlier phase of this fee study exercise, effective from 1 January 2008 the APNIC fee schedule was changed from using the USD currency to using the AUD currency. This decision was based on advice obtained from KPMG regarding appropriate measures to increase the financial stability of APNIC during a time of considerable fluctuation international currency exchange rates.

Since that time there has been a subsequent movement of a number of major regional currencies against the AUD. The current position for a number of currencies is compared to the position as of 1 January 2009 is shown in the following figure. It is noted that for a number of economies in the region there has been a substantial net reduction in APNIC member fees as expressed in the local currency across this period.

An analysis of the changes in exchange rates in the period from the start of 2008 until the end of January 2009 is shown in Attachment A.

5. Member Fees, Member Tiers and Votes

The APNIC EC notes that while the implementation of the recommendations concerning a 'continuous' fee schedule will remove the membership tiers from the member fee schedule, remain membership tier provisions remain in the APNIC Bylaws, and in the number of votes that are exercisable by APNIC members. For this reason, the membership tiers of Associate, Very Small, Small, Medium, Large, Very Large and Extra Large will remain, and the method of assessment of members into these membership tiers remain in place following the implementation of changes in the fee schedule.

The APNIC EC is of the view that the APNIC membership should determine if the tier structure for member voting should be modified in the light of these changes to the fee schedule to use a 'continuous' fee structure, and recommends this matter for membership consideration at a future APNIC Members' Meeting.

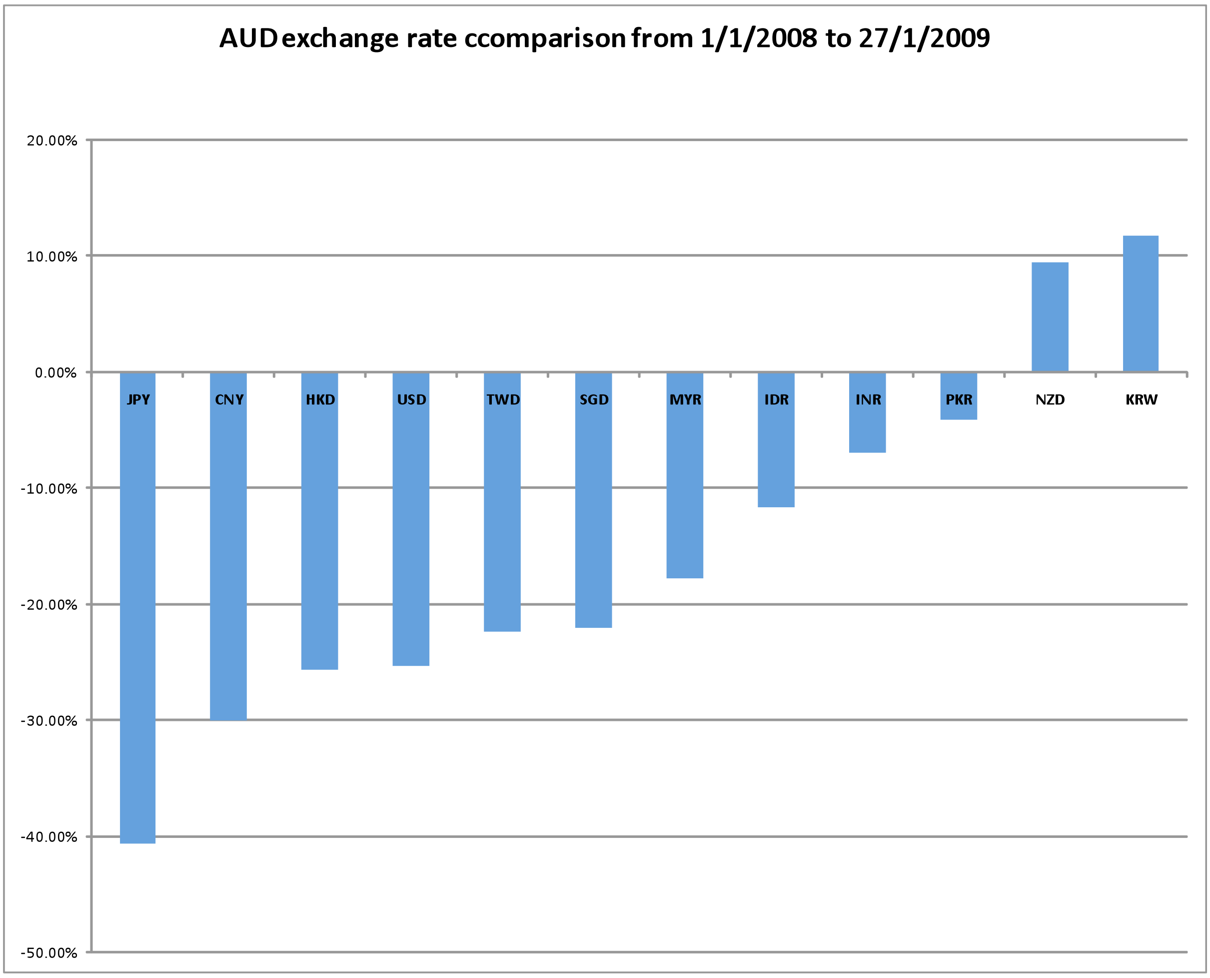
The membership may wish to consider the relative merits of a number of models of membership tiers and associated votes, including:

- The status quo of existing membership tiers,
- Adoption of single tier of membership, equivalent to a 1 member 1 vote model,
- Adoption of a "continuous" vote model where a large number of additional tiers are introduced for 1, 2, 3,… votes per member based on the continuous fee schedule.

The existing concept of tiers of membership for membership voting purposes will be retained until the membership decides to change this through a membership vote an APNIC Members Meeting.

Attachment A. Currency Movements against the AUD from 1 January 2008

Exchange Rates	Oanda Rate 1/01/2008	Oanda Rate 27/01/2009	per AUD 1/01/2008	per AUD 27/01/2009	% Change
JPY	0.01016	0.01714	98.43	58.34	-40.72%
CNY	0.15607	0.22331	6.41	4.48	-30.11%
HKD	0.14596	0.19661	6.85	5.09	-25.76%
USD	1.13837	1.52516	0.88	0.66	-25.36%
TWD	0.0351	0.04523	28.49	22.11	-22.40%
SGD	0.79026	1.0147	1.27	0.99	-22.12%
MYR	0.34592	0.42131	2.89	2.37	-17.89%
IDR	0.0001203	0.0001363	8,312.55	7,336.76	-11.74%
INR	0.02889	0.03108	34.61	32.18	-7.05%
PKR	0.01854	0.01935	53.94	51.68	-4.19%
NZD	0.88068	0.80513	1.14	1.24	9.38%
KRW	0.001228	0.0011	814.33	909.09	11.64%



Attachment B. The KPMG Fee Study Report

RISK ADVISORY SERVICES

APNIC Membership Fee Structure Options

22 December 2008

ADVISORY

AUDIT ▪ TAX ▪ ADVISORY

Disclaimers

Inherent Limitations

This report has been prepared as outlined in KPMG's engagement letter dated 14 May 2008 and subsequent letter to the Executive Council dated 20 July 2008 . The services provided in connection with this engagement comprise an advisory engagement which is not subject to Australian Auditing Standards or Australian Standards on Review or Assurance Engagements, and consequently no opinions or conclusions intended to convey assurance have been expressed.

No warranty of completeness, accuracy or reliability is given in relation to the statements and representations made by, and the information and documentation provided by, APNIC and others consulted as part of the process.

KPMG have indicated within this report the sources of the information provided. We have not sought to independently verify those sources unless otherwise noted within the report.

KPMG is under no obligation in any circumstance to update this report, in either oral or written form, for events occurring after the report has been issued in final form. The findings in this report have been formed on the above basis.

In the course of our work, projections have been prepared on the basis of assumptions. It is possible that some of the assumptions underlying any projections may not materialise. Where KPMG have made assumptions, we have applied our professional judgement in making these assumptions, such that they constitute an understandable basis for estimates and projections. Beyond this, to the extent that certain assumptions do not materialise, then you will appreciate that our estimate and projections of achievable results will vary.

Third Party Reliance

This report is solely for the purpose set out in KPMG's engagement letter and for APNIC's information, and is not to be used for any other purpose or distributed to any other party without KPMG's prior written consent.

This report has been prepared at the request of APNIC in accordance with the terms of KPMG's letter of engagement signed by APNIC. Other than our responsibility to APNIC, neither KPMG nor any member or employee of KPMG undertakes responsibility arising in any way from reliance placed by a third party on this report. Any reliance placed is that party's sole responsibility.

Key Undertakings and Findings

Issue	Summary observations	Key analysis
KPMG have been engaged to assist APNIC in developing a set of financial projections over the five year period to 2013. This financial model estimates the growth in APNIC membership numbers, the financial impact of new NIRs and the transition from IPv4 to IPv6 on APNIC's financial performance. Based on this financial model a set of options have been developed to potentially address the financial projections.		
Option A1: Marginal Change to Fees. Addition of an XXL membership category	**KPMG estimates indicate that the addition of an XXL category would only have a minor impact on the projected operating results of APNIC. It is projected that even with the addition of an XXL category the following may occur:** ● APNIC incurs expenses greater than revenue over the period 2011 to 2013 ● A negative cash reserve in 2013	Page 22. On its own, under the assumptions outlined in this report, it is projected that the addition of an XXL category **will not achieve cash reserve targets** in 2013.
Option A2: Marginal Change to Fees. Continuous Model	**The development of a continuous model would introduce a new mechanism by which IP address holdings are calculated. KPMG have projected that under this model revenue less expenses for APNIC would be positive for 2010 and 2011 and that the projected cash reserve would be positive over the period 2010 to 2012, albeit declining. While the cash reserve target is projected not to be achieved in 2013, this model offers a short term (2010 and 2011) option for sustaining operations.**	Page 24. The continuous model may require changes to fees, however it **may offer a short term solution to APNIC's projected financial situation depending on the adopted start value of the fee structure**.
Option B: NIR / Membership Relativity Change	**Option B builds upon Option A2 by assuming that NIRs are required to pay an membership fee set to X% times the ordinary membership fees under the continuous model. Our analysis indicates that increased fees from NIRs would improve the financial performance of APNIC depending on the adopted start value of the membership fee structure. Overall, this option would result in a greater improvement of APNIC's financial position than under Option A2.**	Page 29. Building on Option A2, this fee structure would see **NIRs paying a multiple of fees** when compared to direct APNIC members.

