APNIC EC Meeting Minutes

Face-to-Face meeting, Chiang Mai, Thailand

Monday, 9 September 2019, 14:05 – 19:00 (UTC +7)

Meeting started at 14:05 (UTC +7), Monday, 9 September 2019

Present
>Benyamin Naibaho
>Gaurab Raj Upadhaya, Chair
>Kam Sze Yeung
>Kenny Huang, Treasurer
>Paul Wilson, Director General
>Rajesh Chharia, Secretary
>Yoshinobu Matsuzaki
>Yuedong Zhang
>
>Connie Chan, Senior Executive Assistant (minutes)
>Craig Ng, General Counsel
>Richard Brown, Business Director
>Sanjaya, Deputy Director General

Apologies
>Nil

Agenda
1. Opening of meeting and declaration of quorum
2. Agenda bashing
3. Declaration of interests
4. Review of minutes of last meeting and record of circular resolutions passed since the last meeting
5. Matters arising from the last meeting
6. Chair update
7. WH&S update
8. Financial reports and budget discussion
9. APNIC conference location
10. APNIC Secretariat report
11. APNIC Foundation update
12. NRO NC election procedures
13. EC election system
14. Any other business
15. Next EC meeting

Minutes

1. Opening of meeting and declaration of quorum

The Chair of the Executive Council welcomed all attendees to the meeting.

Kenny Huang was appointed as the Chair of the Meeting. He declared the meeting open at 14:05 (UTC +7) on Monday, 9 September 2019, and noted that a quorum was present.

2. Agenda bashing

The Chair called for comments on the agenda. There were no changes to the agenda.

3. Declaration of interests

The Chair asked the EC members to review the Register of Interests (attached), declare any potential conflicts of interests, and for any such declaration to be recorded in the minutes.

All EC members present confirmed that their entries in the Register of Interests are complete and correct. No other declarations of interest were noted.

4. Review of minutes of the last meeting and record of circular resolutions passed since the last meeting

The following circular resolutions (that require the agreement of all EC members who are entitled to vote on the resolution) were passed by the EC during the period between the last EC meeting and this meeting and are recorded in these minutes for completeness.

Resolution 2019-20: The EC resolved to adopt the minutes of the EC meeting of 3 and 5 June 2019.

Resolution 2019-21: The EC resolved that: (a) Professor Jun Murai (Japan) be appointed as a director of APNIC Foundation Limited, subject to Professor Murai first consenting and agreeing to be so appointed; and (b) the Director-General be authorized to sign any document or resolution on behalf of APNIC Pty Ltd, as the sole member of APNIC Foundation Limited, to give effect to this resolution.

5. Matters arising from the last meeting

The following matters were completed:

Action item 2019-02: The Secretariat to update the Register of Interests [completed]

Action item 2019-04: The Secretariat to report the net operational income and investment income separately in future financial reports. [Completed]

[Confidential material redacted]

6. Chair update

The EC Chair provided an update on the EC travel expenses. He noted that there has been a high level of travel activity and the EC travel budget is nearly spent. He reminded the EC to reconfirm their travel plans and update the travel planner accordingly. The Secretariat will do further projections and monitor the travel budget closely.

The EC Chair briefed the EC on the arrangements made for the joint board meeting with the RIPE NCC Executive Board that is scheduled to take place on Friday, 13 September 2019 in Chiang Mai. He advised that APNIC and RIPE NCC boards have engaged Glenn Price to facilitate the joint board meeting in a structured way and to help the group engage in some quality strategic discussions. The EC discussed several potential topics for the joint meeting.

7. WH&S update

Kam Sze Yeung spoke to the Workplace Health and Safety quarterly update. There was no major issue to report since the last meeting.

The EC are reminded to install the International SOS app, and to check-in using the app.

8. Financial reports and budget discussion

Richard Brown spoke to the financial report presentation (attached).

The EC considered the monthly financial report and the investment report for July 2019 (attached). The EC noted that APNIC is solvent and able to meet all current debts.

The July financial report highlights an operating surplus of AUD 534K to date, with both revenue and expenses tracking very close to the budget forecast. At the end of July 2019, APNIC had a total of 7,536 Members serving 53 economies.

Richard Brown presented a high-level overview of the 2020 and 2021 budget and activity plans. The EC discussed the fee schedule review objectives at length and considered various fee structure variables and scenarios. The EC noted that APNIC could consider adjusting the membership fees on a more regular basis to avoid big fee changes. To ensure APNIC is setting fees that are transparent and predictable, the current review process will feed into a longer-term strategy on the objectives for future fee reviews and reflect the organization's commitment to achieving the current target of 18 months capital reserve for the long-term financial stability of the organization.

The EC has instructed the Secretariat to provide a more detailed version of the fee review proposal that will be submitted to the EC for further discussion and approval at the next EC meeting, with changes to the fees structure to be implemented by 2021.

9. APNIC conference location

Tony Smith and Blandine Cousin joined the meeting for this agenda item.

Tony Smith presented the APNIC 50 update and site visit report. Negotiations with the hotels are in progress. The venues will be announced as soon as the contracts are signed.

10. APNIC Secretariat report

The DG spoke to the AMM presentation (attached). The full Secretariat report is available on the EC wiki (attached).

From the 2018 APNIC Survey, the Members asked APNIC to reclaim unused IPv4 address space. The EC has noted the importance of maximizing utilization of address

space and has asked the Secretariat to investigate the possible reclamation of unused IPv4 addresses. The EC will make a policy statement about this at the AMM.

There was a brief discussion on the Service Partners trial. There was a suggestion to add more organizations to the trial, noting this would be something for the EC to consider at the next meeting.

The DG then spoke to the HR report.

The EC considered the draft AMM agenda for APNIC 48 (attached).

> **Resolution 2019-22: The EC resolved to approve the draft agenda for the APNIC Member Meeting of 12 September 2019.**

Motion proposed by Rajesh Chharia; seconded by Paul Wilson. Passed unanimously.

The EC had a brief discussion of the five policy proposals (attached) that will be discussed at the Policy SIG.

11. APNIC Foundation update

Duncan Macintosh joined the meeting for this agenda item.

Duncan Macintosh spoke to the Foundation update presentation (attached).

The EC discussed two prospective board members of the APNIC Foundation and directed Duncan Macintosh to conduct full due diligence on the two candidates for EC consideration at the next EC meeting.

12. NRO NC election procedures

The DG spoke to the election procedures for the conduct of the APNIC 48 NRO NC election (attached).

> **Resolution 2019-23: The EC resolved to appoint Dr Bhumindr Butr-Indr as Election Chair, Mr George Kuo and Ms Connie Chan of the APNIC Secretariat as Election Officers, and Mr Wita Laksono and Mr Zen Ng as Election Tellers, for the APNIC 48 NRO NC election.**

Motion proposed by Gaurab Raj Upadhaya; seconded by Kenny Huang. Passed unanimously.

13. EC election system

Sanjaya demonstrated the new voting system to the EC. The EC participated in the test election during the EC meeting.

[Confidential material redacted]

14. Any other business

[Confidential material redacted]

15. Next EC meeting

Kenny Huang then handed the Chair duties back to the EC Chair. From this point, Gaurab Raj Upadhaya chaired the meeting.

The next EC meeting is scheduled for 3 to 4 December 2019 in Taipei, held in conjunction with TWNIC OPM and TWNOG (5 - 6 December 2019).

The Chair informed that he had appointed Kam Sze Yeung as the Chair of the next EC meeting in Taipei, and Rajesh Chharia as the Chair of the APNIC 49/APRICOT 2020 meeting.

Meeting closed at 19:00 (UTC +7), Monday, 9 September 2019.

Attachments:

A. **Register of interest**
B. **July 2019 financial report presentation and report**
C. **July 2019 investment report**
D. **[Confidential material redacted]**
E. **Secretariat report and AMM presentation**
F. **[Confidential material redacted]**
G. **APNIC 48 AMM draft agenda**
H. **APNIC 48 policy proposal summary**
I. **APNIC Foundation update presentation**
J. **NRO NC election procedures**

Agenda Item 3
Declaration of Interests

APNIC EC Register of Interests

Declaration of interests of EC members

his register records the interests of EC members, which may conflict with the EC members' duties to APNIC. This register is accurate as at **21 June 2019**.

Gaurab Raj Upadhaya declared that he currently holds the following positions:

- Employee of Amazon Web Services (AWS/Amazon) as the Principal for Infrastructure/IP Strategy Development
- Founder of the Nepal Research and Education Network (NREN)
- Chairman of Nepal Internet Exchange (NPIX)
- Standing member of the Program Committee of APRICOT, SANOG, and Global Peering Forum

Kam Sze Yeung declared that he currently holds the following positions:

- Member of the HKNOG Program Committee
- Employee of Akamai Technologies, Inc
- Member of the Working Group of Peering Asia

Kenny Huang declared that he currently holds the following positions:

- CEO of TWNIC
- Board of Director, ISOC Taiwan Chapter
- Member of the Advisory Council of DotAsia Organization

Rajesh Chharia declared that he currently holds the following positions:

- President of the Internet Service Providers Association of India (ISPAI)
- Director of the National Internet Exchange of India (NIXI)
- CEO of CJ Online Pvt. Ltd
- Director of Chandra Industrial Company Private Limited
- Founding member of INNOG
- Member of the Internet Governance Forum (IGF) Multistakeholder Advisory Group (MAG)

Benyamin Parulian Naibaho declared that he currently holds the following positions:

- President Director of PT. Cyber Network Indonesia (ISP, NAP, Data Center and VPN Provider)
- President Director oaf PT. Platinum Network Indonesia (ISP)
- Chief of Data Center and Indonesia Internet Exchange (IIX) - APJII (Indonesia ISP Association)
- MAG (Multistakeholder Advisory Group) of ID-IGF (Indonesia Internet Government Forum)
- Treasury of APJATEL (Indonesia Telecommunication Network Provider Association)

Yoshinobu Matsuzaki declared that he currently holds the following positions:

- Employee of Internet Initiative Japan Inc. (IIJ) as a Senior Engineer
- Board of Director of JPNIC
- Board of Director of APIA
- Member of JANOG Committee
- Technical Advisor of JPCERT/CC
- Contact person at IIJ Europe (RIPE member) for RIPE

Yuedong Zhang declared that he currently holds the following position:

- Employee of CNNIC as Assistant Director, under the Ministry of the Cyberspace Administration of China

Paul Wilson declared no conflict of interests.

Agenda Item 8
Financial reports

Monthly Financial Report

(in AUD)

July 2019

APNIC

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1   Executive Summary

This report provides financial status up to July 2019, compared with the 2019 budget provisions, and actuals for same period last year. Forecast figures have been derived from a detailed review of the expected revenues, committed and planned expenditure for the remainder of 2019. It shows a year to date surplus of $534k before financial assets revaluation. The strong recovery in domestic and international markets since the beginning of 2019 has seen the value of APNIC's investment portfolio increase by $2,162k.

The forecast surplus for 2019 is forecast to be lower than the approved budget by around $102k, whilst revenue remains in line with Budget, expenses are tracking above budget as explained below.

Revenues:

- **Membership fees and Sign-Up fees**: Membership growth at the start of 2019 is tracking as anticipated with overall income higher than the budget estimate.

  New member growth up to the end of July was 479 and 11 accounts were reactivated, which is in line with budget assumptions. There were 116 closures over the period, well below budget estimate of 224. Although overall Membership fees income is higher than budget, income from **Sign-Up fees** is slightly below budget, reflecting an increase in new members from LDC's which make up 34.2% of new members compared to the budget assumption of 30%.

- **Investment income:** The APNIC investment portfolio continued to perform well, +1.37% for the month of July, as AUD bonds rallied, and the RBA delivered a rate cut. Global equities ex-Australia rose 2.39% in AUD terms, with gain across all major share markets in July. Australian equities also rose 2.94% over the month.

  Since inception, the portfolio has returned 6.02% (after fees) against the benchmark (CPI +2.5%) of 4.43%.

- **Sundry Income –** Includes Meeting and Training/Workshop Registrations, Sponsorship, and Foundation receipts.
    - Sponsorship fees for the APNIC48 conference in September will be significantly higher than the budget.
    - While training and workshop registration income is tracking slightly higher than the budget, Foundation receipts and Training Receipts (Consultancy/Cost Recovery) are tracking below budget. Income in these areas, particularly Foundation receipts will increase as the year progresses.

Expenses:

- **Computer expenses** will be above budget at the end of 2019. Costs for additional Salesforce licenses, the new HRIS and Payroll System, and VMware licensing are contributing to this variance, along with costs for Academy virtual labs and Research cloud computing costs.
- **Membership fees** are tracking above budget, this variance is a result to costs related to European Trade Mark applications that were not included in the budget.
- **Professional fees** are forecast to be over the budget provision. The primary drivers for these variances are the engagement of consultants to guide APNIC through the development of the 2019-2023 Strategic Plan, support for the implementation of Product, and the development of the Internet Directory.

- **Recruitment expenses** are tracking below the original budget, and overall costs are expected to be less than budget at the end of the year.
- **Salaries and personnel expenses –** These expenses are challenging to accurately forecast due to staff movements, vacant roles, the timing of recruitment, and the timing of staff leave. At this stage it is expected that the final 2019 expenses will be close to, or slightly below the budget estimate.
- **Travel expenses** are tracking above budget mainly caused by the timing of travel expenses, with a significant amount of global travel undertaken in the first half of 2019. It is anticipated that travel expenses overall will be above budget by around 4% by the end of 2019.

Capital Expenditure on equipment and software is tracking below budget. CAPEX is expected to be around 12% below budget by the end of the year.