Key Undertakings and Findings (continued)

Issue	Summary observations	Key analysis
Option C: Uniform Membership Model	**The Uniform Membership Model assesses all NIR members according to the APNIC ordinary fee schedule. It is assumed that under this model a percentage of the fees generated from NIR members would be retained by the NIRs and the remaining amount would pass to APNIC. Projections indicate that this option could have a negative impact on the financial performance of APNIC if the amount estimated to pass from NIRs to APNIC was not sufficient to more than compensate APNIC for fees received from NIRs under the current structure.**	Page 34. KPMG have projected that **more than 40% of fees would need to pass** from NIR members to APNIC to positively address the financial situation of APNIC.
Establishment of NIRs in Australia, Hong Kong and India.	**Each option has been analysed under a situation where NIRs are established in Australia, Hong Kong and India and in line with assumptions detailed in our report dated 9 October 2008. Our findings suggest that the establishment of NIRs in Australia, Hong Kong and India would broadly have a negative impact on the projected financial situation of APNIC unless the EC decides to increase the fees contributed by NIRs significantly. For example, under Option B, should the EC decide that NIRs should pay 15 times the ordinary fees of direct APNIC members APNIC would in fact be in better financial position with the introduction 3 additional NIRs in Australia, Hong Kong and India. As we believe that the EC is unlikely to agree to such a substantial fee increase for NIRs we conclude that the introduction of additional NIRs would generally negatively impact on APNIC's financial position.**	Page 42. Establishment of additional NIRs is projected to have a **negative impact on the financial performance of APNIC**
IPv6 transition and current fee structure	**Analysis of the financial projections indicates that the transition to IPv6 (estimated to largely occur in 2010) will impact the ability of APNIC to generate revenue sufficient to meet its projected expenses and achieve recommended cash reserves. Accordingly, the current IPv6 fee structure is projected to be unsustainable for APNIC and its members post 2011.**	Page 18. A fee structure that addresses the transition to IPv6 and that enables APNIC to be adequately **compensated for address holdings** should be considered by the EC.

Summary of Options (assuming no additional NIRs)

The following table provides a summary of all options analysed by KPMG as part of Task 4 of the study assuming that no new NIRs are introduced over the period to 2013.

Summary of options (no new NIRs)	2010	2011	2012	2013
"Do Nothing" scenario				
Revenue less expenses	738,172	(1,810,434)	(4,239,152)	(5,849,123)
Cash reserve	11,554,214	8,932,417	3,621,228	(3,615,071)
Option A1: Marginal change to fees – Addition of XXL category				
Revenue less expenses	890,284	(1,658,322)	(4,087,040)	(5,697,011)
Cash reserve	11,706,326	9,236,641	4,077,564	(3,006,623)
Option A2: Continuous model to replace existing membership tiers (assuming $1,257 start value)				
Revenue less expenses	237,490	(2,325,942)	(4,772,084)	(6,394,763)
Cash reserve	11,053,532	7,916,228	2,072,107	(5,709,832)
Option A2: Continuous model to replace existing membership tiers (assuming $1,800 start value)				
Revenue less expenses	3,684,260	1,523,262	(449,895)	(1,727,615)
Cash reserve	14,500,302	15,212,201	13,690,270	10,575,479
Option A2: Continuous model to replace existing membership tiers (assuming $2,450 start value)				
Revenue less expenses	7,810,227	6,130,965	4,723,995	3,859,211
Cash reserve	18,626,269	23,945,871	27,597,830	30,069,865
Option B: NIR / Membership Relativity Change – **NIRs pay 2 x** ordinary fees per IP address				
Revenue less expenses	498,660	(2,064,772)	(4,510,914)	(6,133,593)
Cash reserve	11,314,702	8,438,568	2,855,617	(4,665,152)
Option B: NIR / Membership Relativity Change – **NIRs pay 5 x** ordinary fees per IP address				
Revenue less expenses	1,282,170	(1,281,262)	(3,727,404)	(5,350,083)
Cash reserve	12,098,212	10,005,588	5,206,147	(1,531,112)
Option B: NIR / Membership Relativity Change – **NIRs pay 15 x** ordinary fees per IP address				
Revenue less expenses	3,893,869	1,330,437	(1,115,705)	(2,738,384)
Cash reserve	14,709,911	15,228,985	13,041,243	8,915,683
Option C: Uniform Membership Model: **40%** of NIR membership fees pass to APNIC				
Revenue less expenses	(89,730)	(783,844)	(1,382,184)	(2,758,843)
Cash reserve	10,726,312	9,131,105	6,676,885	2,530,866
Option C: Uniform Membership Model: **60%** of NIR membership fees pass to APNIC				
Revenue less expenses	1,314,380	714,537	220,912	(1,039,091)
Cash reserve	12,130,422	12,033,597	11,182,473	8,756,206
Option C: Uniform Membership Model: **100%** of NIR membership fees pass to APNIC				
Revenue less expenses	4,122,600	3,711,300	3,427,104	2,400,414
Cash reserve	14,938,642	17,838,580	20,193,648	21,206,885

Summary of Options (with NIRs in Australia, Hong Kong and India)

The following table provides a summary of all options analysed by KPMG as part of Task 4 of the study assuming that 3 new NIRs (Australia, Hong Kong and India) are introduced over the period to 2013. APNIC's financial position would generally be negatively impacted by the introduction of these new NIRs unless the fees of NIRs are significantly increased to 15 times the fees of ordinary members.

Summary of options (With NIRs in Australia, Hong Kong and India)	2010	2011	2012	2013
"Do Nothing" scenario				
Revenue less expenses	(1,818,524)	(4,921,418)	(7,620,764)	(9,410,993)
Cash reserve	8,948,983	3,151,344	(5,636,334)	(16,556,913)
Option A1: Marginal change to fees – Addition of XXL category				
Revenue less expenses	(1,666,412)	(4,769,306)	(7,468,652)	(9,258,881)
Cash reserve	9,101,095	3,455,568	(5,179,998)	(15,948,465)
Option A2: Continuous model to replace existing membership tiers (assuming $1,257 start value)				
Revenue less expenses	(2,190,597)	(5,305,154)	(8,017,723)	(9,817,910)
Cash reserve	8,576,909	2,395,535	(6,789,102)	(18,116,598)
Option A2: Continuous model to replace existing membership tiers (assuming $1,800 start value)				
Revenue less expenses	9,293	(2,899,419)	(5,378,574)	(7,002,995)
Cash reserve	10,776,800	7,001,160	455,672	(8,056,909)
Option A2: Continuous model to replace existing membership tiers (assuming $2,450 start value)				
Revenue less expenses	2,642,680	(19,627)	(2,219,371)	(3,633,392)
Cash reserve	13,410,186	12,514,339	9,128,054	3,985,076
Option B: NIR / Membership Relativity Change – **NIRs pay 2 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	(1,696,355)	(4,810,911)	(7,523,480)	(9,323,668)
Cash reserve	9,071,152	3,384,021	(5,306,374)	(16,139,627)
Option B: NIR / Membership Relativity Change – **NIRs pay 5 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	(213,626)	(3,328,182)	(6,040,752)	(7,840,939)
Cash reserve	10,553,880	6,349,478	(858,188)	(10,208,713)
Option B: NIR / Membership Relativity Change – **NIRs pay 15 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	4,728,802	1,614,246	(1,098,324)	(2,898,511)
Cash reserve	15,496,309	16,234,334	13,969,097	9,561,000
Option C: Uniform Membership Model: **40%** of NIR membership fees pass to APNIC				
Revenue less expenses	(1,435,991)	(2,529,348)	(3,214,325)	(4,551,475)
Cash reserve	9,331,515	5,925,946	1,544,707	(4,516,354)
Option C: Uniform Membership Model: **60%** of NIR membership fees pass to APNIC				
Revenue less expenses	649,392	(272,171)	(760,438)	(1,871,049)
Cash reserve	11,416,898	10,268,507	8,341,154	4,960,520
Option C: Uniform Membership Model: **100%** of NIR membership fees pass to APNIC				
Revenue less expenses	4,820,158	4,242,183	4,147,336	3,489,805
Cash reserve	15,587,664	18,953,627	21,934,049	23,914,268

Key Undertakings and Findings (continued)

During KPMG's Stage 1 analysis the EC confirmed that any future membership fee structure should meet six key principles. The following table provides an overview of each of the options under consideration against these key principles.

Options				
Principles	**Option A1**	**Option A2**	**Option B**	**Option C**
Financial Sustainability of Operations	To 31 December 2011 – post 2012 need to review IPv6 fee schedule	To 31 December 2011 – post 2012 need to review IPv6 fee schedule	To 31 December 2011 – post 2012 need to review IPv6 fee schedule	To 31 December 2011 – post 2012 need to review IPv6 fee schedule
Consistency and Fairness	Limited fairness as larger members would pay a proportionately smaller share of fees when considering their address holdings	High level of fairness as fees are charged in accordance with address holdings – user pays system	High level of fairness as fees are charged in accordance with address holdings – user pays system	Degree of fairness is dependent on share of membership fees of NIR members passed on to APNIC by NIRs
Transparency	✓	✓	✓	✓
Flexibility	Fees can be adjusted annually if required	Fees dependent on actual address space holdings	Fees dependent on actual address space holdings	Fees can be adjusted annually if required
Manage Risks	Target cash reserve not achieved	Target cash reserve not achieved unless a high start value is adopted	Target cash reserve not achieved unless a high start value is adopted	Target cash reserve not achieved even if NIRs pass all fees of NIR members on to APNIC
Impact Assessment	It has been assumed that even with the introduction of IPv6, revenue from IPv4 will continue to be at the same level – need for review of IPv6 fee structure post 2011	It has been assumed that even with the introduction of IPv6, revenue from IPv4 will continue to be at the same level – need for review of IPv6 fee structure post 2011	It has been assumed that even with the introduction of IPv6, revenue from IPv4 will continue to be at the same level – need for review of IPv6 fee structure post 2011	It has been assumed that even with the introduction of IPv6, revenue from IPv4 will continue to be at the same level – need for review of IPv6 fee structure post 2011

Most membership fee options considered as part of this study meet the majority of the key principles approved by the EC. The key difference across the considered options relates to the level of consistency and fairness of each option. KPMG believes that Options A2 and B provide the greatest level of fairness as they are user pays systems under which membership fees are charged in accordance with actual holdings of address space.