Expenses by Activity Code: Global Cooperation activity is tracking significantly above budget, this variance is primarily caused by travel costs to meetings outside the APNIC region such as ICANN, IETF, RIPE, AFRINIC, ARIN and LACNIC meetings. It is expected that the costs for this activity will align more closely with budget by the end of the year. Costs for google ads (by APNIC Labs) are also tracking above budget provisions.

2   Statement of Financial Position

Amount (AUD)	31/07/2019	Year End 2018	% Change
CURRENT ASSETS			
Cash/ Term deposits	8,335,990	8,456,000	*-1%*
Receivables	1,894,409	984,890	*92%*
Others	1,000,883	678,567	*47%*
TOTAL CURRENT ASSETS	**11,231,283**	**10,119,457**	***11%***
NON-CURRENT ASSETS			
Other financial assets	27,524,750	24,861,226	*11%*
Property, plant and equipment	7,393,491	7,472,353	*-1%*
Deferred tax assets/ liabilities	286,537	286,537	*0%*
TOTAL NON-CURRENT ASSETS	**35,204,779**	**32,620,117**	***8%***
TOTAL ASSETS	**46,436,062**	**42,739,574**	***9%***
CURRENT LIABILITIES			
Payables	953,438	1,241,761	*-23%*
Provisions	1,863,862	1,743,961	*7%*
Unearned revenue	11,312,805	10,227,970	***11%***
TOTAL CURRENT LIABILITES	**14,130,104**	**13,213,692**	***7%***
NON - CURRENT LIABILITIES			
Deferred Tax Liabilities	450,313	450,313	*0%*
Total Provisions	338,726	254,584	*33%*
TOTAL NON-CURRENT LIABILITIES	**789,039**	**704,897**	***12%***
TOTAL LIABILITIES	**14,919,143**	**13,918,589**	***7%***
NET ASSETS	**31,516,919**	**28,820,985**	***9%***
EQUITY			
Share capital	1	1	*0%*
Retained earnings	28,820,984	27,708,012	*4%*
Net Income	2,695,934	1,112,972	*142%*
TOTAL EQUITY	**31,516,919**	**28,820,985**	***9%***

Table 1. Statement of Financial Position

3   Statement of Income

Amount (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Membership fees	12,195,642	11,673,226	4%	20,959,575	21,082,320	1%
Non-members fees	150,387	144,969	4%	258,112	257,936	-0%
Reactivation fees	10,200	14,000	-27%	25,000	15,000	-40%
Sign-Up fees	197,250	198,500	-1%	351,000	336,750	-4%
Transfer fees	92,859	100,060	-7%	185,000	157,284	-15%
Sundry income	152,685	124,594	23%	345,892	402,329	16%
Operating Revenue	**12,799,023**	**12,255,349**	**4%**	**22,124,579**	**22,251,619**	**1%**
Investment income	692,683	567,480	22%	1,049,000	1,032,353	-2%
TOTAL REVENUE	**13,491,706**	**12,822,829**	**5%**	**23,173,579**	**23,283,972**	**0%**
Bank service fees	113,292	108,832	4%	203,000	196,280	-3%
Communication expenses	306,006	309,671	-1%	599,524	575,032	-4%
Computer expenses	628,847	422,088	49%	1,050,390	1,105,222	5%
Contribution to APNIC Foundation	428,751	385,818	11%	746,208	719,671	-4%
Depreciation expense	499,159	497,026	0%	841,892	854,931	2%
Doubtful debt expenses	13,076	4,611	184%	25,000	23,495	-6%
ICANN contract fee	153,642	144,865	6%	260,000	263,386	1%
Insurance expense	125,979	113,800	11%	192,500	206,610	7%
Meeting and training expenses	136,065	110,970	23%	466,550	457,813	-2%
Membership fees	41,310	29,701	39%	54,218	62,539	15%
Office operating expenses	210,634	188,053	12%	363,235	352,927	-3%
Postage & delivery	12,307	15,595	-21%	48,500	35,544	-27%
Printing & photocopy	20,000	16,796	19%	39,500	38,800	-2%
Professional fees	956,698	667,532	43%	1,673,800	1,874,720	12%
Recruitment expense	63,111	146,870	-57%	120,000	93,111	-22%
Salaries and personnel expenses	7,234,296	6,454,321	12%	12,993,111	12,993,111	
Sponsorship and Publicity expenses	312,016	285,544	9%	828,350	788,431	-5%
Staff training/ Conference expenses	185,723	80,405	131%	301,500	345,098	14%
Translation expenses	4,162	5,385	-23%	22,500	8,785	-61%
Travel expenses	1,512,587	1,094,074	38%	2,099,000	2,185,941	4%
TOTAL EXPENSES	**12,957,660**	**11,081,955**	**17%**	**22,928,778**	**23,181,447**	**1%**
Surplus before financial assets revaluation	**534,046**	**1,740,874**	**-69%**	**244,801**	**102,525**	**-58%**
Fair value surplus on financial assets	2,161,888		-		2,161,888	-
SURPLUS	**2,695,934**	**1,740,874**	**55%**	**244,801**	**2,264,413**	**825%**

Table 2. Statement of Income

4   Capital Expenditure

CAPITAL (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Equipment & Software	336,787	269,558	25%	759,411	673,339	-11%
Office Furniture & Fittings	87,357	27,918	213%	115,000	97,417	-15%
Total - Capital Expenditure	**424,144**	**297,476**	**43%**	**874,411**	**770,756**	**-12%**

Table 3. Capital Expenditure by Category

5   Activity Reporting

5.1   Expenses by Activity Code

EXPENSES (AUD)	YTD Actual Jul 2019	YTD Budget Jul 2019	Variance $	Variance %
Customer Service	2,346,348	2,252,048	94,300	4%
Member Training	1,000,432	1,150,486	-150,054	-13%
Registration Services	1,069,803	1,099,623	-29,820	-3%
Technical Infrastructure	2,005,143	2,049,873	-44,730	-2%
Total - Serving Members	**6,421,725**	**6,552,030**	**-130,305**	**-2%**
APNIC Conferences	726,439	690,345	36,094	5%
APNIC Foundation	465,855	446,538	19,317	4%
Community Engagement	584,149	573,139	11,010	2%
Regional Technical Development	1,185,275	1,206,973	-21,698	-2%
Total - Regional Development	**2,961,717**	**2,916,995**	**44,722**	**2%**
Global Research	520,863	423,823	97,040	23%
Global Technical Community	723,075	636,390	86,685	14%
Inter-governmental Outreach	151,547	179,656	-28,109	-16%
Total - Global Cooperation	**1,395,485**	**1,239,869**	**155,616**	**13%**
Facilities	388,014	373,399	14,615	4%
Finance & Administration	738,296	829,566	-91,270	-11%
Human Resource Management	603,208	601,688	1,520	0%
Legal & Governance	449,216	450,517	-1,301	0%
Total - Corporate	**2,178,733**	**2,255,170**	**-76,437**	**-3%**
Total - Expenses	**12,957,660**	**12,964,064**	**-6,404**	**0%**

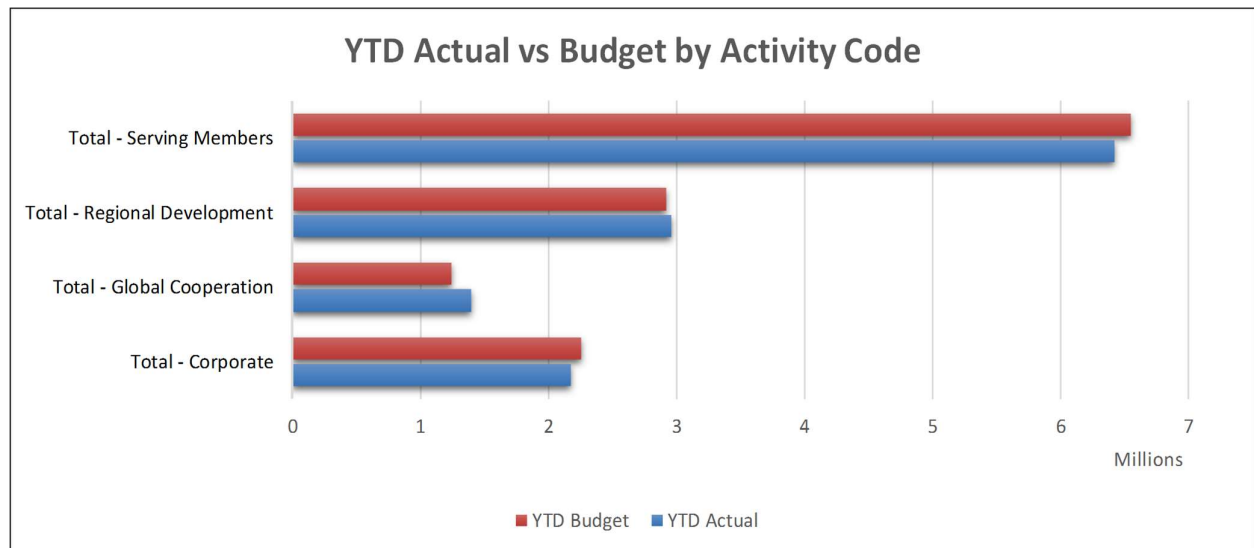**Table 4. Expense by Activity Code**

Figure 1. YTD Actual vs. Budget by Activity

5.2   Capital Expenditure by Activity Code

CAPITAL EXPENSES (AUD)	YTD Actual Jul 2019	YTD Budget Jul 2019	Variance $	Variance %
Customer Service	23,837	21,175	2,662	13%
Member Training		30,919	-30,919	-100%
Technical Infrastructure	285,771	229,908	55,863	24%
Total - Serving Members	**309,608**	**282,002**	**27,606**	**10%**
APNIC Conferences		1,750	-1,750	-100%
APNIC Foundation	2,714		2,714	
Regional Technical Development	2,940	116,669	-113,729	-97%
Total - Regional Development	**5,654**	**118,419**	**-112,765**	**-95%**
Global Research	9,985	35,000	-25,015	-71%
Total - Global Cooperation	**9,985**	**35,000**	**-25,015**	**-71%**
Facilities	87,357	67,081	20,276	30%
Finance & Administration	8,733	5,544	3,189	58%
Human Resource Management	2,807	2,044	763	37%
Total - Corporate	**98,897**	**74,669**	**24,228**	**32%**
Total - Capital Expenses	**424,144**	**510,090**	**-85,946**	**-17%**

Table 5. Capital Expenditure by Activity Code

6 APNIC Reserve

6.1 Cash Flow Statement

Amount (AUD)	YTD Jul 2019
Operating Activities	
Net Income	**2,695,934**
Adjustments to Profit/(Loss)	
Accounts Receivable	-946,615
Other Current Asset	-285,220
Accounts Payable	36,421
Sales Tax Payable	-14,577
Other Current Liability	894,568
Total Adjustments to Profit/(Loss)	**-315,423**
Total Operating Activities	**2,380,511**
Investing Activities	
Fixed Asset	78,862
Other Asset	-2,663,524
Total Investing Activities	**-2,584,662**
Financing Activities	
Long Term Liability	84,142
Equity	0
Total Financing Activities	**84,142**
Net Change in Cash for Period	**-120,010**
Cash at Beginning of Period	8,456,000
Cash at End of Period	**8,335,990**

Table 6. Cash Flow Statement

6.2 Capital Reserve
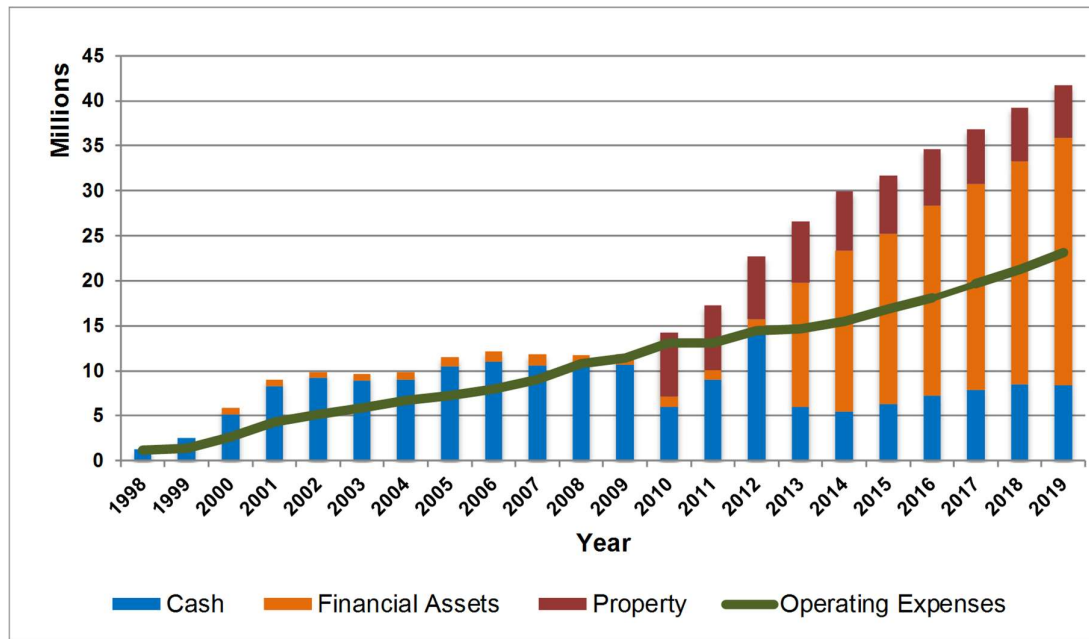
Figure 2. APNIC Reserves

6.3 APNIC's Equity and Reserves

By comparing the Total Equity (including retained earnings and unrealised capital gains), the Daily Operating Costs, the number of month's coverage of operational expenses is set out below:

	YTD 2019	2018	2017	2016	2015
Total Equity (AUD)	$31,516,919	$28,820,985	$27,708,013	$25,647,507	$23,319,460
Forecast/ Actual Daily Operating Expenses (AUD)	$63,511	$58,122	$53,909	$49,430	$46,077
Number of Months of expenses covered by Equity	16.31	16.25	16.90	17.01	16.64

Table 7. Equity and Reserves

7   Membership

7.1   Membership by Category

Membership	Total Dec 2018	YTD New Jul 2019	YTD Reactivate Jul 2019	YTD Closed Jul 2019	YTD Size Change Jul 2019	Total Jul 2019	% Total
Extra Large	24	0	0	0	0	24	0%
Very Large	44	0	0	0	2	46	1%
Large	143	1	0	-2	1	143	2%
Medium	483	3	0	-8	10	488	7%
Small	3,376	149	7	-43	77	3,566	44%
Very Small	2,967	314	4	-50	-104	3,131	43%
Associate	125	12	0	-13	14	138	2%
TOTAL	**7,162**	**479**	**11**	**-116**	**0**	**7,536**	**100%**

Table 8. Membership by Category

7.2   Membership Growth
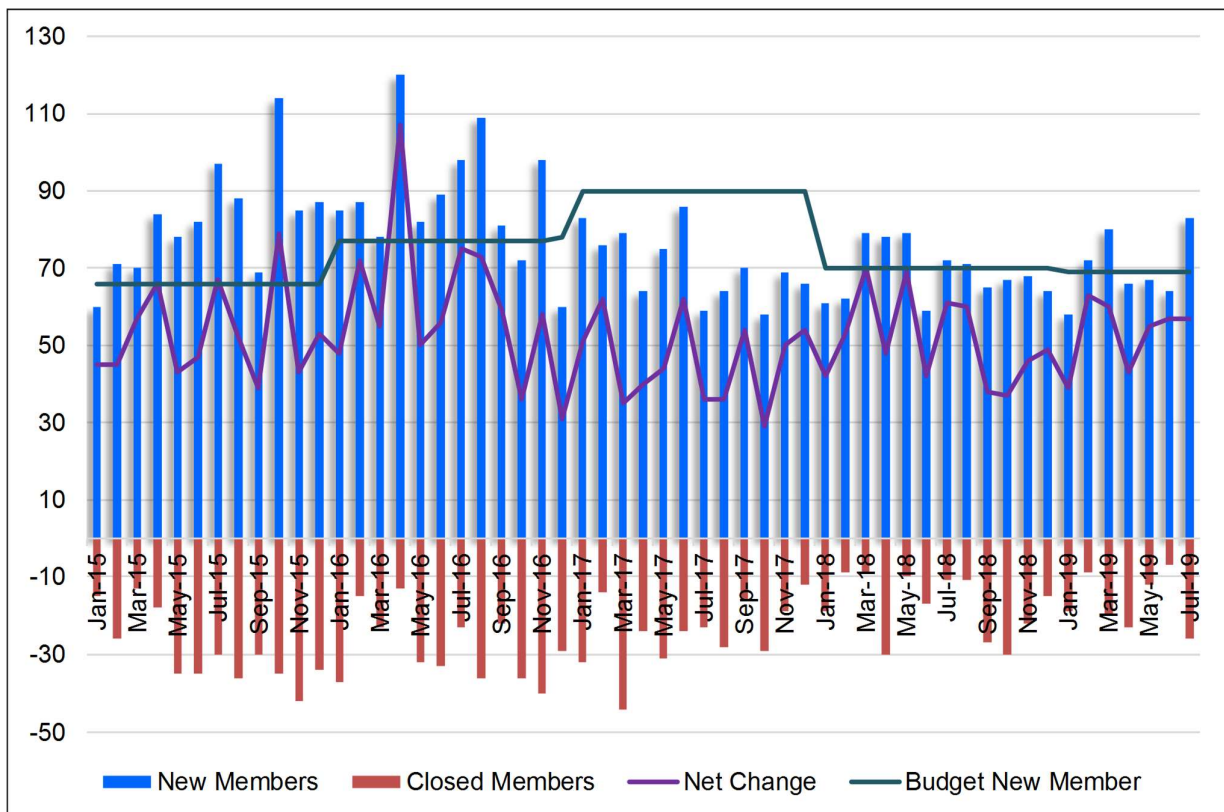
Figure 3. Membership Growth Analysis

7.3   Year-to-Date Membership Movement by Economy
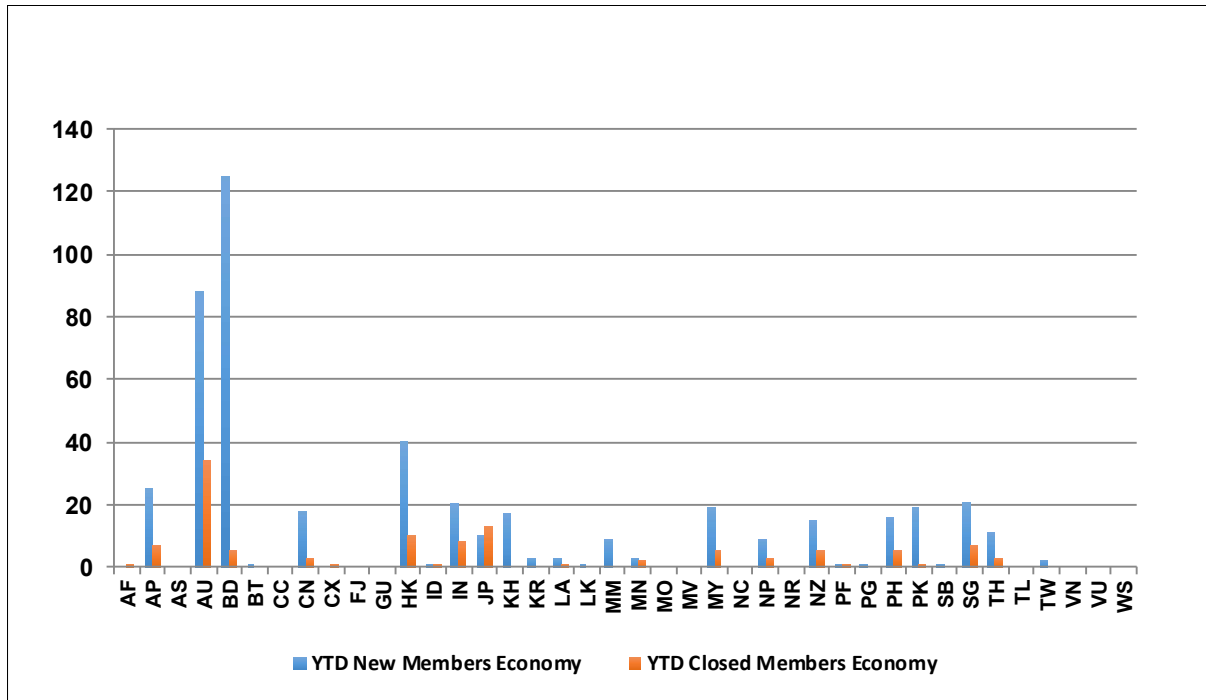
Figure 4. New and Closed Members Analysis

7.4   Membership Closures by Year Joined

Year Joined	Market transfer	Membership transfer to NIR	Merger & Acquisition	Non Payment [Uncontactable]	Non Payment [Contactable]	Voluntary member closure	Grand Total
1999						1	1
2000	1		1				2
2002	1						1
2003		1		1			2
2004			1				1
2005				1		1	2
2006			4			1	5
2007			1	1			2
2008						1	1
2009		1			1	2	4
2010			2	1		4	7
2011		1	2	2		1	6
2012			4	1	1	2	8
2013	2		4	2	1	3	12
2014			5	1	1	2	9
2015				6		2	8
2016	1			4	4	4	13
2017			1	10	4	4	19
2018			1	4	1	7	13
Grand Total	**5**	**3**	**26**	**34**	**13**	**35**	**116**

Table 9. Membership Closure by Year Joined

7.5   Membership Closures by Economy

Economy	Market transfer	Membership transfer to NIR	Merger & Acquisition	Non Payment [Uncontactable]	Non Payment [Contactable]	Voluntary member closure	Grand Total	IPV4 Resources Reclaimed (/24's)	IPV6 Resources Reclaimed (/32's)	ASN Reclaimed
AF				1			**1**	2		1
AP			1	3	1	2	**7**	10	1	
AU	1		11	4	6	12	**34**	133	7	12
BD			1	2	2		**5**	8	1	4
CN	2			1			**3**	12	2	3
CX				1			**1**			
HK	2			2	1	5	**10**	18	2	6
ID		1					**1**			
IN		1	2	3		2	**8**	7	1	4
JP		1	4	6	1	1	**13**	20		
LA						1	**1**	1		1
MN				1		1	**2**	2	0	2
MY			2	2		1	**5**	42	1	3
NP			1	1		1	**3**	8	2	2
NZ			1			4	**5**	2	1	3
PF			1				**1**			
PH				3		2	**5**	15	0	5
PK				1			**1**	1		1
SG				3	2	2	**7**	13	2	1
TH			2			1	**3**	8		1
Grand Total	**5**	**3**	**26**	**34**	**13**	**35**	**116**	**302**	**20**	**49**

Table 10. Membership Closure by Economy

Finance Presentation APNIC EC Meeting

Chiang Mai, Thailand

9 September 2019

APNIC

Financial Performance

Year to date July 2019

APNIC

Financial Highlights YTD July 2019

- Equity Position increased by 9% to date in 2019 ✔

- Revenue tracking $137k above budget ✔

- Expenses tracking $6k below budget ✔

- Operating surplus forecast at $103k, $142k below budget

- Net change in cash minus $120K to date in 2019

- Activity expenditure in line with budget profile ✔

- New Member Growth close to budget assumptions ✔

APNIC

Statement of Financial Position

	31/07/2019	Year End 2018	Change	% Change
ASSETS				
Total Current Assets	11,231,283	10,119,457	*1,111,825*	*11%*
Total Non-Current Assets	35,204,779	32,620,117	*2,584,662*	*8%*
TOTAL ASSETS	**46,436,062**	**42,739,574**	**3,696,488**	**9%**
LIABILITIES				
Total Current Liabilities	14,130,104	13,213,692	*916,412*	*7%*
Total Non-Current Liabilities	789,039	704,897	*84,142*	*12%*
TOTAL LIABILITIES	**14,919,143**	**13,918,589**	**1,000,554**	**7%**
NET ASSETS/ TOTAL EQUITY	**31,516,919**	**28,820,985**	**2,695,934**	**9%**

All amounts in AUD – Australian Dollars

Statement of Financial Position

Net Equity position has increased by 9% ($2,696k) to 31 July 2019

- Current Assets increased by 11% $1,112k
  - Decrease in cash by $120k
  - Membership renewals effect on receivables increased by $947k
  - Expenses incurred for NRO to be recovered increased by $219k
  - Prepayment of deferred expenses and taxes increased by $276k

- Non-Current Assets increased by 8% $2,585k
  - Reduction in Property & Equipment of $79k
  - **Investment portfolio increased by $2,664k**
    - $2,161k Capital Growth
    - $502k reinvested income

All amounts in AUD – Australian Dollars

Statement of Financial Position

- Current Liabilities increased by 7% $917k
    - Staff Leave Provisions increased by $120k
    - Accounts Payable decreased by $288k
    - Unearned Revenue increased by 1,085k
        - Prepaid Sponsorship increased by $107k
        - Members Prepaid fees increased by $978k

- Non-Current Liabilities increased by 12% $84k
    - Long Service Leave Provisions increased by $84k

All amounts in AUD – Australian Dollars

APNIC

Financial Stability Measure

	YTD 2019	2018	2017	2016	2015
Total Equity (AUD)	$31,516,919	$28,820,985	$27,708,013	$25,647,507	$23,319,460
Forecast/ Actual Daily Operating Expenses (AUD)	$63,511	$58,122	$53,909	$49,430	$46,077
Number of Months of expenses covered by Equity	16.31	16.25	16.90	17.01	16.64

Target of 18 Months
- Based on Budget expenses
- Expected to improve over the year