Overarching Recommendations

KPMG has analysed a number of potential membership fee structure options for APNIC. As part of developing such options KPMG believes that it would be financially prudent for APNIC to adopt the following recommendations irrespective of which option the EC will ultimately implement.

Recommendation	Comment
Frequency of fee review to occur annually.	Benchmarks undertaken in July 2008 indicate that an annual review of fees assists in cost recovery of operations and budget setting. We believe that it would be financially prudent that APNIC EC review (and if necessary adjust) its fee levels annually, to ensure that revenue and capital reserve targets are able to be met.
Level of cash reserve to be maintained at 18 months of future operating expenses.	Research undertaken by KPMG and presented to APNIC in July indicated that cash reserves of membership organisations are generally in the order of 12-36 months of operating expenses. It is recommended that it would be financially prudent to increase the level of APNIC's cash reserve from the current level of 12 months to 18 months. This would bring APNIC in line with ARIN and provide additional protection against current and future economic downturns.
Timeframe to achieve cash reserve: 4 years (2013).	Assuming the introduction of a new fee structure at the beginning of 2010, KPMG recommends that APNIC EC should aim to achieve the proposed cash reserve target in 4 years (i.e. 2013).
Discounted membership fees to be provided to LDC's (Least Developed Countries).	It is recommended that APNIC provide discounts to LDC's as defined by the United Nations. These discounts have not been modelled, however, it is recognised that LDC's constitute less 10% of total members of APNIC. Accordingly, any discount provided would not have a major impact on APNIC's financial position.

Recommendations – Membership Fee Options

Based on the analysis presented in this report and previous reports completed by KPMG we propose that the EC consider the following recommendations:

Recommendations – Membership fee options	
Issue	**Recommendations**
• Timing of fee change	• Our analysis has identified that unless APNIC adopts a new membership fee structure its operations will not be financially viable over the long-term. • Therefore, the EC should be preparing for a fee change as soon as possible (i.e. 2010) to allow sufficient time to communicate the proposed changes to the membership and allow a planned implementation of the new membership fee schedule irrespective of which option the EC ultimately decides to pursue.
• IPv6 fee schedule needs consideration	• All options analysed as part of this study have clearly highlighted that the options investigated only provide a temporary solution to APNIC (i.e. until the end of 2011) unless significant fee increases are introduced in 2010. • The IPv6 schedule post 2011 is not sustainable. KPMG recommends that the EC undertake a separate study to determine an appropriate IPv6 fee schedule post 2011. • Further, it is recommended that IPv6 fees should be linked to some other basis than address holdings unless the fee model would consider the ageing of address holdings. KPMG's benchmarking study presented to the EC in July 2008 provides an overview of alternative bases that could be considered for a new IPv6 schedule. • As this would present a fundamental change to the current fee structure KPMG is of the view that that this this will require a longer period to implement and to be communicated and accepted by the APNIC membership. As such, it is recommended that APNIC commence this study in the near team to allow sufficient time for the transition to a new IPv6 fee structure in 2012.

Recommendations – Membership Fee Options (continued)

Recommendations – Membership fee options	
Issue	**Recommendations**
• Fee structure	• Based on the options that the EC has asked KPMG to investigate KPMG recommends that APNIC should adopt a continuous membership fee model (i.e. Option A2 or B) until 2011 as these options: – Meet all key principles that the EC requires a future membership fee structure to comply with; and – Provide the greatest degree of fairness as they are ultimately user-pay systems – some very small members might even be paying less under this fee structure than they are currently contributing to APNIC. • Options A2 and B are largely similar with the exception that under Option B NIRs pay a multiple of the ordinary fees paid by APNIC members. While Option B results in a better projected financial position for APNIC, the adoption of the model would ultimately be dependent on whether the EC would consider a model under which NIRs pay a greater fee than direct APNIC members.
• Impact of introduction of 3 new NIRs	• Our findings suggest that the establishment of NIRs in Australia, Hong Kong and India would broadly have a negative impact on the projected financial situation of APNIC unless the fees of NIRs are increased to 15 times the fees contributed by ordinary APNIC members.

Overall recommendation:

Options A2 and B are very similar in nature and as such provide largely the same benefits / results. However, overall KPMG prefers Option B over Option A2 simply because it would result in a slightly better financial position for APNIC. Should the EC prefer not to charge NIRs different fees compared to other APNIC members then Option A2 will be the most appropriate option for APNIC. The shortfall / surplus and cash reserve levels under both of these options (A2 and B) will ultimately be dependent on the starting fee level and bit factor applied to the membership fee structure. For example, this report highlights that should the EC consider increasing the start value of fees to $2,450 (for a /24) then APNIC would meet or almost meet its cash reserve target by 2013 whereas smaller increases would improve APNIC's financial position but would not allow to achieve the cash reserve target. KPMG is of the view that the introduction of 3 additional NIRs would generally negatively impact on the financial position of APNIC unless NIRs are charged significantly higher fees (approximately 15 times) when compared to ordinary APNIC members.

Recommended Approach

- KPMG has now completed Stage 2 of the APNIC membership fee study with KPMG's key findings and recommendations are presented in this report. It should be noted that this report should be read in conjunction with previous reports presented by KPMG during Stages 1 and 2.
- We recommend that the EC consider the following key steps going forward. The EC should:
  1. Review the key findings and recommendations in this report
  2. Eliminate options that it deems inappropriate
  3. Select its preferred option
  4. Consider engaging KPMG to refine the preferred option (e.g. determination of exact parameters of future fee structure such as start values and bit factors)
     - This analysis would need to commence in January and should be completed prior to and presented at the EC meeting in Manila in February
  5. Depending on the adopted fee structure (and underlying parameters), the EC should consider engaging KPMG to determine an appropriate IPv6 fee structure post 2011

Project Scope

Project Scope

Project Objective

- Evaluation of potential member fee structure options

Project Scope Agreed At EC Meeting in Brisbane

Task 1: Develop a Base Case Model

Task 2: Determine the financial impact of the introduction of new NIRs

Task 3: Determine the financial impact of transition from IPv4 to IPv6

Completed

Task 4: Identify and Model Potential Solutions

- The EC has reviewed and approved the set of options to be analysed.
- In order to undertake this analysis KPMG has made several recommendations. These recommendations are based on the findings in the report to APNIC title 'Overview of Fee Setting Mechanisms and Reserve Policies of Membership-Based Organisations' July 2008.
- These recommendations are outlined in the following pages and will be used as overarching parameters in the modelling of potential membership fee solutions.

Focus of this report

Projected Impact of the Global Financial Crisis on the Asia-Pacific Region

Projected Impact of the Global Financial Crisis on the Asia-Pacific Region

- GDP growth in **Asia and Australasia** (excluding Japan) is forecast to slow to just 4.9%, compared with 6.5% in 2008.
  - The recovery is projected to be slow - the Economist Intelligence Unit (EIU) expect the region to grow by just 5.2% in 2010.
  - In 2011-13 growth will pick up to an average of 6.6% - a respectable rate, but well below the 8.3% reached in 2007.
- **Japan**, Australia's biggest trading partner, is officially in recession.
  - Economists are predicting that Japan's recession will push Australia nearer to recession.
  - Japan's economy shrank 0.9% in the June quarter and then 0.1% in the September quarter.
- **China** has announced a 4 trillion Yuan ($870 billion) stimulus package aimed at bolstering growth and maintaining social order.
  - Over the next two years, the Chinese Government hopes to boost its economy, which has been growing at its slowest pace in 5 years. Some economists project that China's GDP growth in 2009 could be as low as 5-6% in 2009.
  - China's value-added output rose by 8.2% year on year in October, down from an 11.4% gain in September. This marked the smallest increase since 2001. This was also a significant deceleration from the 16.1% rate recorded in the first half of the year.
- For **India**, GDP growth in the first quarter of fiscal year 2007/08 (April-March) was the slowest in over three years, at an annual 7.9%.
  - The government maintains that the economy will grow by almost 8% during the current fiscal year and recover to 9% in 2009/10. Most independent estimates, however, are far less optimistic. EIU expects India's economy to expand by 6.5% in each of the next two fiscal years.
- **Singapore**'s GDP plummeted by an annualised 6.3% in the third quarter after contracting by 5.7% in the previous quarter.
- **Hong Kong's** third-quarter gross domestic product dropped a seasonally adjusted 0.5 percent from the previous quarter after a 1.4% fall in the second quarter.
- **Malaysia**'s inflation rate eased to 8.2% year on year in September, from a 26-year high of 8.5% previously. EIU estimate that inflation will average 5.8% in 2008, with price pressures set to moderate in 2009, to an average of 3.5%.
- **New Zealand** has officially entered into its first recession in 10 years following a 0.3% GDP decline in the third quarter after a 0.2% decline in the previous quarter.

Options Under Consideration

Set of Membership Fee Structure Options Analysed by KPMG

The following table summarises the membership fee structure options analysed by KPMG in this report.

Option	Description
A1 **Marginal Change to Fees**	• Creation of a new XXL membership tier • Continuous assessment of member fees with pro-rata changes in response to resource allocations
A2 **Marginal Change to Fees**	• Use of a continuous model to replace existing membership tiers • Continuous assessment of member fees with pro-rata changes in response to resource allocations
B **NIR / Membership Relativity Change**	• NIRs pay a membership fee set to X% times the ordinary membership fee • Continuous model to replace step function across tiers • Continuous assessment of member fees with pro-rata changes in response to resource allocations
C **Uniform Membership Model**	• All NIR members are individually assessed according to the APNIC ordinary fee schedule • NIRs retain X% of the assessment and pass Y% of the fees to APNIC

• Voting rights are not examined in this report and it is assumed that they will still be proportional to fees paid

•It is also noted that minor additional income generated under each option would generate additional interest income that would also contribute to the overall financial performance of APNIC.

Base-Case Scenario: “Do Nothing” Option

Base-Case Scenario: Projected Membership Numbers

Projected APNIC membership by membership category (assuming no new NIRs are established)						
	2008 Actual	Projected members 2009	Projected members 2010	Projected members 2011	Projected members 2012	Projected members 2013
Associate	315	389	480	592	730	901
Very Small	396	489	603	603	603	603
Small	834	944	1,069	1,367	1,718	1,974
Medium	251	263	275	275	275	275
Large	85	88	91	91	91	91
Very Large	28	29	29	29	29	29
Extra Large	10	10	10	10	10	10
Total	**1,919**	**2,211**	**2,556**	**2,967**	**3,457**	**3,884**

Assumptions and analysis

- Previously, KPMG have projected membership growth across each membership category to 2013.
- In consultation with the APNIC secretariat, membership growth projections **incorporate IPv4 exhaustion**. In line with this, only the Associate and Small membership categories are projected to continue to grow from 2011 to 2013.
- Growth rates adopted to project membership numbers are based on consideration of historical weighted average annual growth of each category of membership.
- These projections assume that **no additional NIRs** are established over the period 2008 to 2013.