All amounts in AUD – Australian Dollars

APNIC Capital Reserve
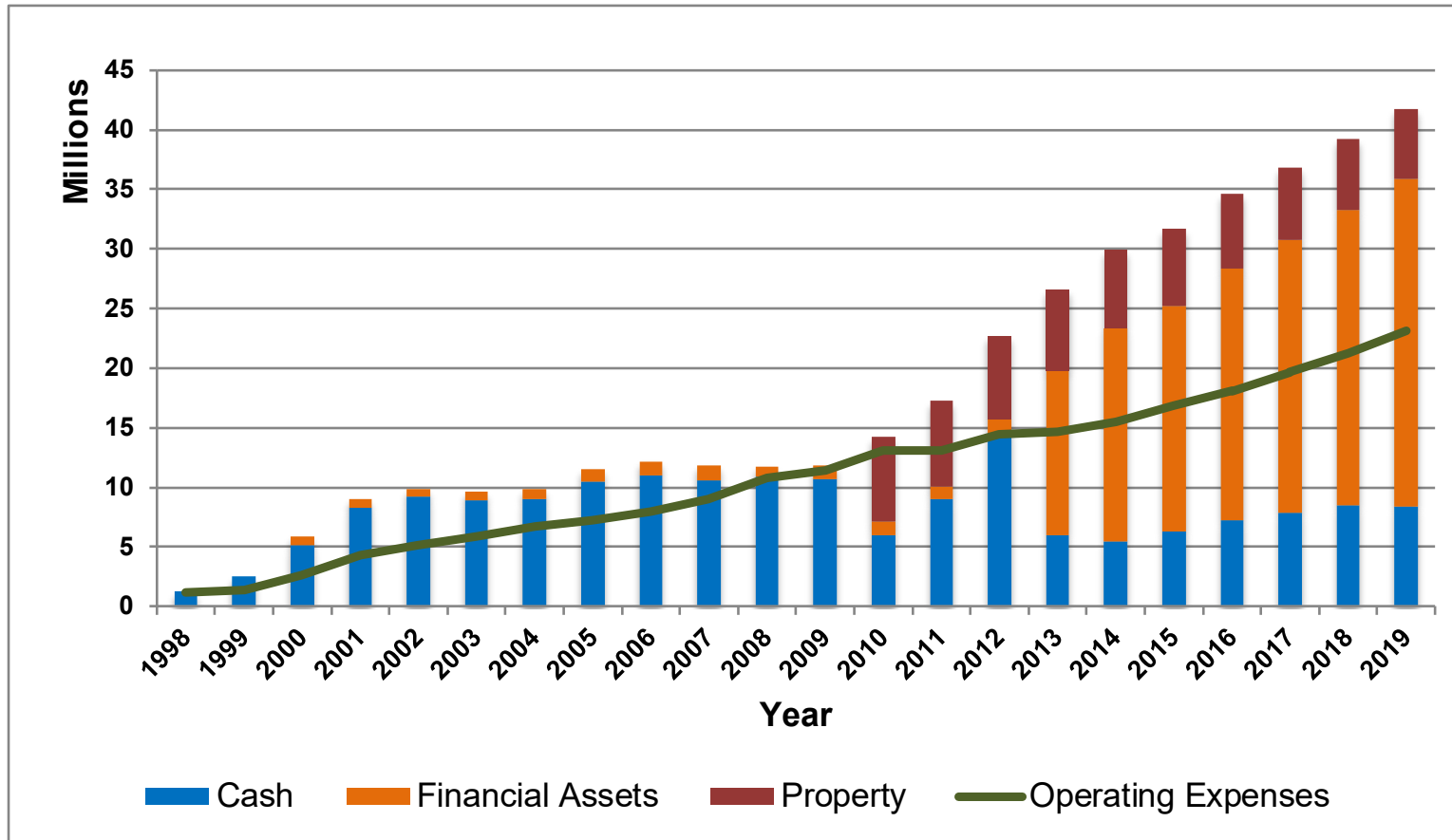
All amounts in AUD – Australian Dollars

Statement of Income

REVENUE and EXPENSES (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Total Revenue	13,491,706	12,822,829	5%	23,173,579	23,283,972	0%
Total Expenses	12,957,660	11,081,955	17%	22,928,778	23,181,447	1%
Surplus before financial assets revaluation	534,046	1,740,874	-69%	244,801	102,525	-58%
Fair value surplus on financial assets	2,161,888		-		2,161,888	-
SURPLUS	2,695,934	1,740,874	55%	244,801	2,264,413	825%

APNIC

Statement of Income – Revenue

REVENUE (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Membership fees	12,195,642	11,673,226	4%	20,959,575	21,082,320	1%
Non-members fees	150,387	144,969	4%	258,112	257,936	-0%
Reactivation fees	10,200	14,000	-27%	25,000	15,000	-40%
Sign-Up fees	197,250	198,500	-1%	351,000	336,750	-4%
Transfer fees	92,859	100,060	-7%	185,000	157,284	-15%
Sundry income	152,685	124,594	23%	345,892	402,329	16%
Operating Revenue	**12,799,023**	**12,255,349**	**4%**	**22,124,579**	**22,251,619**	**1%**
Investment income	692,683	567,480	22%	1,049,000	1,032,353	-2%
TOTAL REVENUE	**13,491,706**	**12,822,829**	**5%**	**23,173,579**	**23,283,972**	**0%**

All amounts in AUD – Australian Dollars

APNIC

Statement of Income – Revenue

Operating Revenue tracking $137k above budget

Fair value surplus on financial assets $2,162K

- Investment income $81k above budget

- Membership Fees $90k above budget
    - New Member growth continues below budget estimates
        - 479 Actual vs 483 Budget to 31 July
    - Offset by reduction in account closures
        - 116 Actual vs 224 Budget to 31 July
    - Impacting on Sign-Up fees $7.5k below budget
    - 11 Reactivations
    - Around 34.2% of new Members from LDC's compared to Budget 30%

- Transfers below budget by $15k

- Sundry income below budget by $72k
    - Training and workshop registration receipts
    - Sponsorship receipts for the APNIC conference
    - The provision of consulting services and Foundation support

Investment Fund Update

Market Value as at 31 July 2019

	Market Value
APNIC Portfolio	A$27,531,973

Performance as of 31 July 2019

APNIC Portfolio				
	Portfolio	Benchmark	Relative	CPI + 2.5%
Month	1.37%	1.35%	+0.02%	0.34%
3 Months	4.09%	4.32%	-0.23%	1.00%
Year To Date	10.66%	10.52%	+0.14%	2.37%
1 Year	10.49%	9.91%	+0.58%	4.27%
3 Years pa	5.52%	5.75%	-0.23%	4.33%
Since Inception pa	6.02%	6.17%	-0.15%	4.43%

* Performance is after fees but before franking

APNIC

Membership Tracking

Membership	Total Dec 2018	YTD New Jul 2019	YTD Reactivate Jul 2019	YTD Closed Jul 2019	YTD Size Change Jul 2019	Total Jul 2019	%Total
Extra Large	24	0	0	0	0	24	0%
Very Large	44	0	0	0	2	46	1%
Large	143	1	0	-2	1	143	2%
Medium	483	3	0	-8	10	488	7%
Small	3,376	149	7	-43	77	3,566	44%
Very Small	2,967	314	4	-50	-104	3,131	43%
Associate	125	12	0	-13	14	138	2%
TOTAL	**7,162**	**479**	**11**	**-116**	**0**	**7,536**	**100%**

Membership Growth

Membership Tracking – Closures by Economy

Economy	Market transfer	Membership transfer to NIR	Merger & Acquisition	Non Payment [Uncontactable]	Non Payment [Contactable]	Voluntary member closure	Grand Total	IPV4 Resources Reclaimed (/24's)	IPV6 Resources Reclaimed (/32's)	ASN Reclaimed
AF				1			1	2		1
AP			1	3	1	2	7	10	1	
AU	1		11	4	6	12	34	133	7	12
BD			1	2	2		5	8	1	4
CN	2			1			3	12	2	3
CX				1			1			
HK	2			2	1	5	10	18	2	6
ID		1					1			
IN		1	2	3		2	8	7	1	4
JP		1	4	6	1	1	13	20		
LA						1	1	1		1
MN				1		1	2	2	0	2
MY			2	2		1	5	42	1	3
NP			1	1		1	3	8	2	2
NZ			1			4	5	2	1	3
PF			1				1			
PH				3		2	5	15	0	5
PK				1			1	1		1
SG				3	2	2	7	13	2	1
TH			2			1	3	8		1
Grand Total	**5**	**3**	**26**	**34**	**13**	**35**	**116**	**302**	**20**	**49**

Membership Tracking – Closures by Year Joined

Year Joined	Market transfer	Membership transfer to NIR	Merger & Acquisition	Non Payment [Uncontactable]	Non Payment [Contactable]	Voluntary member closure	Grand Total
1999						1	**1**
2000	1		1				**2**
2002	1						**1**
2003		1		1			**2**
2004			1				**1**
2005				1		1	**2**
2006			4			1	**5**
2007			1	1			**2**
2008						1	**1**
2009		1			1	2	**4**
2010			2	1		4	**7**
2011		1	2	2		1	**6**
2012			4	1	1	2	**8**
2013	2		4	2	1	3	**12**
2014			5	1	1	2	**9**
2015				6		2	**8**
2016	1			4	4	4	**13**
2017			1	10	4	4	**19**
2018			1	4	1	7	**13**
Grand Total	**5**	**3**	**26**	**34**	**13**	**35**	**116**

Statement of Income - Expenses

Amount (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Bank service fees	113,292	108,832	4%	203,000	196,280	-3%
Communication expenses	306,006	309,671	-1%	599,524	575,032	-4%
Computer expenses	628,847	422,088	49%	1,050,390	1,105,222	5%
Contribution to APNIC Foundation	428,751	385,818	11%	746,208	719,671	-4%
Depreciation expense	499,159	497,026	0%	841,892	854,931	2%
Doubtful debt expenses	13,076	4,611	184%	25,000	23,495	-6%
ICANN contract fee	153,642	144,865	6%	260,000	263,386	1%
Insurance expense	125,979	113,800	11%	192,500	206,610	7%
Meeting and training expenses	136,065	110,970	23%	466,550	457,813	-2%
Membership fees	41,310	29,701	39%	54,218	62,539	15%
Office operating expenses	210,634	188,053	12%	363,235	352,927	-3%
Postage & delivery	12,307	15,595	-21%	48,500	35,544	-27%
Printing & photocopy	20,000	16,796	19%	39,500	38,800	-2%
Professional fees	956,698	667,532	43%	1,673,800	1,874,720	12%
Recruitment expense	63,111	146,870	-57%	120,000	93,111	-22%
Salaries and personnel expenses	7,234,296	6,454,321	12%	12,993,111	12,993,111	
Sponsorship and Publicity expenses	312,016	285,544	9%	828,350	788,431	-5%
Staff training/ Conference expenses	185,723	80,405	131%	301,500	345,098	14%
Translation expenses	4,162	5,385	-23%	22,500	8,785	-61%
Travel expenses	1,512,587	1,094,074	38%	2,099,000	2,185,941	4%
TOTAL EXPENSES	**12,957,660**	**11,081,955**	**17%**	**22,928,778**	**23,181,447**	**1%**

All amounts in AUD – Australian Dollars

APNIC

Statement of Income - Expenses

Expenses tracking $6k (0.1%) below budget

- **Salaries & Personnel expenses –** over budget by $10k
  - Resignations
  - Timing taken to recruit vacant positions
  - Timing of staff leave
  - Expected to be close to, or slightly below the budget estimate

- **Professional fees** above budget by $10k
  - Engagement of consultants to guide APNIC through the development of the 2019-2023 Strategic Plan
  - Product Management consultants to assist in the implementation of Product Management framework
  - Contractors to continue the development of the Internet Directory, which were not budgeted.
  - Forecast to be over budget by $201k

- **Recruitment expenses** tracking below the original budget by $7k, recent recruitment is less reliant on outside agencies. Overall costs are expected to be less than budget at the end of the year.

- **Travel expenses** are above budget by $143k at the end of July due to the timing of events and significant amount of global travel. It is forecast that travel will be above budget by 4% at the end of 2019

- **Computer expenses** continue to track higher than budget. The forecast shows it will be above budget at the end of 2019 by $55k
  - Additional Salesforce licenses
  - New HRIS, Payroll System, and VMware licensing
  - Academy virtual labs, and Research cloud computing costs will be higher than budget

Capital Expenditure

CAPITAL (AUD)	YTD Actual Jul 2019	YTD Actual Jul 2018	Variance %	Budget 2019	Forecast 2019	Budget Variance %
Equipment & Software	336,787	269,558	25%	759,411	673,339	-11%
Office Furniture & Fittings	87,357	27,918	213%	115,000	97,417	-15%
Total - Capital Expenditure	**424,144**	**297,476**	**43%**	**874,411**	**770,756**	**-12%**

Cash Flow YTD July 2019

Amount (AUD)	YTD Jul 2019
Operating Activities	
Net Income	**2,695,934**
Adjustments to Profit/(Loss)	
Accounts Receivable	-946,615
Other Current Asset	-285,220
Accounts Payable	36,421
Sales Tax Payable	-14,577
Other Current Liability	894,568
Total Adjustments to Profit/(Loss)	**-315,423**
Total Operating Activities	**2,380,511**
Investing Activities	
Fixed Asset	78,862
Other Asset	-2,663,524
Total Investing Activities	**-2,584,662**
Financing Activities	
Long Term Liability	84,142
Equity	0
Total Financing Activities	**84,142**
Net Change in Cash for Period	**-120,010**
Cash at Beginning of Period	8,456,000
Cash at End of Period	**8,335,990**

Expenses by Activity

YTD Actual vs Budget by Activity Code
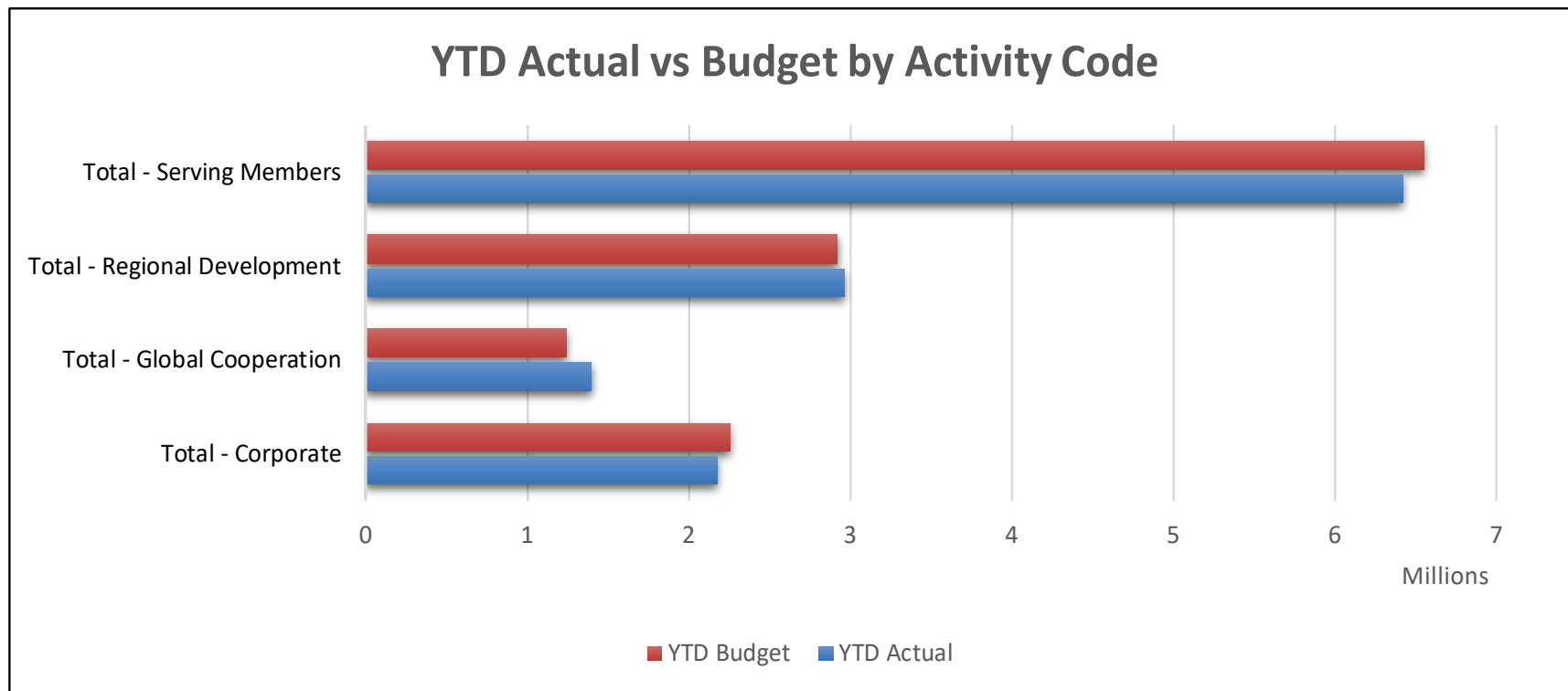
Expenses by Activity – YTD July

EXPENSES (AUD)	YTD Actual Jul 2019	YTD Budget Jul 2019	Variance $	Variance %
Customer Service	2,346,348	2,252,048	94,300	4%
Member Training	1,000,432	1,150,486	-150,054	-13%
Registration Services	1,069,803	1,099,623	-29,820	-3%
Technical Infrastructure	2,005,143	2,049,873	-44,730	-2%
Total - Serving Members	**6,421,725**	**6,552,030**	**-130,305**	**-2%**
APNIC Conferences	726,439	690,345	36,094	5%
APNIC Foundation	465,855	446,538	19,317	4%
Community Engagement	584,149	573,139	11,010	2%
Regional Technical Development	1,185,275	1,206,973	-21,698	-2%
Total - Regional Development	**2,961,717**	**2,916,995**	**44,722**	**2%**
Global Research	520,863	423,823	97,040	23%
Global Technical Community	723,075	636,390	86,685	14%
Inter-governmental Outreach	151,547	179,656	-28,109	-16%
Total - Global Cooperation	**1,395,485**	**1,239,869**	**155,616**	**13%**
Facilities	388,014	373,399	14,615	4%
Finance & Administration	738,296	829,566	-91,270	-11%
Human Resource Management	603,208	601,688	1,520	0%
Legal & Governance	449,216	450,517	-1,301	0%
Total - Corporate	**2,178,733**	**2,255,170**	**-76,437**	**-3%**
Total - Expenses	**12,957,660**	**12,964,064**	**-6,404**	**0%**

Questions?

CREDIT SUISSE

Investment Report 1.7.2019 – 31.7.2019

APNIC PTY LTD
Portfolio: 3000039-70

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CREDIT SUISSE AG

Level 31, Gateway	Phone	+612 8205 4888
1 Macquarie Place	Fax	+612 8205 4889
Sydney	ABN	17 061 700 712
NSW 2000	AFSL	226896
Australia		

Private Banking

Investment Report 1.7.2019 – 31.7.2019

| **Portfolio** | **3000039-70** |
| In the Name of | APNIC PTY LTD |

APNIC PTY LTD
PO BOX 3646
SOUTH BRISBANE, QLD 4101
AUSTRALIA

| Produced on | 2.8.2019 |
| Reporting Currency | AUD |

| Relationship Manager | Patrick Armitage |
| Phone | +61 2 8205 4451 |

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Scope of Analysis
as of 31.7.2019

Components	Portfolio	Asset Value in AUD	Discretionary Mandate	Opened	Closed	Performance Activation	Performance Deactivation
Investment related Positions							
AUD Portfolio	3000039-70	27,524,750	Yes	16.08.2013		31.12.2013	
Total Wealth		**27,524,750**					

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1. Overview

1.1. Asset Allocation

Asset Allocation by Asset Category
Period 1.7.2019 - 31.7.2019

	Beginning Market Value in AUD	Change	Ending Market Value in AUD	Ending Market Value Prop.
■ Liquidity & Similar Investments	887,713	304,510	1,192,223	4.33%
■ Fixed Income & Similar Investments	15,215,000	-28,438	15,186,562	55.17%
■ Equities & Similar Investments	6,152,209	72,519	6,224,728	22.62%
■ Alternative Investments, Commodities & Real Estate	4,904,277	16,961	4,921,238	17.88%
Total Investments	**27,159,199**		**27,524,750**	**100.00%**
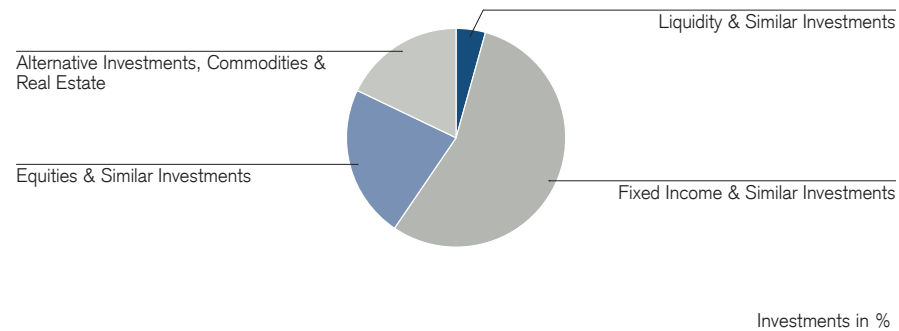
Asset Allocation by Currency
Period 1.7.2019 - 31.7.2019

	Beginning Market Value in AUD	Change	Ending Market Value in AUD	Ending Market Value Prop.
■ AUD - Australian Dollar	23,912,369	235,308	24,147,677	87.73%
■ USD - US Dollar	2,522,885	129,087	2,651,972	9.63%
■ EUR - Euro	461,983	300	462,284	1.68%
■ JPY - Japan Yen	187,341	746	188,087	0.68%
■ CHF - Swiss Franc	74,595	111	74,706	0.27%
■ GBP - Pound Sterling	25	-1	25	
Total Investments	**27,159,199**		**27,524,750**	**100.00%**

Alternative Investments, Commodities & Real Estate
Liquidity & Similar Investments
Equities & Similar Investments
Fixed Income & Similar Investments

Investments in %

CHF
JPY
EUR
USD
AUD

Investments in %

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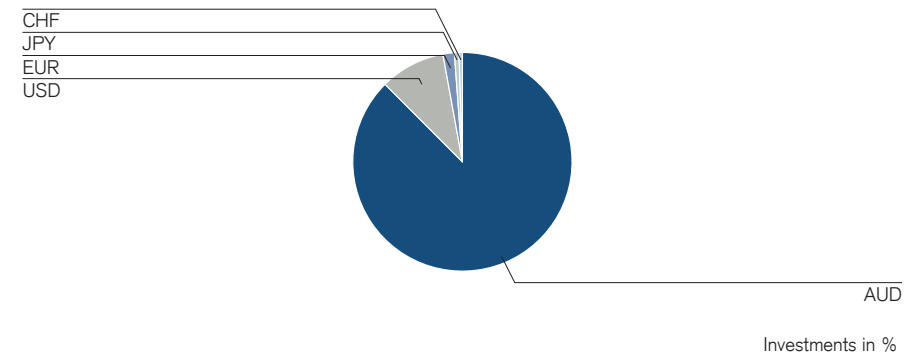
1.2. Income and Activity

Income Summary
Period 1.7.2019 - 31.7.2019

	Current Period in AUD	Year to Date in AUD
Cash Dividend	244,046	580,914
Coupon Received/Paid	0	-9,898
Interest Earned	494	8,199
Interest Paid	0	0
Net Income	**244,540**	**579,216**

Activity Summary
Period 1.7.2019 - 31.7.2019

	Current Period in AUD	Year to Date in AUD
Asset Inflows	0	0
Asset Outflows	0	0
Net Investment Asset Flows	**0**	**0**

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1.3. Performance

Performance Summary
Period 1.7.2019 - 31.7.2019

	Asset Value in AUD	Asset Value in AUD
Ending Market Value		27,524,750
Beginning Market Value		27,159,199
Asset Flows including		0
Inflows	0	
Outflows	0	
Net Non-Investment Flows	0	
Taxes	0	
Flow Adjusted Value Change		365,551
Cumulative Portfolio Return – net		**1.35%**
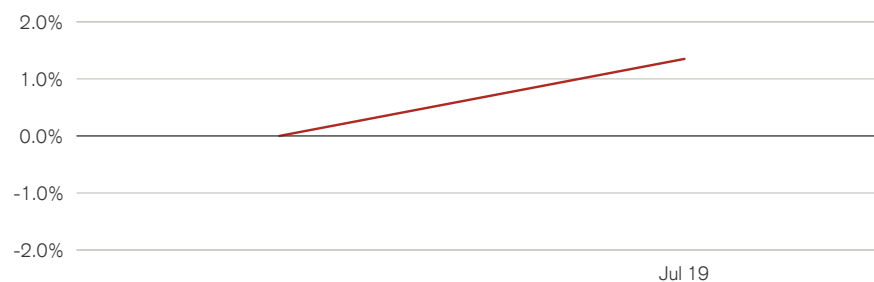
Performance Year-to-date
Period 1.1.2019 - 31.7.2019

	Asset Value in AUD	Asset Value in AUD
Ending Market Value		27,524,750
Beginning Market Value		24,886,409
Asset Flows including		-7,053
Inflows	0	
Outflows	0	
Net Non-Investment Flows	0	
Taxes	-7,053	
Flow Adjusted Value Change		2,645,394
Cumulative Portfolio Return – net		**10.63%**

Cumulative Portfolio Return

Cumulative Portfolio Return

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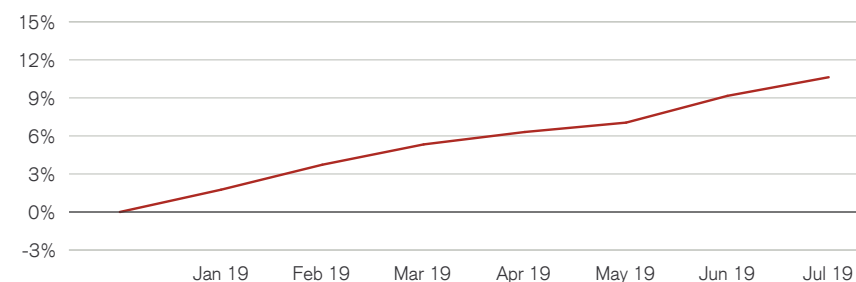
2. Analyses

2.1. Performance

Performance Details
Period 1.7.2018 - 31.7.2019

	Since Start of Period	Aug 18	Sep 18	Oct 18	Nov 18	Dec 18	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19
Ending Market Value	23,938,993	25,235,759	25,123,104	24,849,594	24,674,468	24,886,409	25,323,834	25,815,306	26,209,883	26,453,089	26,637,075	27,159,199	27,524,750
Beginning Market Value	23,348,210	23,938,993	25,235,759	25,123,104	24,849,594	24,674,468	24,886,409	25,323,834	25,815,306	26,209,883	26,453,089	26,637,075	27,159,199
Asset Flows including	500,000	1,000,000	-3,293	0	0	-3,393	0	0	-3,452	0	0	-3,601	0
Inflows	500,000	1,000,000	0	0	0	0	0	0	0	0	0	0	0
Outflows	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Non-Investment Flows	0	0	0	0	0	0	0	0	0	0	0	0	0
Taxes	0	0	-3,293	0	0	-3,393	0	0	-3,452	0	0	-3,601	0
Flow Adjusted Value Change	90,782	296,766	-109,362	-273,510	-175,126	215,334	437,425	491,472	398,029	243,207	183,985	525,725	365,551
Portfolio Return – net	**0.38%**	**1.22%**	**-0.43%**	**-1.09%**	**-0.70%**	**0.87%**	**1.76%**	**1.94%**	**1.54%**	**0.93%**	**0.70%**	**1.97%**	**1.35%**
Cumulative Portfolio Return	**0.38%**	**1.61%**	**1.17%**	**0.07%**	**-0.64%**	**0.23%**	**1.99%**	**3.97%**	**5.57%**	**6.55%**	**7.29%**	**9.41%**	**10.88%**