Base-Case Scenario: Projected Financial Performance

Projected APNIC Statement of financial performance (assuming no NIRs are established) ($)

	2008 Budget	2009	2010	2011	2012	2013
IP Resource Application fees	963,960	924,068	1,095,575	1,302,123	1,551,274	1,852,278
Interest income	721,997	788,204	573,195	383,222	101,787	0
Membership fee income	6,732,908	8,082,724	8,859,565	9,894,888	11,116,931	12,063,559
Non-Member fees	198,316	217,890	239,396	263,024	288,984	317,507
Per Allocation fees	1,912,246	2,524,165	3,331,897	1,665,949	45,000	45,000
Reactivation fees	17,936	17,936	17,936	17,936	17,936	17,936
Sundry Income	214,885	229,282	244,644	261,035	278,525	297,186
Total revenue	10,762,248	12,784,269	14,362,208	13,788,177	13,400,438	14,593,466
Total expenses	10,453,171	11,908,557	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less Total expenses	**309,077**	**875,712**	**738,172**	**(1,810,434)**	**(4,239,152)**	**(5,849,123)**
Cash reserve	**10,999,880**	**11,413,470**	**11,554,214**	**8,932,417**	**3,621,228**	**(3,615,071)**

Total expenses are estimated to increase to $20.4 million in 2013

Assumptions and analysis

- Projected revenue and expenses and the projected cash reserve are based on projected membership numbers (previous page).
- Assuming no additional NIRs are established, total expenses are projected to increase to $20.4 million in 2013 while total revenue is projected to be $14.6 million in that year.
- The cash reserve is projected to decrease to -$3.6 million in 2013 from $11.0m in 2008.

Base-Case Scenario: Determination of Cash Reserve Target

Summary of projected APNIC Statement of financial performance (assuming no NIRs are established) ($)						
	2008 Budget	**2009**	**2010**	**2011**	**2012**	**2013**
Total revenue	10,762,248	12,784,269	14,362,208	13,788,177	13,400,438	14,593,466
Total expenses	10,453,171	11,908,557	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less Total expenses	**309,077**	**875,712**	**738,172**	**(1,810,434)**	**(4,239,152)**	**(5,849,123)**
Cash reserve	**10,999,880**	**11,413,470**	**11,554,214**	**8,932,417**	**3,621,228**	**(3,615,071)**

Proposed cash reserve target = 18 months of operating expenses in 2013

20,442,589 x 1.5 = **$30,663,884**

Assumptions and analysis

- Operating expenses are projected to increase to $20.4 million in 2013.
- It is recommended that the cash reserve should be increased to 18 months of operating expenses in 2013. This would equate to a cash reserve of approximately $30.6 million in 2013.
- The recommended timeframe to achieve the target cash reserve is 4 years.
- Based on previously outlined assumptions, the cash reserve has been projected to decline to -$3.6 million in 2013.
- In the following pages four options have been analysed in order to understand their potential impact on the financial performance of APNIC to 2013, assuming a new membership fee structure will implemented in 2010.

Option A1: Marginal Change to Fees

Potential Option A1: Marginal Change to Fees

Potential Option A1: Marginal change to fees – Addition of XXL category ($)				
	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
Number of extra large members to become XXL members	3	3	3	3
less fees from extra large members that convert to XXL category	(152,112)	(152,112)	(152,112)	(152,112)
plus XXL fees gained	304,224	304,224	304,224	304,224
Total revenue	14,514,320	13,940,289	13,552,550	14,745,578
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less Total expenses	**890,284**	**(1,658,322)**	**(4,087,040)**	**(5,697,011)**
Cash reserve	11,554,214	9,084,529	3,925,452	(3,158,735)
less reduced fees from extra large members	(152,112)	(152,112)	(152,112)	(152,112)
plus XXL fees gained	304,224	304,224	304,224	304,224
Cash reserve (adjusted for new XXL members)	**11,706,326**	**9,236,641**	**4,077,564**	**(3,006,623)**
18 months operating expenses (cash reserve target)				30,663,884
Difference between projected cash reserve and cash reserve target				**(33,670,507)**

Assumptions and analysis

- This option assumes that a new XXL membership tier will be established.
- The membership fee for the new XXL category is assumed to equal double the Extra Large category fee, namely $101,408 per annum.
- It is assumed that 3 extra large members will be re-categorised as XXL members.
- Based on these assumptions, the addition of an XXL category would still result in a negative cash reserve in 2013 (approximately -$3 million).
- Further, it is projected that total expenses will exceed total revenue over the period 2011 to 2013 resulting in annual net losses.

	Current membership fees ($)
Associate	792
Very Small	1,584
Small	3,169
Medium	6,338
Large	12,676
Very Large	25,352
Extra Large	50,704
XXL	101,408

Option A2: Marginal Change to Fees

Option A2: Marginal Change to Fees - Continuous Model

Assumptions and analysis

- Option A2 assumes that the current membership fee schedule is replaced with a continuous model based on address holdings.
- For ease of understanding, it is proposed to express the formula as a factor by which the fee will increase for each additional bit of address space.
- Under the current structure, that "bit factor" would be exactly 1.25992105. This is the third root of 2, which results in a doubling of the fee for each 3 bits of address space.
- The overall impact of this structure can be adjusted by changing the "start value" or by changing the "bit factor" from 1.25992105.
- For the purpose of this analysis KPMG has assumed that the "bit factor" will remain unchanged from its current level. Hence, the start value represents the key variable in this analysis.

Bracket	Ave IPv4	Ave Prefix	Fee – Example 1	Fee – Example 2	Fee – Example 3
/6	43482752	6.63	$69,593	$99,656	$135,644
/7	25009579	7.42	$57,877	$82,878	$112,807
/8	10429312	8.69	$43,241	$61,920	$84,280
/9	6681792	9.33	$37,277	$53,381	$72,657
/10	2791765	10.59	$27,869	$39,908	$54,319
/11	1340245	11.65	$21,822	$31,249	$42,533
/12	743761	12.50	$17,933	$25,680	$34,953
/13	394541	13.41	$14,517	$20,788	$28,295
/14	189262	14.47	$11,364	$16,273	$22,150
/15	90783	15.53	$8,896	$12,739	$17,339
/16	51478	16.35	$7,363	$10,544	$14,352
/17	26346	17.31	$5,890	$8,434	$11,480
/18	13168	18.32	$4,674	$6,694	$9,111
/19	7645	19.10	$3,900	$5,584	$7,601
/20	3917	20.06	$3,120	$4,468	$6,082
/21	2018	21.02	$2,502	$3,582	$4,876
/22	997	22.04	$1,978	$2,832	$3,855
/23	512	23.00	$1,584	$2,268	$3,087
/24	256	24.00	$1,257	$1,800	$2,450

Key variable: start values

Option A2: Marginal Change to Fees - Continuous Model

Option A2 Marginal change to fees – Continuous model ($) (start value of $1,257)	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
Total revenue	13,861,527	13,272,670	12,867,506	14,047,826
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**237,490**	**(2,325,942)**	**(4,772,084)**	**(6,394,763)**
Cash reserve	11,554,214	8,431,735	2,605,039	(5,164,192)
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
Cash reserve	**11,053,532**	**7,916,228**	**2,072,107**	**(5,709,832)**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(36,373,716)**

Assumptions and analysis

- The above projections are based on a bit factor of 1.2599 and a start value of $1,257.
- Negative operating results are projected over the period 2011 to 2013 decreasing from -$2.3 million in 2011 to -$6.4 million in 2013.
- There is a projected shortfall in the cash reserve target of $36 million.

Option A2: Marginal Change to Fees - Continuous Model (continued)

Option A2 Marginal change to fees – Continuous model ($) (start value of $1,800)

	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	11,805,653	13,228,585	14,906,188	16,185,068
Total revenue	17,308,296	17,121,874	17,189,695	18,714,975
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**3,684,260**	**1,523,262**	**(449,895)**	**(1,727,615)**
Cash reserve	11,554,214	11,878,505	9,901,013	6,453,971
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	11,805,653	13,228,585	14,906,188	16,185,068
Cash reserve	**14,500,302**	**15,212,201**	**13,690,270**	**10,575,479**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(20,088,405)**

Assumptions and analysis

- If it is assumed that a start value of $1,800 and a bit factor of 1.2599 is adopted, total revenue less total expenses is projected to remain positive for 2010 and 2011.
- However, losses are projected for 2012 and 2013.
- It is projected that the cash reserve target will not be met. A shortfall of $20 million is projected.

Option A2: Marginal Change to Fees - Continuous Model (continued)

Option A2 Marginal change to fees – Continuous model ($) (start value of $2,450)

	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	15,931,620	17,836,287	20,080,079	21,771,894
Total revenue	21,434,264	21,729,576	22,363,586	24,301,801
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**7,810,227**	**6,130,965**	**4,723,995**	**3,859,211**
Cash reserve	11,554,214	16,004,472	18,634,683	20,361,531
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	15,931,620	17,836,287	20,080,079	21,771,894
Cash reserve	**18,626,269**	**23,945,871**	**27,597,830**	**30,069,865**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(594,019)**

Assumptions and analysis

- Assuming a start value of $2,450, a positive operating performance is projected over the period 2010 to 2013, albeit surpluses are decreasing over time.
- Further, the cash reserve target is almost met with the cash reserve projected to be approximately $30 million in 2013.

Option B: NIR / Membership Relativity Change

Option B: NIR / Membership Relativity Change

Assumptions and analysis

- Option B assumes that the current membership fee schedule is replaced with a continuous model based on address holdings (as shown in Option A2).
- However, it also assumes that NIRs pay a fee set to X% times the ordinary membership fee.
- Due to the large number of scenarios that in theory could be modelled under the combined options, we have adopted a base for Option A2 which incorporates a start value of $1,257 and a bit value of 1.2599.
- Option B assumes that NIRs pay a fee set to 2 x, 5 x and 15 x the ordinary membership fees.
- We have assumed that the existing six NIRs fall into the following brackets: /6, /6, /7, /9, /12, and /15.