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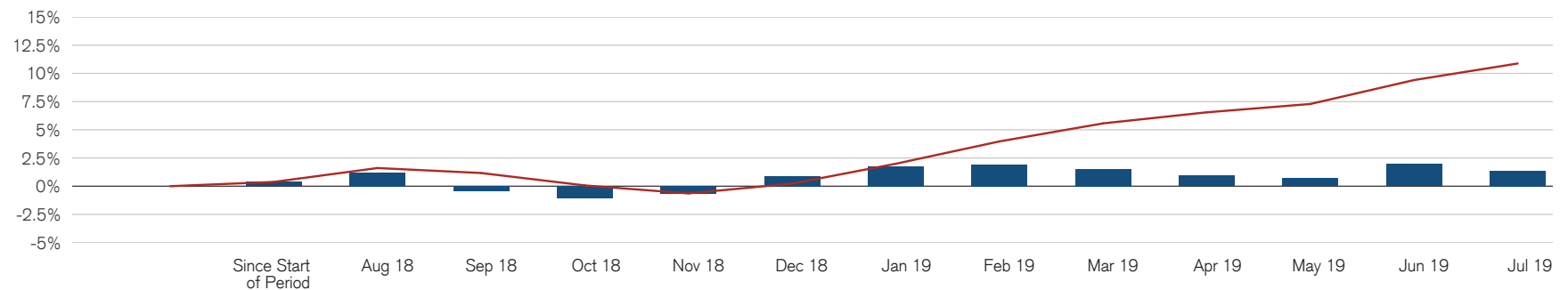
3. Positions

3.1. Investment Related Positions
as of 31.7.2019

Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
Liquidity & Similar Investments								
Accounts								
AUD	144,881.70	Current Account -20300003970945		1.0000		144,882		
						0.53%		
CHF	51,004.80	Current Account -20300003970010		1.0000 0.6806 AUD/CHF		74,706	-237	-0.32%
						0.27%	-237	-0.32%
GBP	13.97	Current Account -20300003970089		1.0000 1.8067 GBP/AUD		25	-1	-2.38%
							-1	-2.38%
USD	111,762.30	Current Account -20300003970780		1.0000 0.7047 AUD/USD		162,121	3,529	2.23%
						0.59%	3,529	2.23%
Total Accounts						381,734 0 1.39%		

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Investment Report 1.7.2019 – 31.7.2019
APNIC PTY LTD
Portfolio: 3000039-70
Reporting Currency: AUD

Number/ Nominal	Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
Call & Time Deposits							
AUD 810,000	1.16% Deposit - Fixed Term (MM1919301056) 12.07.2019 - 02.08.2019 Total interest at maturity: AUD 540.59		1.0000		810,489 489 2.94%		
Total Call & Time Deposits					810,489 489 2.94%		
Total Liquidity & Similar Investments					**1,192,223** **489** **4.33%**		
Fixed Income & Similar Investments							
Fixed Income & Similar Investments AUD							
AUD 690,500	4 % NOTES NEW SOUTH WALES TREASURY CORP 2014-20.5.26 Duration: 6.0191 / Rating: S&P AAA Yield to Maturity: 1.29%	AU3SG0001373 25197437	116.5950%	117.5979% MID 31.07.2019	817,417 5,404 2.97%	6,925 6,925	0.86% 0.86%
AUD 723,000	3 % NOTES NEW SOUTH WALES TREASURY CORP 2016-20.02.30 Duration: 9.0376 / Rating: S&P AAA Yield to Maturity: 1.72%	AU3SG0001571 33439509	109.9290%	112.3064% MID 31.07.2019	821,622 9,647 2.99%	17,189 17,189	2.16% 2.16%
AUD 686,000	2.75 % NOTES AUSTRALIA 2015-21.6.35 SR.UNSEC.SERIES 145 Duration: 13.1340 / Rating: Moody's Aaa Yield to Maturity: 1.45%	AU000XCLWAM0 27670885	114.9540%	118.3906% MID 31.07.2019	814,221 2,062 2.96%	23,575 23,575	2.99% 2.99%
AUD 2,701,764.07	UNITS -D- ISHARES AUSTRALIAN BOND INDEX FUND	AU60BGL01056 2244170	1.0280	1.1048 NAV 31.07.2019	2,984,850 10.84%	207,525 207,525	7.47% 7.47%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD	1,726.721	UNITS PIMCO AUSTRALIAN BOND FUND CLASS -A-	AU60ETL01152 3432899	1,112.2878	1,125.3355 NAV 31.07.2019	1,943,140 7.06%	22,530 22,530	1.17% 1.17%
AUD	2,807,334.632	UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A-	AU60SSB01221 2248336	1.2104	1.3101 BID 31.07.2019	3,677,805 13.36%	279,792 279,792	8.23% 8.23%
AUD	3,431,866.87	UNITS VANGUARD AUSTRALIAN FIXED INTEREST INDEX FUND	AU60VAN00014 1653500	1.1298	1.2027 NAV 31.07.2019	4,127,506 15.00%	250,040 250,040	6.45% 6.45%
Total Fixed Income & Similar Investments						**15,186,562** **17,112** **55.17%**		

Equities & Similar Investments
Equities & Similar Investments AUD

Number/ Nominal		Description	Identification	Cost Valuation	Current Valuation	Value in AUD	Profit/ Loss	P/L
AUD	4,978	REGISTERED SHS AUSTRALIA & NEW ZEALAND BANKING GROUP LTD	AU000000ANZ3 640139 ANZ.AX	29.6884	27.9100 CLO 31.07.2019	138,936 0.50%	-8,853 -8,853	-5.99% -5.99%
AUD	9,313	REGISTERED SHS AURIZON HOLDINGS LTD	AU000000AZJ1 20175896 AZJ.AX	5.1693	5.7600 CLO 31.07.2019	53,643 0.19%	5,501 5,501	11.43% 11.43%
AUD	6,550	REGISTERED SHS BHP GROUP LTD	AU000000BHP4 640390 BHP.AX	28.5717	40.7600 CLO 31.07.2019	266,978 0.97%	79,834 79,834	42.66% 42.66%
AUD	3,138	REGISTERED SHS COMMONWEALTH BANK OF AUSTRALIA	AU000000CBA7 646758 CBA.AX	77.1771	82.3000 CLO 31.07.2019	258,257 0.94%	16,076 16,076	6.64% 6.64%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD	1,686	REGISTERED SHS COMPUTERSHARE LTD	AU000000CPU5 241285 CPU.AX	16.8102	15.8400 CLO 31.07.2019	26,706 0.10%	-1,636 -1,636	-5.77% -5.77%
AUD	1,135	REGISTERED SHS CSL LTD	AU000000CSL8 241548 CSL.AX	104.9787	229.6200 CLO 31.07.2019	260,619 0.95%	141,468 141,468	118.73% 118.73%
AUD	2,080	REGISTERED SHS EVOLUTION MINING LTD	AU000000EVN4 14241033 EVN.AX	2.4388	5.0200 CLO 31.07.2019	10,442 0.04%	5,369 5,369	105.84% 105.84%
AUD	4,974	REGISTERED SHS FORTESCUE METALS GROUP LTD	AU000000FMG4 1655130 FMG.AX	7.5499	8.3300 CLO 31.07.2019	41,433 0.15%	3,880 3,880	10.33% 10.33%
AUD	1,589	CHESS UNITS OF FOREIGN SECURITIES JAMES HARDIE INDUSTRIES PLC	AU000000JHX1 1303670 JHX.AX	21.4806	19.8900 CLO 31.07.2019	31,605 0.11%	-2,527 -2,527	-7.40% -7.40%
AUD	697	REGISTERED SHS MAGELLAN FINANCIAL GROUP LTD	AU000000MFG4 2807450 MFG.AX	24.2684	61.8800 CLO 31.07.2019	43,130 0.16%	26,215 26,215	154.98% 154.98%
AUD	1,136	REGISTERED SHS MACQUARIE GROUP LTD	AU000000MQG1 3422370 MQG.AX	67.5244	128.7900 CLO 31.07.2019	146,305 0.53%	69,598 69,598	90.73% 90.73%
AUD	4,288	REGISTERED SHS NATIONAL AUSTRALIA BANK LTD	AU000000NAB4 641643 NAB.AX	31.2395	28.5100 CLO 31.07.2019	122,251 0.44%	-11,704 -11,704	-8.74% -8.74%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD	1,377	REGISTERED SHS NEWCREST MINING LTD	AU000000NCM7 650853 NCM.AX	22.9235	35.5800 CLO 31.07.2019	48,994 0.18%	17,428 17,428	55.21% 55.21%
AUD	14,855	REGISTERED SHS ORORA LTD	AU000000ORA8 22750502 ORA.AX	2.9789	3.3800 CLO 31.07.2019	50,210 0.18%	5,958 5,958	13.46% 13.46%
AUD	4,289	REGISTERED SHS ORIGIN ENERGY LTD	AU000000ORG5 1051439 ORG.AX	8.7251	7.9400 CLO 31.07.2019	34,055 0.12%	-3,367 -3,367	-9.00% -9.00%
AUD	10,004	REGISTERED SHS QANTAS AIRWAYS LTD	AU000000QAN2 390413 QAN.AX	6.3125	5.7100 CLO 31.07.2019	57,123 0.21%	-6,027 -6,027	-9.54% -9.54%
AUD	1,479	REGISTERED SHS RIO TINTO LTD	AU000000RIO1 603520 RIO.AX	66.4031	98.9000 CLO 31.07.2019	146,273 0.53%	48,063 48,063	48.94% 48.94%
AUD	3,559	SHS RESMED INC CHESS DEPOSITORY INTERESTS REPR 1/10 SH	AU000000RMD6 1058638 RMD.AX	12.9217	19.0000 CLO 31.07.2019	67,621 0.25%	21,633 21,633	47.04% 47.04%
AUD	4,282	REGISTERED SHS RELIANCE WORLDWIDE CORPORATION LTD	AU000000RWC7 32257237 RWC.AX	4.6640	3.6800 CLO 31.07.2019	15,758 0.06%	-4,214 -4,214	-21.10% -21.10%
AUD	60,356	UNITS SPDR S&P/ASX 200 LISTED PROPERTY FUND EXCHANGE TRADED FUND	AU000000SLF1 1377855 SLF.AX	12.8749	14.4400 CLO 31.07.2019	871,541 3.17%	94,462 94,462	12.16% 12.16%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD	3,259	UNITS SPDR S&P/ASX 200 FUND ETF AUSTRALIAN EQUITY EXCHANGE TRADED FUNDS	AU000000STW9 1285707 STW.AX	58.4927	63.1500 CLO 31.07.2019	205,806 0.75%	15,178 15,178	7.96% 7.96%
AUD	2,085	REGISTERED SHS SUNCORP GROUP LTD	AU000000SUN6 588679 SUN.AX	13.7982	13.5100 CLO 31.07.2019	28,168 0.10%	-601 -601	-2.09% -2.09%
AUD	8,655	STAPLED SECURITY TRANSURBAN GROUP	AU000000TCL6 444655 TCL.AX	11.4508	15.5500 CLO 31.07.2019	134,585 0.49%	35,479 35,479	35.80% 35.80%
AUD	10,873	REGISTERED SHS TELSTRA CORPORATION LTD	AU000000TLS2 720464 TLS.AX	4.9151	3.9700 CLO 31.07.2019	43,166 0.16%	-10,276 -10,276	-19.23% -19.23%
AUD	6,906	REGISTERED SHS WESTPAC BANKING CORP	AU000000WBC1 642372 WBC.AX	31.3857	28.6500 CLO 31.07.2019	197,857 0.72%	-18,893 -18,893	-8.72% -8.72%
AUD	834	REGISTERED SHS WESFARMERS LTD	AU000000WES1 642397 WES.AX	31.3065	39.1900 CLO 31.07.2019	32,684 0.12%	6,575 6,575	25.18% 25.18%
AUD	2,738	REGISTERED SHS WOOLWORTHS GROUP LTD	AU000000WOW2 81350 WOW.AX	29.1782	35.6200 CLO 31.07.2019	97,528 0.35%	17,638 17,638	22.08% 22.08%
AUD	2,719	REGISTERED SHS WOODSIDE PETROLEUM LTD	AU000000WPL2 642429 WPL.AX	35.0354	34.7000 CLO 31.07.2019	94,349 0.34%	-912 -912	-0.96% -0.96%

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Number/ Nominal	Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD 4,050	STAPLED SECURITY ATLAS ARTERIA	AU0000013559 41318093 ALX.AX	7.9364	8.1900 CLO 31.07.2019	33,170 0.12%	1,027 1,027	3.19% 3.19%
AUD 4,901	UNITS VANECK VECTORS MSCI AUSTRALIAN SUSTAINABLE EQUITY ETF EXCHANGE TRADED FUND	AU0000050353 48632714 GRNV.AX	26.6460	26.9600 CLO 31.07.2019	132,131 0.48%	1,539 1,539	1.18% 1.18%
AUD 56,035.07	UNITS BLACKROCK CONCENTRATED INDUSTRIAL SHARE FUND CLASS -D-	AU60BLK00126 34230296	1.2782	1.1925 NAV 25.07.2019	66,822 0.24%	-4,803 -4,803	-6.71% -6.71%
AUD 47,633.63	UNITS ELEY GRIFFITHS GROUP SMALL COMPANIES FUND	AU60EGG00011 3222428	2.1141	2.2464 NAV 25.07.2019	107,004 0.39%	6,304 6,304	6.26% 6.26%
AUD 0	UNITS ABERDEEN STANDARD EMERGING OPPORTUNITIES FUND	AU60ETL00329 2220820		2.3329 NAV 31.07.2019			
AUD 21,782.693	UNITS IRONBARK KARARA AUSTRALIAN SMALL COMPANIES FUND CLASS -A-	AU60PAT00021 2879000	3.0257	3.6727 NAV 31.07.2019	80,001 0.29%	14,094 14,094	21.38% 21.38%
AUD 1,189	REGISTERED SHS THE A2 MILK COMPANY LTD	NZATME0002S8 1841567 A2M.AX	15.2484	17.1200 CLO 31.07.2019	20,356 0.07%	2,225 2,225	12.27% 12.27%
AUD 92,091	PENDING SUCCESSFUL SUBSCRIPTION OF UNITS BR GLB ALLOC CLASS -D- BR GLB ALLOC CLASS -D- WHOLESALE		1.0000	1.0000 MID 27.08.2009	92,091 0.33%		
Total Equities & Similar Investments AUD					**4,057,598** **0** **14.74%**		

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
Equities & Similar Investments EUR								
EUR	5,197	SHS EUR ISHARES II PLC - ISHARES CORE MSCI EUROPE UCITS ETF	IE00B1YZSC51 3246398 IQQY.DE	23.7689 1.5037 EUR/AUD	24.3250 CLO 31.07.2019	204,569 0.74%	18,826 4,676 14,149	10.14% 2.34% 7.80%
EUR	9,305	ACCUM.PTG.SHS WELLINGTON MANAGEMENT FUNDS (IRELAND) PLC - WELLINGTON STRATEGIC EUROPEAN EQUITY FUND CLASS -N- UNHEDGED EUR	IE00B9DPD161 20938626	13.8471 1.4731 EUR/AUD	17.1155 NAV 31.07.2019	257,715 0.94%	67,910 49,214 18,697	35.78% 23.60% 12.18%
Total Equities & Similar Investments EUR						462,284 0 1.68%		
Equities & Similar Investments JPY								
JPY	640	UNITS NIKKEI 225 EXCHANGE TRADED FUND	JP3027650005 1264151 1321.T	18,961.5313 87.7787 AUD/JPY	21,990.0000 CLO 31.07.2019	188,087 0.68%	49,838 25,903 23,934	36.05% 15.97% 20.08%
Total Equities & Similar Investments JPY						188,087 0 0.68%		
Equities & Similar Investments USD								
USD	248	ACCUM.PTG.SHS ISHARES VII PLC - ISHARES NASDAQ 100 UCITS ETF USD	IE00B53SZB19 10737617 CSNDX.S	202.2470 0.8873 AUD/USD	446.2500 CLO 31.07.2019	160,537 0.58%	104,009 87,779 16,230	183.99% 120.65% 63.35%
USD	84	RED.PTG.SHS -A- CS RENAISSANCE EQUITY ACCESS FUND LTD	KYG258691016 39462737	1,098.9393 0.6901 AUD/USD	1,126.9245 EST 26.07.2019	137,315 0.50%	3,551 3,410 141	2.65% 2.55% 0.11%

Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
USD	4,584	SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS EMERGING MARKETS EQUITY PORTFOLIO CAPITALISATION	LU0830622741 19578737	13.5800 0.7346 AUD/USD	13.8800 NAV 31.07.2019	92,295 0.34%	7,548 1,995 5,553	8.91% 2.21% 6.70%
USD	34,897	SHS -UCITS ETF USD C- AMUNDI INDEX SOLUTIONS SICAV - AMUNDI MSCI EMERGING MARKETS CAPITALISATION	LU1681045453 38785088 AUEM.PA	4.8361 0.7583 AUD/USD	4.6096 CLO 31.07.2019	233,344 0.85%	10,778 -11,464 22,242	4.84% -4.68% 9.53%
USD	1,160	SHS ISHARES GLOBAL HEALTHCARE ETF	US4642873255 1352444 IXJ.P	47.5979 0.8872 AUD/USD	60.8000 CLO 31.07.2019	102,307 0.37%	40,077 22,215 17,862	64.40% 27.74% 36.66%
USD	1,707	TRUST UNITS SPDR S&P 500 ETF TRUST	US78462F1030 45088 SPY.P	208.1052 0.8218 AUD/USD	297.4300 CLO 31.07.2019	736,483 2.68%	304,196 221,182 83,014	70.37% 42.92% 27.45%
USD	172	SHS VANGUARD INFORMATION TECHNOLOGY ETF	US92204A7028 1781764 VGT.P	205.4900 0.7128 AUD/USD	218.3500 CLO 31.07.2019	54,479 0.20%	4,893 3,209 1,685	9.87% 6.26% 3.61%
Total Equities & Similar Investments USD						1,516,759 0 5.51%		
Total Equities & Similar Investments						**6,224,728** **0** **22.62%**		
Alternative Investments, Commodities & Real Estate								
Hedge Funds								
AUD	510,393.378	UNITS GMO SYSTEMATIC GLOBAL MACRO TRUST CLASS -B-	AU60GMO000067 3375604	1.0073	0.9792 NAV 30.07.2019	499,777 1.82%	-14,355 -14,355	-2.79% -2.79%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
AUD	321,265.67	UNITS BLACKROCK GLOBAL ALLOCATION FUND (AUST) CLASS -D- WHOLESALE	AU60MAL00181 3379478	1.2406	1.2085 NAV 31.07.2019	388,256 1.41%	-10,300 -10,300	-2.58% -2.58%
AUD	166,808	RED.PTG.SHS -A1- AHL (CAYMAN) SPC AUD CLASS A EVOLUTION SEGREGATED PORTFOLIO	KYG012291145 22393979	1.1382	2.0000 NAV 30.06.2019	333,616 1.21%	143,754 143,754	75.71% 75.71%
USD	149	RED.PTG.SHS -A- CS RENAISSANCE ALTERNATIVE ACCESS FUND LTD USD	KYG258511099 34032546	1,160.0017 0.7191 AUD/USD	1,170.0982 EST 26.07.2019	252,902 0.92%	12,546 2,182 10,364	5.22% 0.87% 4.35%
AUD	336,341.333	RED.PTG.SHS -A- AHL DIMENSION (CAYMAN) LIMITED AUD	KYG0132G1652 30773689	0.9991	1.1174 NAV 30.06.2019	375,828 1.37%	39,780 39,780	11.84% 11.84%
Total Hedge Funds						**1,850,379** **0** **6.72%**		
Private Equity								
AUD	123,225.67	UNITS PARTNERS GROUP GLOBAL VALUE FUND (AUD) WHOLESALE	AU60ETL02762 26607292	1.8783	2.3121 NAV 30.06.2019	284,910 1.04%	53,453 53,453	23.09% 23.09%
Total Private Equity						**284,910** **0** **1.04%**		
Commodities & Precious Metals								
AUD	3,833	ETC SECURITY ETFS METAL SECURITIES AUSTRALIA LTD 2003-WITHOUT FIXED MATURITY ON GOLD COMMODITY	AU00000GOLD7 1583458 GOLD.AX	148.6351	195.9900 CLO 31.07.2019	751,230 2.73%	181,511 181,511	31.86% 31.86%

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Number/ Nominal		Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
USD	580	UBS ETC UBS AG, LONDON BRANCH 2007- OPEN END ON UBS BLOOMBER CMCI COMPOSITE TOTAL RETURN	CH0031794263 3179426 TCMCI.S	1,008.3991 0.8355 AUD/USD	856.0000 CLO 31.07.2019	720,189 2.62%	20,125 -128,220 148,345	2.87% -15.11% 17.99%
Total Commodities & Precious Metals						**1,471,418 0 5.35%**		
Real Estate								
AUD	19,203	STAPLED SECURITY DEXUS	AU000000DXS1 3819970 DXS.AX	10.9999	13.1200 CLO 31.07.2019	251,943 0.92%	40,712 40,712	19.27% 19.27%
AUD	23,058	STAPLED SECURITY GOODMAN GROUP	AU000000GMG2 18079202 GMG.AX	8.8381	14.8100 CLO 31.07.2019	341,489 1.24%	137,700 137,700	67.57% 67.57%
AUD	72,767	STAPLED SECURITY MIRVAC GROUP	AU000000MGR9 821911 MGR.AX	1.8439	3.2200 CLO 31.07.2019	234,310 0.85%	100,138 100,138	74.63% 74.63%
Total Real Estate						**827,742 0 3.01%**		

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Number/ Nominal	Description	Identification ISIN Valoren Number Ticker	Cost Valuation Price Exchange Rate	Current Valuation Price/ Type Date	Value in AUD of which Accrued Interest Proportion in %	Profit/ Loss Unrealized in AUD of which Instrument of which Forex	P/L Unreal. in % Instr. in % FX in %
Other Alternative Investments							
AUD 4,309	PTG.SHS LEGG MASON GLOBAL FUNDS PLC - LEGG MASON WESTERN ASSET MACRO OPPORTUNITIES BOND FUND PREMIER CLASS DISTRIBUTING (S) HEDGED AUD	IE00BYYQZZ17 28828240	101.7099	112.9700 NAV 31.07.2019	486,788 1.77%	48,520 48,520	11.07% 11.07%
Total Other Alternative Investments					486,788 0 1.77%		
Total Alternative Investments, Commodities & Real Estate					4,921,238 0 17.88%		
Total Investments					27,524,750 100.00%		
of which Accrued Interest					17,601		

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4.   Appendix

4.1.   Explanations

Accrued Interest
Accrued interest is not displayed for financial instruments with variable interest rate or frequency within the same interest period, except for Floating Rate Notes. For FINER Revexus, the accrued interest displayed is based on the deposit currency for reference purpose only. Entitlement to the accrued interest depends on the product features. All accrued interests are displayed in the reporting currency of the portfolio and are calculated recognizing trades end of day. The FX conversion rates (reflected below) are used to convert the amount from original currency to reporting currency. The accrued interest payable/receivable is displayed as the net amount on Current Account balances. As a result of the foregoing and other factors, the accrued interest is only an estimate and may not reflect the actual interest accrued, if any.

Activity Summary
The asset inflows and outflows include client-instructed transactions, which are aggregated as Net Investment Asset Flows. Non-Investment Flows refer to transactions related to Non-Investment Related Positions such as loan transactions to finance such Non-Investment Related Positions. Non-investment Flows do not contribute to the performance of the account. Such asset inflows and outflows do not include fees and taxes.

Analyses
Values displayed for the respective month labels are as of month-end dates. If the report end period is not a month-end, the report period end month label will show the values as of the report period end date.

Asset Classification
If an instrument is classified as 'not classifiable', the instrument is pending its proper classification. As soon this is available in the system, the instrument will reflect the correct classification.

Cost Valuation Exchange Rates
For the Positions section, the cost valuation exchange rate displayed is always the instrument currency against the portfolio currency.
For the Transactions section, the cost valuation exchange rate displayed is always between the instrument currency and reporting currency. For execution of FX purchase/sale transactions, the transaction valuation is based on the end of day exchange rate on the value date and the cost valuation is based on the FX contract rate.

Duration
Modified duration is a change in the price of a bond arising from a change in market yields. Modified duration is expressed as an approximate percentage. The investment report displays the Modified Duration method for all Fixed Income instruments.

Fees/ Taxes
Fees include management or safekeeping fees.
Taxes include value-added taxes and service related taxes, depending on country specific rules.

Income Summary
Coupon received and coupon paid, as well as interest earned and interest paid, does not include accrued or unpaid coupon or interest.
Year to date figures include the addition of the monthly figures inclusive of any backdated income processing/ adjustments.
Figures shown can be gross or net depending on the specific country and market practice.
Non-Investment related Income is included in the Income Summary.

Market Value
The values stated as begin of period are asset values as of the last reported statement period. The values stated as beginning/ ending market values are asset values that are inclusive of most updated market prices and backdated transactions.

Non-Investment Related Positions
Non-Investment Related Positions refer to positions held in the form of insurance policies, guarantees (standby letters of credit/bank guarantees/holdcovers) or mortgages,. Non-Investment Related Positions are displayed in the Scope of Analysis and in the Non-Investment Related Positions section. However, they are not included in any other analyses.

Performance Calculation
The performance figures are calculated based on investment related positions using the TWR Daily method (Time Weighted Rate of Return), which is based on geometrically linking daily rates of return.
The start of period displayed for the performance calculation is referring to Beginning Market Value, which is the closing balance of the previous day. The end of period displayed is referring to Ending Market Value, which is the closing balance of the day.

The net of fees and gross of taxes return is calculated after deduction of fees and before deduction of taxes.

The cumulative return calculation is reset, every time when geometrically linking the rates of return would render distorted values. Such scenarios can happen when the market values fluctuate around zero.

Return values prior 2015 displayed in this report might be different from previously reported return values.

Profit/ Loss Calculation

Realized and unrealized profit and loss are calculated by comparing the market or transaction value with the average cost value. For every trade date the system computes the average cost, first processing investments before disinvestments. Transaction costs are included in both realized and unrealized profit/loss calculation.

Unrealized profit/ loss displayed in the Positions section are calculated as of the reporting date. FX conversion rates used in the computation of the unrealized profit/loss is the derived rate based on the average price as of the individual transaction date.

Rating

Rating refers to the rating of an investment product and is either based on information available to the Bank or is obtained from sources believed to be reliable by the Bank as of the investment report date.

Yield

The investment report displays Yield for all Fixed Income instruments and is displayed per market price.

Abbreviations

BID	=	Bid Price
CLO	=	Closing Price
EST	=	
MID	=	Average Price
NAV	=	Net Asset Value

Rounding logic

Values in this investment report are calculated with exact numbers, however when presenting the data, values are rounded and therefore minor rounding differences might occur.

Large Numbers

The figures are consolidated and shown in denominations of thousands, millions and billions where applicable. If a value is too long to be displayed in the report itself, e.g. 1,526,555,333.26 the figure is consolidated and displayed as 1,526,555.33 in thousands in the report. If the value exceeds the column limit, a further division will take place and the phrase in millions/in billions will be displayed.