Bracket	Ave IPv4	Ave Prefix	Fee
/6	43482752	6.63	$69,593
/7	25009579	7.42	$57,877
/8	10429312	8.69	$43,241
/9	6681792	9.33	$37,277
/10	2791765	10.59	$27,869
/11	1340245	11.65	$21,822
/12	743761	12.50	$17,933
/13	394541	13.41	$14,517
/14	189262	14.47	$11,364
/15	90783	15.53	$8,896
/16	51478	16.35	$7,363
/17	26346	17.31	$5,890
/18	13168	18.32	$4,674
/19	7645	19.10	$3,900
/20	3917	20.06	$3,120
/21	2018	21.02	$2,502
/22	997	22.04	$1,978
/23	512	23.00	$1,584
/24	256	24.00	$1,257

Under the continuous model fee schedule three scenarios have been modelled where NIRs pay a fee set to 2 x, 5 x and 15 x, the ordinary membership fees.

Option B: NIR / Membership Relativity Change

Option B: NIR / Membership Relativity Change – NIRs pay 2 x ordinary membership fees based on a continuous model with a start value of $1,257 and a bit value of 1.2599				
	2010	**2011**	**2012**	**2013**
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	261,170	261,170	261,170	261,170
Total revenue	14,122,696	13,533,840	13,128,676	14,308,996
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**498,660**	**(2,064,772)**	**(4,510,914)**	**(6,133,593)**
Cash reserve	11,554,214	8,692,905	3,127,379	(4,380,682)
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	261,170	261,170	261,170	261,170
Cash reserve	**11,314,702**	**8,438,568**	**2,855,617**	**(4,665,152)**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(35,329,036)**

Under a scenario where NIRs pay 2 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $35 million is projected.

Option B: NIR / Membership Relativity Change

Option B: NIR / Membership Relativity Change – NIRs pay 5 x ordinary membership fees based on a continuous model with a start value of $1,257 and a bit value of 1.2599	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	1,044,680	1,044,680	1,044,680	1,044,680
Total revenue	14,906,206	14,317,350	13,912,186	15,092,506
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**1,282,170**	**(1,281,262)**	**(3,727,404)**	**(5,350,083)**
Cash reserve	11,554,214	9,476,415	4,694,399	(2,030,152)
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	1,044,680	1,044,680	1,044,680	1,044,680
Cash reserve	**12,098,212**	**10,005,588**	**5,206,147**	**(1,531,112)**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(32,194,996)**

Under a scenario where NIRs pay 5 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $32 million is projected.

Option B: NIR / Membership Relativity Change

Option B: NIR / Membership Relativity Change – NIRs pay 15 x ordinary membership fees based on a continuous model with a start value of $1,257 and a bit value of 1.2599	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	3,656,379	3,656,379	3,656,379	3,656,379
Total revenue	17,517,905	16,929,049	16,523,885	17,704,205
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less total expenses	**3,893,869**	**1,330,437**	**(1,115,705)**	**(2,738,384)**
Cash reserve	11,554,214	12,088,114	9,917,796	5,804,944
less membership fees based on current tier schedule	(8,859,565)	(9,894,888)	(11,116,931)	(12,063,559)
plus membership fees based on a continuous model	8,358,883	9,379,381	10,583,999	11,517,919
plus membership fees for NIRs	3,656,379	3,656,379	3,656,379	3,656,379
Cash reserve	**14,709,911**	**15,228,985**	**13,041,243**	**8,915,683**
18 months operating expenses (cash reserve target)				30,663,884
Difference between cash reserve and cash reserve target				**(21,748,201)**

Under a scenario where NIRs pay 15 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $22 million is projected.

Option C: Uniform Membership Model

Potential Option C: Uniform Membership Model

Count of NIR members projected by Membership Category

	Adopted Growth Rate	NIR Members 2008 Actual	Projected NIR Members 2009	Projected NIR Members 2010	Projected NIR Members 2011	Projected NIR Members 2012	Projected NIR Members 2013
Associate	23.4%	0	0	0	0	0	0
Very Small	23.4%	87	107	132	163	202	249
Small	13.2%	486	550	623	705	798	903
Medium	4.7%	271	284	297	311	326	341
Large	3.3%	126	130	134	139	143	148
Very Large	1.9%	34	35	35	36	37	37
Extra Large	0.0%	7	7	7	7	7	7
Total		**1,011**	**1,113**	**1,229**	**1,361**	**1,513**	**1,686**

Assumptions and analysis

- Option C assesses all NIR members according to the APNIC ordinary fee schedule.
- From the fees generated under this model, a percentage is retained by the NIRs and the remaining amount passes to APNIC.
- In the table above existing NIR members have been projected to grow in line with the adopted growth rate used for all members.
- Based on the adopted growth rates, NIR members are estimated to grow to a total of 1,686 by 2013 assuming no additional NIRs are introduced over the period to 2013.

Potential Option C: Uniform Membership Model

Membership fees from projected NIR members 2010 to 2013					
Membership category	**Membership Fees ($)**	**Projected membership fees 2010 ($)**	**Projected membership fees 2011 ($)**	**Projected membership fees 2012 ($)**	**Projected membership fees 2013 ($)**
Associate	**792**	0	0	0	0
Very Small	**1,584**	209,848	258,952	319,547	394,321
Small	**3,169**	1,973,565	2,234,075	2,528,973	2,862,798
Medium	**6,338**	1,882,846	1,971,340	2,063,993	2,161,001
Large	**12,676**	1,704,329	1,760,572	1,818,671	1,878,687
Very Large	**25,352**	895,034	912,040	929,368	947,026
Extra Large	**50,704**	354,928	354,928	354,928	354,928
Grand Total		**7,020,550**	**7,491,907**	**8,015,481**	**8,598,761**

Assumptions and analysis

- The current APNIC fee schedule has been applied to projected NIR members by membership categories over the period 2010 to 2013.
- The total potential revenue from NIR members is projected to increase from $7 million to $8.6 million over the period 2010 to 2013.
- Under the Uniform Membership Model, a percentage of the projected revenue would pass to APNIC and the remainder would be retained by NIRs. KPMG has conducted scenario analysis which assumes the following percentage of potential revenue passes to APNIC: 40%, 60%, and 100%. The results of this analysis are detailed in the following pages.

Potential Option C: Uniform Membership Model

40% of projected NIR membership fees pass to APNIC ($)	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	2,808,220	2,996,763	3,206,192	3,439,504
Total revenue	13,534,307	14,814,767	16,257,406	17,683,746
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Revenue less expenses	**(89,730)**	**(783,844)**	**(1,382,184)**	**(2,758,843)**
Cash reserve	11,554,214	8,104,515	3,819,917	(559,414)
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	2,808,220	2,996,763	3,206,192	3,439,504
Cash reserve	**10,726,312**	**9,131,105**	**6,676,885**	**2,530,866**
18 months operating expenses (cash reserve target)				30,663,884
Difference between projected cash reserve and cash reserve target				**(28,133,018)**

Assumptions and analysis

- Under the Uniform Membership Model, it is assumed that NIRs no longer are required to pay Per Allocation Fees or NIR membership fees. Accordingly these projected figures have been reversed out of revenue.
- Assuming that APNIC receives 40% of NIR membership fees from projected NIR members under the current membership fees schedule, total revenue is projected to increase from $13.5 million to $17.7 million over the period 2010 to 2013. However, this increase is not sufficient to offset the growth in total expenses and as such a loss is incurred each year over the four year period.
- Throughout this period APNIC's cash reserve is projected to remain positive, however it is projected to decline from $10.7 million to $2.5 million.
- Under this scenario a target cash reserve equivalent to 18 months of operating expenses would still not be achieved. A shortfall of $28 million is projected.

Potential Option C: Uniform Membership Model

60% of projected NIR membership fees pass to APNIC ($)	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	4,212,330	4,495,144	4,809,288	5,159,257
Total revenue	14,938,417	16,313,149	17,860,502	19,403,499
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Total revenue less Total expenses	**1,314,380**	**714,537**	**220,912**	**(1,039,091)**
Cash reserve	11,554,214	9,508,625	6,722,408	3,946,174
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	4,212,330	4,495,144	4,809,288	5,159,257
Cash reserve	**12,130,422**	**12,033,597**	**11,182,473**	**8,756,206**
18 months operating expenses (cash reserve target)				30,663,884
Difference between projected cash reserve and cash reserve target				**(21,907,678)**

Assumptions and analysis

- Under a scenario where APNIC receives 60% of NIR member fees, total revenue is projected to grow to $19.4 million in 2013.
- Over the period 2010 to 2012 total revenue exceeds total expenses, however, in 2013 a loss of approximately $1 million is projected.
- The cash reserve remains positive over the period 2010 to 2013, though, it is decreasing.
- Under this scenario a cash reserve equivalent to 18 months of operating expenses would still not be achieved. A shortfall of $22 million is projected.

Potential Option C: Uniform Membership Model

100% of projected NIR membership fees pass to APNIC ($)	2010	2011	2012	2013
Revenue	14,362,208	13,788,177	13,400,438	14,593,466
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	7,020,550	7,491,907	8,015,481	8,598,761
Total revenue	17,746,637	19,309,912	21,066,695	22,843,003
Total expenses	13,624,036	15,598,612	17,639,590	20,442,589
Revenue less expenses	**4,122,600**	**3,711,300**	**3,427,104**	**2,400,414**
Cash reserve	11,554,214	12,316,845	12,527,391	12,957,349
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(304,224)	(304,224)	(304,224)	(304,224)
plus membership fees from NIR members under Uniform Membership Model	7,020,550	7,491,907	8,015,481	8,598,761
Cash reserve	**14,938,642**	**17,838,580**	**20,193,648**	**21,206,885**
18 months operating expenses (cash reserve target)				30,663,884
Difference between projected cash reserve and cash reserve target				**(9,456,999)**

Assumptions and analysis

- Under a scenario where APNIC receives 100% of NIR member fees, total revenue is projected to grow to $22.8 million in 2013.
- Total revenue is projected to be greater than total expenses each year over the period 2010 to 2013, however, the surpluses are projected to decline over the period.
- The cash reserve is projected to increase from $14.9 million to $21.2 million over the period.
- It is projected that the cash reserve target would not be achieved. A shortfall of $9 million is projected.

KPMG

Summary of Options

Summary of Options (assuming no additional NIRs)

Summary of options (no new NIRs)	**2010**	**2011**	**2012**	**2013**
"Do Nothing" scenario				
Revenue less expenses	738,172	(1,810,434)	(4,239,152)	(5,849,123)
Cash reserve	11,554,214	8,932,417	3,621,228	(3,615,071)
Option A1: Marginal change to fees – Addition of XXL category				
Revenue less expenses	890,284	(1,658,322)	(4,087,040)	(5,697,011)
Cash reserve	11,706,326	9,236,641	4,077,564	(3,006,623)
Option A2: Continuous model to replace existing membership tiers (assuming $1,257 start value)				
Revenue less expenses	237,490	(2,325,942)	(4,772,084)	(6,394,763)
Cash reserve	11,053,532	7,916,228	2,072,107	(5,709,832)
Option A2: Continuous model to replace existing membership tiers (assuming $1,800 start value)				
Revenue less expenses	3,684,260	1,523,262	(449,895)	(1,727,615)
Cash reserve	14,500,302	15,212,201	13,690,270	10,575,479
Option A2: Continuous model to replace existing membership tiers (assuming $2,450 start value)				
Revenue less expenses	7,810,227	6,130,965	4,723,995	3,859,211
Cash reserve	18,626,269	23,945,871	27,597,830	30,069,865
Option B: NIR / Membership Relativity Change – **NIRs pay 2 x** ordinary fees (assuming $1,257 start value)				
Revenue less expenses	498,660	(2,064,772)	(4,510,914)	(6,133,593)
Cash reserve	11,314,702	8,438,568	2,855,617	(4,665,152)
Option B: NIR / Membership Relativity Change – **NIRs pay 5 x** ordinary fees (assuming $1,257 start value)				
Revenue less expenses	1,282,170	(1,281,262)	(3,727,404)	(5,350,083)
Cash reserve	12,098,212	10,005,588	5,206,147	(1,531,112)
Option B: NIR / Membership Relativity Change – **NIRs pay 15 x** ordinary fees (assuming $1,257 start value)				
Revenue less expenses	3,893,869	1,330,437	(1,115,705)	(2,738,384)
Cash reserve	14,709,911	15,228,985	13,041,243	8,915,683
Option C: Uniform Membership Model: **40%** of NIR membership fees pass to APNIC				
Revenue less expenses	(89,730)	(783,844)	(1,382,184)	(2,758,843)
Cash reserve	10,726,312	9,131,105	6,676,885	2,530,866
Option C: Uniform Membership Model: **60%** of NIR membership fees pass to APNIC				
Revenue less expenses	1,314,380	714,537	220,912	(1,039,091)
Cash reserve	12,130,422	12,033,597	11,182,473	8,756,206
Option C: Uniform Membership Model: **100%** of NIR membership fees pass to APNIC				
Revenue less expenses	4,122,600	3,711,300	3,427,104	2,400,414
Cash reserve	14,938,642	17,838,580	20,193,648	21,206,885

Options analysed assuming NIRs in Australia, Hong Kong and India

Options analysed assuming NIRs in Australia, Hong Kong and India

APNIC Projected Membership with Introduction of NIRs in Australia, Hong Kong and India						
Membership Category	**2008 Actual**	**2009**	**2010**	**2011**	**2012**	**2013**
Associate	315	389	306	373	456	555
Very small	396	489	294	350	415	488
Small	834	944	671	760	859	972
Medium	251	263	162	170	178	186
Large	85	88	55	57	59	61
Very large	28	29	19	19	20	20
Extra large	10	10	13	13	13	13
Grand Total	**1,919**	**2,211**	**1,520**	**1,742**	**1,999**	**2,296**

Assumptions and analysis

- In line with the requirements of Task 2, KPMG have determined the financial impact of the introduction of new NIRs.
- It was assumed that NIRs will be introduced in Australia, Hong Kong and India.
- It was further assumed that NIRs in Australia, Hong Kong and India would be introduced in 2010 and that 90% of members in these countries would transition to NIRs.
- As a result of these assumptions, APNIC projected membership is reduced each year from 2010 onwards.
- Each NIR in Australia, Hong Kong and India was projected to effectively become an Extra large category member. This accounts for the growth in this category in 2010.

Options analysed assuming NIRs in Australia, Hong Kong and India

Projected APNIC Statement of financial performance (assuming NIRs established in Australia, Hong Kong and India) ($)						
	2008	**2009**	**2010**	**2011**	**2012**	**2013**
IP Resource Application Fees	963,960	924,068	621,582	702,733	814,148	941,282
Interest Income	721,997	788,204	434,155	98,406	0	0
Membership Fee Income	6,732,908	8,082,724	5,706,720	6,248,516	6,867,203	7,363,003
Non-Member Fees	198,316	217,890	239,396	263,024	288,984	317,507
Per Allocation Fees	1,912,246	2,524,165	3,331,897	1,665,949	45,000	45,000
Reactivation Fees	17,936	17,936	17,936	17,936	17,936	17,936
Sundry Income	214,885	229,282	244,644	261,035	278,525	297,186
Total revenue	10,762,248	12,784,269	10,596,330	9,257,599	8,311,796	8,981,914
Total expenses	10,453,171	11,908,557	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less Total expenses	**309,077**	**875,712**	**(1,818,524)**	**(4,921,418)**	**(7,620,764)**	**(9,410,993)**
Cash reserve	**10,999,880**	**11,413,470**	**8,948,983**	**3,151,344**	**(5,636,334)**	**(16,556,913)**

Assumptions and analysis

- The introduction of NIRs in Australia, Hong Kong and India is projected to have a negative impact on the operating results of APNIC.
- Total revenue less total expenses is projected to reach negative $9.4 million in 2013.
- The cash reserve is projected to reach negative $16.6 million by 2013.
- Due to the variable nature of some cost items it is projected that total expenses (and the cash reserve target) would reduce if these new NIRs are introduced (refer our 9 October 2008 report for further information).

Total expenses are estimated to increase to $18.4 million in 2013. Accordingly, the cash reserve target of 18 months operating expenses would equate to $27,589,360

Option A1: Marginal Change of Fees (incorporating NIRs in Australia, Hong Kong and India)

Option A1: Marginal Change to fees (incorporating NIRs in Australia, Hong Kong and India)

Potential Option A1: Marginal Change to fees				
	2010	**2011**	**2012**	**2013**
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
Number of extra large members to become XXL members	3	3	3	3
less fees from extra large members that convert to XXL category	(152,112)	(152,112)	(152,112)	(152,112)
plus XXL fees gained	304,224	304,224	304,224	304,224
Total revenue	10,748,442	9,409,711	8,463,908	9,134,026
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less Total expenses	**(1,666,412)**	**(4,769,306)**	**(7,468,652)**	**(9,258,881)**
Cash reserve (prior to XXL members)	8,948,983	3,303,456	(5,332,110)	(16,100,577)
less reduced fees from extra large members	(152,112)	(152,112)	(152,112)	(152,112)
plus XXL fees gained	304,224	304,224	304,224	304,224
Cash reserve (adjusted for new XXL members)	**9,101,095**	**3,455,568**	**(5,179,998)**	**(15,948,465)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(43,537,825)**

Assumptions and analysis

- As outlined previously, this option assumes that a new XXL membership tier will be established in 2010.
- The expenses under this option are lower than under Option A2 which assumes no new NIRs will be introduced. This is a result of the variable nature of certain expense items.
- Based on the model incorporating NIRs in Australia, Hong Kong and India the addition of an XXL category would result in a negative cash reserve in 2013 of approximately -$16 million. This results in a projected shortfall in the cash reserve target of $44 million.

Option A2: Marginal Change to Fees (incorporating NIRs in Australia, Hong Kong and India)

Option A2: Marginal Change to Fees - Continuous Model

Assumptions and analysis

- Option A2 assumes that the current membership fee schedule is replaced with a continuous model based on address holdings.
- For ease of understanding, it is proposed to express the formula as a factor by which the fee will increase for each additional bit of address space.
- Under the current structure, that "bit factor" would be exactly 1.25992105. This is the third root of 2, which results in a doubling of the fee for each 3 bits of address space.
- The overall impact of this structure can be adjusted by changing the "start value" or by changing the "bit factor" from 1.25992105.
- For the purpose of this analysis KPMG has assumed that the "bit factor" will remain unchanged from its current level. Hence, the start value represents the key variable in this analysis.

Bracket	Ave IPv4	Ave Prefix	Fee – Example 1	Fee – Example 2	Fee – Example 3
/6	43482752	6.63	$69,593	$99,656	$135,644
/7	25009579	7.42	$57,877	$82,878	$112,807
/8	10429312	8.69	$43,241	$61,920	$84,280
/9	6681792	9.33	$37,277	$53,381	$72,657
/10	2791765	10.59	$27,869	$39,908	$54,319
/11	1340245	11.65	$21,822	$31,249	$42,533
/12	743761	12.50	$17,933	$25,680	$34,953
/13	394541	13.41	$14,517	$20,788	$28,295
/14	189262	14.47	$11,364	$16,273	$22,150
/15	90783	15.53	$8,896	$12,739	$17,339
/16	51478	16.35	$7,363	$10,544	$14,352
/17	26346	17.31	$5,890	$8,434	$11,480
/18	13168	18.32	$4,674	$6,694	$9,111
/19	7645	19.10	$3,900	$5,584	$7,601
/20	3917	20.06	$3,120	$4,468	$6,082
/21	2018	21.02	$2,502	$3,582	$4,876
/22	997	22.04	$1,978	$2,832	$3,855
/23	512	23.00	$1,584	$2,268	$3,087
/24	256	24.00	$1,257	$1,800	$2,450

Key variable: start values

Option A2: Marginal Change to Fees - Continuous Model

Option A2 Marginal change to fees – Continuous model ($) (start value of $1,257)	2010	2011	2012	2013
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	5,334,646	5,864,780	6,470,244	6,956,085
Total revenue	10,224,257	8,873,864	7,914,837	8,574,996
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**(2,190,597)**	**(5,305,154)**	**(8,017,723)**	**(9,817,910)**
Cash reserve	8,948,983	2,779,271	(6,392,143)	(17,709,681)
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	5,334,646	5,864,780	6,470,244	6,956,085
Cash reserve	**8,576,909**	**2,395,535**	**(6,789,102)**	**(18,116,598)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(45,705,959)**

Assumptions and analysis

- The above projections are based on a bit factor of 1.2599 and a start value of $1,257.
- Negative operating results are projected over the period 2010 to 2013 decreasing from -$2 million in 2010 to -$9.8 million in 2013.
- There is a projected shortfall in the cash reserve target of $46 million.

Option A2: Marginal Change to Fees - Continuous Model (continued)

Option A2 Marginal change to fees – Continuous model ($) (start value of $1,800)	2010	2011	2012	2013
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	7,534,537	8,270,514	9,109,394	9,771,000
Total revenue	12,424,148	11,279,598	10,553,987	11,389,911
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**9,293**	**(2,899,419)**	**(5,378,574)**	**(7,002,995)**
Cash reserve	8,948,983	4,979,161	(1,786,518)	(10,464,907)
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	7,534,537	8,270,514	9,109,394	9,771,000
Cash reserve	**10,776,800**	**7,001,160**	**455,672**	**(8,056,909)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(35,646,269)**

Assumptions and analysis

- If it is assumed that a start value of $1,800 and a bit factor of 1.2599 is adopted, total revenue less total expenses is projected to be negative over the period 2011 to 2013, declining from -$2.8 million to -$7 million.
- However, it is projected that the cash reserve target will not be met. A shortfall of $36 million is projected.

Option A2: Marginal Change to Fees - Continuous Model (continued)

Option A2 Marginal change to fees – Continuous model ($) (start value of $2,450)	2010	2011	2012	2013
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	10,167,924	11,150,307	12,268,597	13,140,604
Total revenue	15,057,534	14,159,390	13,713,190	14,759,515
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**2,642,680**	**(19,627)**	**(2,219,371)**	**(3,633,392)**
Cash reserve	8,948,983	7,612,548	3,726,661	(1,792,525)
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	10,167,924	11,150,307	12,268,597	13,140,604
Cash reserve	**13,410,186**	**12,514,339**	**9,128,054**	**3,985,076**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(23,604,284)**

Assumptions and analysis

- Assuming a start value of $2,450, the projected operating performance of APNIC is still negative over the period 2011 to 2013, declining from -$19,627 to -$3.6 million over this period.
- Further, a shortfall in the cash reserve target of $24 million is projected.

Option B: NIR / Membership Relativity Change (incorporating NIRs in Australia, Hong Kong and India)

Option B: NIR / Membership Relativity Change (incorporating NIRs in Australia, Hong Kong and India)

Assumptions and analysis

- As detailed previously Option B assumes that the current membership fee schedule is replaced with a continuous model based on address holdings (as shown in Option A2).
- Further, it also assumes that NIRs pay a fee set to X% times the ordinary membership fee.
- All other assumptions remain the same as previously detailed under Option B (without additional NIRs).
- In addition, we have assumed that new NIRs in Australia, Hong Kong and India will fall into a /6 bracket.

Bracket	Ave IPv4	Ave Prefix	Fee
/6	43482752	6.63	$69,593
/7	25009579	7.42	$57,877
/8	10429312	8.69	$43,241
/9	6681792	9.33	$37,277
/10	2791765	10.59	$27,869
/11	1340245	11.65	$21,822
/12	743761	12.50	$17,933
/13	394541	13.41	$14,517
/14	189262	14.47	$11,364
/15	90783	15.53	$8,896
/16	51478	16.35	$7,363
/17	26346	17.31	$5,890
/18	13168	18.32	$4,674
/19	7645	19.10	$3,900
/20	3917	20.06	$3,120
/21	2018	21.02	$2,502
/22	997	22.04	$1,978
/23	512	23.00	$1,584
/24	256	24.00	$1,257

Option B: NIR / Membership Relativity Change (incorporating NIRs in Australia, Hong Kong and India)

Option B: NIR / Membership Relativity Change – NIRs pay 2 x ordinary membership fees based on a continuous model with a start value of $1,257 and a bit value of 1.2599	2010	2011	2012	2013
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	988,486	988,486	988,486	988,486
Total revenue	10,718,500	9,368,106	8,409,080	9,069,239
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**(1,696,355)**	**(4,810,911)**	**(7,523,480)**	**(9,323,668)**
Cash reserve	8,948,983	3,273,513	(5,403,657)	(16,226,953)
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	988,486	988,486	988,486	988,486
Cash reserve	**9,071,152**	**3,384,021**	**(5,306,374)**	**(16,139,627)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(43,728,987)**

Under a scenario where NIRs pay 2 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $44 million is projected.

Option B: NIR / Membership Relativity Change (incorporating NIRs in Australia, Hong Kong and India)

Option B: NIR / Membership Relativity Change – NIRs pay 5 x ordinary membership fees based on a continuous model with a start value of $1,257 and a bit value of 1.2599				
	2010	**2011**	**2012**	**2013**
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	2,471,214	2,471,214	2,471,214	2,471,214
Total revenue	12,201,228	10,850,835	9,891,808	10,551,968
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**(213,626)**	**(3,328,182)**	**(6,040,752)**	**(7,840,939)**
Cash reserve	8,948,983	4,756,242	(2,438,200)	(11,778,767)
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	2,471,214	2,471,214	2,471,214	2,471,214
Cash reserve	**10,553,880**	**6,349,478**	**(858,188)**	**(10,208,713)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(37,798,073)**

Under a scenario where NIRs pay 5 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $37 million is projected.

Option B: NIR / Membership Relativity Change (incorporating NIRs in Australia, Hong Kong and India)

Option B: NIR / Membership Relativity Change – NIRs pay 15 x ordinary membership fees based continuous model with a start value of $1,257 and a bit value of 1.2599				
	2010	2011	2012	2013
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	7,413,642	7,413,642	7,413,642	7,413,642
Total revenue	17,143,657	15,793,263	14,834,237	15,494,396
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**4,728,802**	**1,614,246**	**(1,098,324)**	**(2,898,511)**
Cash reserve	8,948,983	9,698,670	7,446,656	3,048,518
less membership fees based on current tier schedule	(5,706,720)	(6,248,516)	(6,867,203)	(7,363,003)
plus membership fees based on a continuous model	4,840,404	5,370,537	5,976,001	6,461,843
plus membership fees for NIRs	7,413,642	7,413,642	7,413,642	7,413,642
Cash reserve	**15,496,309**	**16,234,334**	**13,969,097**	**9,561,000**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(18,028,360)**

Under a scenario where NIRs pay 15 x ordinary membership fees, the cash reserve target would not be met. A shortfall of $18 million is projected.

Option C: Uniform Membership Model (incorporating NIRs in Australia, Hong Kong and India)

Option C: Uniform Membership Model (incorporating NIRs in Australia, Hong Kong and India)

Membership fees from projected NIR members 2010 to 2013 (incorporating NIRs in Australia, Hong Kong and India

	Membership Fees ($)	Projected membership fees 2010 ($)	Projected membership fees 2011 ($)	Projected membership fees 2012 ($)	Projected membership fees 2013 ($)
Associate	792	137,815	173,088	217,659	274,067
Very Small	1,584	699,199	883,260	1,117,457	1,415,965
Small	3,169	3,232,834	3,660,726	4,145,257	4,693,924
Medium	6,338	2,598,026	2,721,369	2,850,574	2,985,922
Large	12,676	2,161,575	2,230,271	2,301,235	2,374,541
Very Large	25,352	1,151,270	1,170,977	1,191,058	1,211,520
Extra Large	50,704	446,195	446,195	446,195	446,195
Total		**10,426,915**	**11,285,886**	**12,269,436**	**13,402,134**

Assumptions and analysis

- Option C assesses all NIR members according to the APNIC ordinary fee schedule.
- The current APNIC fee schedule has been applied to projected NIR members by membership categories over the period 2010 to 2013 incorporating NIRs in Australia, Hong Kong and India.
- The total potential revenue from NIR members is projected to increase from $10.4 million to $13.4 million over the period 2010 to 2013.
- As previously mentioned, under the Uniform Membership Model, a percentage of the projected revenue would pass to APNIC and the remainder would be retained by NIRs. KPMG has conducted scenario analysis which assumes the following percentage of potential revenue passes to APNIC: 40%, 60% and 100%. The results of this analysis are detailed in the following pages.

Option C: Uniform Membership Model (incorporating NIRs in Australia, Hong Kong and India)

40% of projected NIR membership fees pass to APNIC ($)				
	2010	**2011**	**2012**	**2013**
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus membership fees from NIR members under Uniform Membership Model	4,170,766	4,514,354	4,907,774	5,360,854
Total revenue	10,978,863	11,649,669	12,718,235	13,841,431
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**(1,435,991)**	**(2,529,348)**	**(3,214,325)**	**(4,551,475)**
Cash reserve	8,948,983	3,533,877	(2,861,732)	(9,375,872)
less reduced fees from extra large members	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus membership fees from NIR members under Uniform Membership Model	4,170,766	4,514,354	4,907,774	5,360,854
Cash reserve	**9,331,515**	**5,925,946**	**1,544,707**	**(4,516,354)**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(32,105,715)**

Assumptions and analysis

- The current APNIC fee schedule has been applied to projected NIR members by membership categories over the period 2010 to 2013 incorporating NIRs in Australia, Hong Kong and India.
- Assuming that APNIC receives 40% of NIR membership fees from projected NIR members under the current membership fee schedule total revenue is projected to increase from $10.9 million to $13.8 million over the period 2010 to 2013.
- However, total revenue less total expenses is projected to decline to $4.5 million in 2013.
- It is projected that the cash reserve target would not be achieved, with a shortfall of $32 million projected.

Option C: Uniform Membership Model (incorporating NIRs in Australia, Hong Kong and India)

60% of projected NIR membership fees pass to APNIC				
	2010	**2011**	**2012**	**2013**
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus membership fees from NIR members under Uniform Membership Model	6,256,149	6,771,532	7,361,661	8,041,280
Total revenue	13,064,246	13,906,846	15,172,122	16,521,858
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**649,392**	**(272,171)**	**(760,438)**	**(1,871,049)**
Cash reserve	8,948,983	5,619,260	1,480,829	(2,579,425)
less reduced fees from extra large members	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus membership fees from NIR members under Uniform Membership Model	6,256,149	6,771,532	7,361,661	8,041,280
Cash reserve	**11,416,898**	**10,268,507**	**8,341,154**	**4,960,520**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(22,628,840)**

Assumptions and analysis

- Assuming 60% of NIR member fees were received by APNIC total revenue would increase to $16.5 million in 2013.
- However, it is projected that total revenue less total expenses would be negative over the period 2011 to 2013.
- Further, the cash reserve target would still not be achieved. A shortfall of $22.6 million is projected.

Option C: Uniform Membership Model (incorporating NIRs in Australia, Hong Kong and India)

100% of projected NIR membership fees pass to APNIC ($)				
	2,010	**2,011**	**2,012**	**2,013**
Revenue	10,596,330	9,257,599	8,311,796	8,981,914
less Per Allocation Fees	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus membership fees from NIR members under Uniform Membership Model	10,426,915	11,285,886	12,269,436	13,402,134
Total revenue	17,235,012	18,421,200	20,079,896	21,882,712
Total expenses	12,414,854	14,179,017	15,932,560	18,392,907
Total revenue less total expenses	**4,820,158**	**4,242,183**	**4,147,336**	**3,489,805**
Cash reserve	8,948,983	9,790,026	10,165,949	11,013,470
less reduced fees from extra large members	(3,331,897)	(1,665,949)	(45,000)	(45,000)
less NIR membership fees based on current fee schedule	(456,336)	(456,336)	(456,336)	(456,336)
plus XXL fees gained	10,426,915	11,285,886	12,269,436	13,402,134
Cash reserve	**15,587,664**	**18,953,627**	**21,934,049**	**23,914,268**
18 months operating expenses (cash reserve target)				27,589,360
Difference between cash reserve and cash reserve target				**(3,675,092)**

Assumptions and analysis

- Under a scenario where APNIC received 100% of NIR member fees, revenue is projected to reach $21.8 million in 2013.
- Total revenue less total expenses is projected to remain positive over the period 2010 to 2013, albeit gradually decreasing.
- However, the cash reserve target would not be met. A shortfall of $3.7 million is projected.

Summary of Options (with NIRs in Australia, Hong Kong and India)

Summary of options (With NIRs in Australia, Hong Kong and India)				
	2010	**2011**	**2012**	**2013**
"Do Nothing" scenario				
Revenue less expenses	(1,818,524)	(4,921,418)	(7,620,764)	(9,410,993)
Cash reserve	8,948,983	3,151,344	(5,636,334)	(16,556,913)
Option A1: Marginal change to fees – Addition of XXL category				
Revenue less expenses	(1,666,412)	(4,769,306)	(7,468,652)	(9,258,881)
Cash reserve	9,101,095	3,455,568	(5,179,998)	(15,948,465)
Option A2: Continuous model to replace existing membership tiers (assuming $1,257 start value)				
Revenue less expenses	(2,190,597)	(5,305,154)	(8,017,723)	(9,817,910)
Cash reserve	8,576,909	2,395,535	(6,789,102)	(18,116,598)
Option A2: Continuous model to replace existing membership tiers (assuming $1,800 start value)				
Revenue less expenses	9,293	(2,899,419)	(5,378,574)	(7,002,995)
Cash reserve	10,776,800	7,001,160	455,672	(8,056,909)
Option A2: Continuous model to replace existing membership tiers (assuming $2,450 start value)				
Revenue less expenses	2,642,680	(19,627)	(2,219,371)	(3,633,392)
Cash reserve	13,410,186	12,514,339	9,128,054	3,985,076
Option B: NIR / Membership Relativity Change – **NIRs pay 2 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	(1,696,355)	(4,810,911)	(7,523,480)	(9,323,668)
Cash reserve	9,071,152	3,384,021	(5,306,374)	(16,139,627)
Option B: NIR / Membership Relativity Change – **NIRs pay 5 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	(213,626)	(3,328,182)	(6,040,752)	(7,840,939)
Cash reserve	10,553,880	6,349,478	(858,188)	(10,208,713)
Option B: NIR / Membership Relativity Change – **NIRs pay 15 x** ordinary fees per IP address (assuming $1,257 start value)				
Revenue less expenses	4,728,802	1,614,246	(1,098,324)	(2,898,511)
Cash reserve	15,496,309	16,234,334	13,969,097	9,561,000
Option C: Uniform Membership Model: **40%** of NIR membership fees pass to APNIC				
Revenue less expenses	(1,435,991)	(2,529,348)	(3,214,325)	(4,551,475)
Cash reserve	9,331,515	5,925,946	1,544,707	(4,516,354)
Option C: Uniform Membership Model: **60%** of NIR membership fees pass to APNIC				
Revenue less expenses	649,392	(272,171)	(760,438)	(1,871,049)
Cash reserve	11,416,898	10,268,507	8,341,154	4,960,520
Option C: Uniform Membership Model: **100%** of NIR membership fees pass to APNIC				
Revenue less expenses	4,820,158	4,242,183	4,147,336	3,489,805
Cash reserve	15,587,664	18,953,627	21,934,049	23,914,268

Recommendations

Overarching Recommendations

KPMG has analysed a number of potential membership fee structure options for APNIC. As part of developing such options KPMG believes that it would be financially prudent for APNIC to adopt the following recommendations irrespective of which option the EC will ultimately implement.

Recommendation	Comment
Frequency of fee review to occur annually.	Benchmarks undertaken in July 2008 indicate that an annual review of fees assists in cost recovery of operations and budget setting. We believe that it would be financially prudent that APNIC EC review (and if necessary adjust) its fee levels annually, to ensure that revenue and capital reserve targets are able to be met.
Level of cash reserve to be maintained at 18 months of future operating expenses.	Research undertaken by KPMG and presented to APNIC in July indicated that cash reserves of membership organisations are generally in the order of 12-36 months of operating expenses. It is recommended that it would be financially prudent to increase the level of APNIC's cash reserve from the current level of 12 months to 18 months. This would bring APNIC in line with ARIN and provide additional protection against current and future economic downturns.
Timeframe to achieve cash reserve: 4 years (2013).	Assuming the introduction of a new fee structure at the beginning of 2010, KPMG recommends that APNIC EC should aim to achieve the proposed cash reserve target in 4 years (i.e. 2013).
Discounted membership fees to be provided to LDC's (Least Developed Countries).	It is recommended that APNIC provide discounts to LDC's as defined by the United Nations. These discounts have not been modelled, however, it is recognised that LDC's constitute less 10% of total members of APNIC. Accordingly, any discount provided would not have a major impact on APNIC's financial position.

Recommendations – Membership Fee Options

Based on the analysis presented in this report and previous reports completed by KPMG we propose that the EC consider the following recommendations:

Recommendations – Membership fee options	
Issue	**Recommendations**
• Timing of fee change	• Our analysis has identified that unless APNIC adopts a new membership fee structure its operations will not be financially viable over the long-term. • Therefore, the EC should be preparing for a fee change as soon as possible (i.e. 2010) to allow sufficient time to communicate the proposed changes to the membership and allow a planned implementation of the new membership fee schedule irrespective of which option the EC ultimately decides to pursue.
• IPv6 fee schedule needs consideration	• All options analysed as part of this study have clearly highlighted that the options investigated only provide a temporary solution to APNIC (i.e. until the end of 2011) unless significant fee increases are introduced in 2010. • The IPv6 schedule post 2011 is not sustainable. KPMG recommends that the EC undertake a separate study to determine an appropriate IPv6 fee schedule post 2011. • Further, it is recommended that IPv6 fees should be linked to some other basis than address holdings unless the fee model would consider the ageing of address holdings. KPMG's benchmarking study presented to the EC in July 2008 provides an overview of alternative bases that could be considered for a new IPv6 schedule. • As this would present a fundamental change to the current fee structure KPMG is of the view that that this this will require a longer period to implement and to be communicated and accepted by the APNIC membership. As such, it is recommended that APNIC commence this study in the near team to allow sufficient time for the transition to a new IPv6 fee structure in 2012.

Recommendations – Membership Fee Options (continued)

Recommendations – Membership fee options	
Issue	**Recommendations**
• Fee structure	• Based on the options that the EC has asked KPMG to investigate KPMG recommends that APNIC should adopt a continuous membership fee model (i.e. Option A2 or B) until 2011 as these options: – Meet all key principles that the EC requires a future membership fee structure to comply with; and – Provide the greatest degree of fairness as they are ultimately user-pay systems – some very small members might even be paying less under this fee structure than they are currently contributing to APNIC. • Options A2 and B are largely similar with the exception that under Option B NIRs pay a multiple of the ordinary fees paid by APNIC members. While Option B results in a better projected financial position for APNIC, the adoption of the model would ultimately be dependent on whether the EC would consider a model under which NIRs pay a greater fee than direct APNIC members.
• Impact of introduction of 3 new NIRs	• Our findings suggest that the establishment of NIRs in Australia, Hong Kong and India would broadly have a negative impact on the projected financial situation of APNIC unless the fees of NIRs are increased to 15 times the fees contributed by ordinary APNIC members.

Overall recommendation:

Options A2 and B are very similar in nature and as such provide largely the same benefits / results. However, overall KPMG prefers Option B over Option A2 simply because it would result in a slightly better financial position for APNIC. Should the EC prefer not to charge NIRs different fees compared to other APNIC members then Option A2 will be the most appropriate option for APNIC. The shortfall / surplus and cash reserve levels under both of these options (A2 and B) will ultimately be dependent on the starting fee level and bit factor applied to the membership fee structure. For example, this report highlights that should the EC consider increasing the start value of fees to $2,450 (for a /24) then APNIC would meet or almost meet its cash reserve target by 2013 whereas smaller increases would improve APNIC's financial position but would not allow to achieve the cash reserve target. KPMG is of the view that the introduction of 3 additional NIRs would generally negatively impact on the financial position of APNIC unless NIRs are charged significantly higher fees (approximately 15 times) when compared to ordinary APNIC members.

Recommended Approach

- KPMG has now completed Stage 2 of the APNIC membership fee study with KPMG's key findings and recommendations are presented in this report. It should be noted that this report should be read in conjunction with previous reports presented by KPMG during Stages 1 and 2.
- We recommend that the EC consider the following key steps going forward. The EC should:
  1. Review the key findings and recommendations in this report
  2. Eliminate options that it deems inappropriate
  3. Select its preferred option
  4. Consider engaging KPMG to refine the preferred option (e.g. determination of exact parameters of future fee structure such as start values and bit factors)
     - This analysis would need to commence in January and should be completed prior to and presented at the EC meeting in Manila in February
  5. Depending on the adopted fee structure (and underlying parameters), the EC should consider engaging KPMG to determine an appropriate IPv6 fee structure post 2011