Conversion Rates as of 31.7.2019

AUD 1.0000 = CHF 0.6827
AUD 1.0000 = JPY 74.8248
AUD 1.0000 = USD 0.6894

EUR 1.0000 = AUD 1.6182
GBP 1.0000 = AUD 1.7641

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4.2.   Legal Information

According to the Account Opening Terms and Conditions, this investment report shall be conclusive and binding if the Bank does not receive your objection in writing to any matters contained in this investment report within 14 days from the issue date.

Deposits with Credit Suisse are not subject to Division 2 of the Banking Act - Protection of Depositors.

If your account is booked with Credit Suisse AG, Sydney Branch or if your Relationship Manager (RM) or Investment Consultant is located in Australia, please refer to the Important Notice on Sales Disclosure to Investors for sales related information including information on monetary benefits received by the Bank where it distributes an investment product to you.

The Bank provides price indications for financial derivatives transactions, structured products and non-listed financial instruments based upon available market reference prices believed to be reliable. The Bank does not make any representation as to the accuracy or completeness of price indications for transactions nor the guarantee to buy/sell at the price indicated. The Bank does not accept liability for any loss arising from the client's use of, or reliance on, such price indications. The price indications of the initial purchase price may be different from the actual purchase price.

In the absence of reliable market reference prices, the Bank may assign a nominal value or make an appropriate comment on your investment report. As a result, the investment report may contain price indications or comments as the Bank sees appropriate in the prevailing circumstances. If you have any queries in this respect, please contact your Relationship Manager.

The Bank will, at the time of printing this investment report, use the last price indications available to it. Due to the time differences between the Asia Pacific region and markets in other regions, the price indications reflected in the Bank's investment report will not always reflect the price indications available on the last business day of the month in certain markets.

The Bank may use either an onshore or offshore CNY rate for FX conversion to reporting currency depending on the asset. Please note that there may be a differential between the onshore and offshore rate. Please refer to your RM if you need further information on the FX conversion rate applied in relation to your CNY positions.

The information in this investment report does not constitute legal or tax advice. You should consult your legal and/or tax experts if you need any such advice. The investment report does not take tax rules and regulations into consideration, and thus it cannot be used for tax reporting purposes.

This investment report is an electronically generated report and does not require a signature.

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APNIC Monthly Reporting
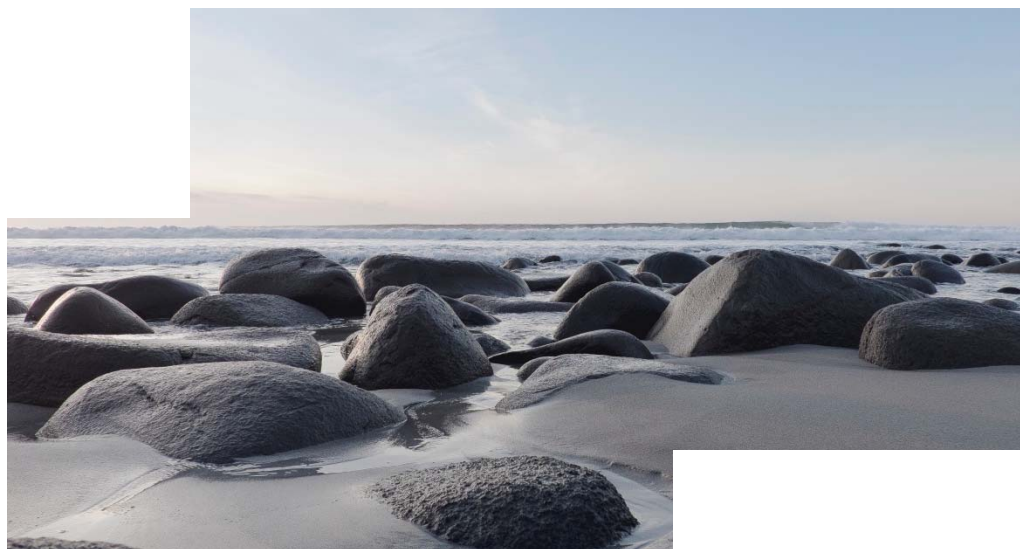
Summary

- The APNIC portfolio continued to perform well in July, +1.37% for the month, as AUD bonds rallied as the RBA delivered a rate cut.

- Global equities ex-Australia rose 2.39% in AUD terms, with gains across all major share markets in July.

- Australian equities also rose 2.94% over the month.

Market Commentary

July saw a continuation of positive equity and bond markets. It was a matter of bad news is good news with generally poorer data reinforcing the case for monetary easing from central banks. In AUD terms, US, European and Emerging Markets equities returned 3.35%, 0.12% and 0.64%, respectively. The global thematic played out locally as the RBA cut rates in the July meeting which saw the Australian share market rally 2.94% and the Australian bond market advance 0.95%.

The economic environment in Australia continues to soften. Retail sales growth YoY fell to 2.7% in June, continuing a downward trend that has been underway since the end of 2018. Given retail sales is equivalent to around one third of household spending, this does not bode well for consumer spending growth. Ample spare capacity persisted in the labour market with the unemployment and participation rates holding steady in June at high levels of 5.2% and 66%, respectively. However, the local economy could see some respite in the second half of the year. According to CoreLogic, national housing prices have remained stable over July, following 20 months of decline. Although it is too early to determine whether this is a bottom, the flattening trend is encouraging. The softening economic outlook has also prompted monetary stimulus from the RBA which should provide further support to the economy.

US data was a mixed bag. The drag from escalating global trade tensions came through in a number of data points including manufacturing PMI which fell from 51.7 to 51.2 in June, industrial output which contracted by -1.2% over the year and job creation which decelerated in July. The softer data saw the Fed take action to stimulate the economy by implementing a 0.25% rate cut, albeit downplaying the view that it was the beginning of an easing cycle. Even so, consumer and business sentiment were at high levels while retail sales surprised to the upside, rising 0.4% over the month of

June. With 2Q19 annualised GDP growth of 2.1% and room to move on rates, the Fed can afford to wait for more data points before cutting again.

European economic growth slowed down in 2Q19 with GDP for the area growing 0.2%, compared to 0.4% in the first quarter. The economy continues to be weighed down by a weak manufacturing sector with PMIs across all of the big four Eurozone countries printing below 50 in July which saw the overall manufacturing PMI for the Eurozone fall from 47.6 to 46.5. There were some small positives for the region but the detail in the data was less optimistic. Retail sales bounced back strongly in June, growing 1.1% over the month but this came after a downward revision to the May number. Consumer confidence improved slight over July but remained a negative indicator at -6.6. On the bright side, although the European Central bank kept rates unchanged in July, they have signalled their readiness to step in with monetary stimulus in September if the economic environment deteriorates further.

Economic growth in China slowed in 2Q19 to 6.2%, down from 6.4% in the prior quarter. However, a number of figures in June surprised to the upside including industrial production which was up 6.4% YoY, fixed assets investment which increased 5.8% YoY and retail sales which rose 9.8% over the month. Despite the escalating trade war, the manufacturing PMI improved modestly from 49.4 to 49.7 in July and although credit growth slowed in July, credit momentum is trending upwards. While the ongoing trade war with the US and escalating tensions with Hong Kong have added to downside risk, in a recent move to devalue its currency, the government has also demonstrated its willingness to support the economy through any means necessary.

In the local market, the top performing sectors were Consumer Staples (+9.82%), Healthcare (+5.92%) and Information Technology (+4.95%) while Materials (+0.98%), Energy (+1.72%) and Financials (+1.73%) were the worst performers.

Market Value as at 31 July 2019

	Market Value
APNIC Portfolio	**A$27,531,973**

Performance as of 31 July 2019

	APNIC Portfolio			
	Portfolio	Benchmark	Relative	CPI + 2.5%
Month	1.37%	1.35%	+0.02%	0.34%
3 Months	4.09%	4.32%	-0.23%	1.00%
Year To Date	10.66%	10.52%	+0.14%	2.37%
1 Year	10.49%	9.91%	+0.58%	4.27%
3 Years pa	5.52%	5.75%	-0.23%	4.33%
Since Inception pa	6.02%	6.17%	-0.15%	4.43%

* Performance is after fees but before franking

Positive Contributors to Performance

Funds performing best during the period included: Ironbark Karara Australian Small Companies Fund (+4.72%), SPDR S&P 500 ETF (+4.29%) and iShares NASDAQ 100 UCITS ETF (+4.18%).

Australian stocks performing well included:

A2 Milk Company (+23.68%)
The region's leading infant formula brand performed strongly as recent industry feedback indicated momentum in the group's China business remained positive. New Zealand export data implied strong volume growth rates have been maintained while recent price increases are consistent with good brand health and positioning. Analyst expectations for the group's upcoming result are positive.

Magellan Financial Group (+19.78%)
Strong global equity market returns and a positive update on the group's funds under management continued to fuel a strong earnings outlook. The monthly update highlighted a high $83m performance fee and good inflows into Magellan's global equity funds. These trends have led to analyst's upgrading their earnings projections for Magellan in FY20.

Negative Contributors to Performance

Funds which did not perform as well over the month included: CS Renaissance Alternative Access Fund (-1.95%), CS Renaissance Equity Access Fund (-1.76%) and Legg Mason Western Asset Macro Opportunities Bond Fund (-0.77%).

Australian stocks underperforming included:

Fortescue Metals (-8.87%)
Investor concerns on a potential peak in the iron ore price led to declines in the share price of Australia's third largest iron ore producer. These concerns reflected a modest fall in iron ore prices from a significant peak earlier in the month and a production update from Brazilian competitor Vale that implied their iron ore production rate would start to recover in the second half of the year. These concerns overwhelmed a positive company production report where price realisation during the quarter exceeded analyst expectations.

Woodside Petroleum (-4.65%)
A soft production report and a weaker oil price impacted the Woodside share price during the month. Problems following a planned shutdown at the Pluto facility led to production shortfalls and higher operating costs. Higher than expected depreciation charges also put downward pressure on analyst profit projections.

Rio Tinto (-4.59%)

The company's stock price was impacted by concerns on a potential peak in the iron ore price and a disappointing update on the group's Oyu Tolgoi copper project. The update revealed a capital cost increase of $US1.2bn to $US1.9bn leading to a revised cost of $US6.5bn-$US7.2bn. In addition first production has been delayed by up to 30 months potentially leading to a June 2023 start date.

Asset allocation

Stock	Tactical Position
Cash	Underweight
Bonds	Overweight
Australian Equities	Neutral
International Equities	Neutral
Alternative Investments	Overweight

Outlook

We have seen a selloff in equity markets since President Trump announced further tariffs to apply to Chinese goods from September. Having reduced equities to neutral, we are not inclined to take further risk off the table. Firstly, the impact of the tariffs themselves on the US economy should be negligible apart from slightly increased costs for business. Secondly, the latest data out of China and other Asian countries suggests green shoots of stabilisation. Thirdly, should the US and global economy unexpectedly deteriorate further, the Fed and other central banks stand ready to ease – as confirmed in the last two weeks by the European Central Bank, the Bank of Japan and, most recently, the Federal Reserve. Finally, we continue to believe that President Trump will want to de-escalate the trade war as the 2020 election nears. That, however, is some way off. In the shorter term, risks have clearly increased, with continued political unrest in Hong Kong and trade disputes between Japan and South Korea coming on top of the US-Chinese trade tensions. China's willingness to resort to currency devaluation adds a further risk dimension. For these reasons, we counter balance the neutral position in equities with a full allocation to bonds in terms of weight and duration.

That said, our Global CIO Office continues to view equity markets as attractive. Equity valuations versus historical PE multiples are stretched. Thus, some profit taking can be expected. However, valuations versus bond yields are supportive, and dovish central banks are acting as a back stop to markets. Thus, we believe any weakness in risk markets is likely to be short lived.

Within equities, we favour the US, and have moved emerging markets to neutral, given they are particularly vulnerable to the trade conflict.

Data Sources
Credit Suisse, unless otherwise specified.

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CREDIT SUISSE AG

Private Banking Australia

1 Macquarie Place
Sydney NSW 2000

credit-suisse.com/au

APNIC financial outlook

APNIC EC Meeting

Chiang Mai, Thailand

Sep 2019

APNIC

Contents

- High level forecast 20/21

- Expenses

- Revenues

- Surplus and Reserve

- Fee schedule scenarios

APNIC

High Level Forecast 2020/21

Background:

- The 2020 Budget and Activity Plan submission will be presented to the EC for approval at the EC retreat in early December 2019

- The APNIC Secretariat budget process will commence in October for completion in late November.

- Direction from the Executive Council and outcomes from the 2020-2023 strategic planning process will be key drivers for the 2020/21 operational plans

- The budget will include known commitments together with provisions for planned expenditure on new and ongoing projects and activities

APNIC

High Level Forecast 2020/21

Assumptions in this forecast:

- Membership growth continues on a similar trend to 2018/19

- Normal expenses to increase by with around 5.8%, including CPI which is expected to be around 1.6%

- Full year impact of expected staffing at the end of 2019

- Investment fund performs in line with recent trends

Expenses

APNIC

Expenses

Observations:

- The secretariat continues to achieve efficiency gains

- Expenses continue to increase to support growing membership and activities

- Operating expenses per member continues to decline

- CAPEX growth declining with more reliance on cloud solutions

- CPI from Jun 2015 to Jun 2020 forecast to be 8.4% (cumulative), 5 years to Jun 2019 is 6.7%
  - Costs for goods and services continue to increase in real terms

Expenses 2020/21
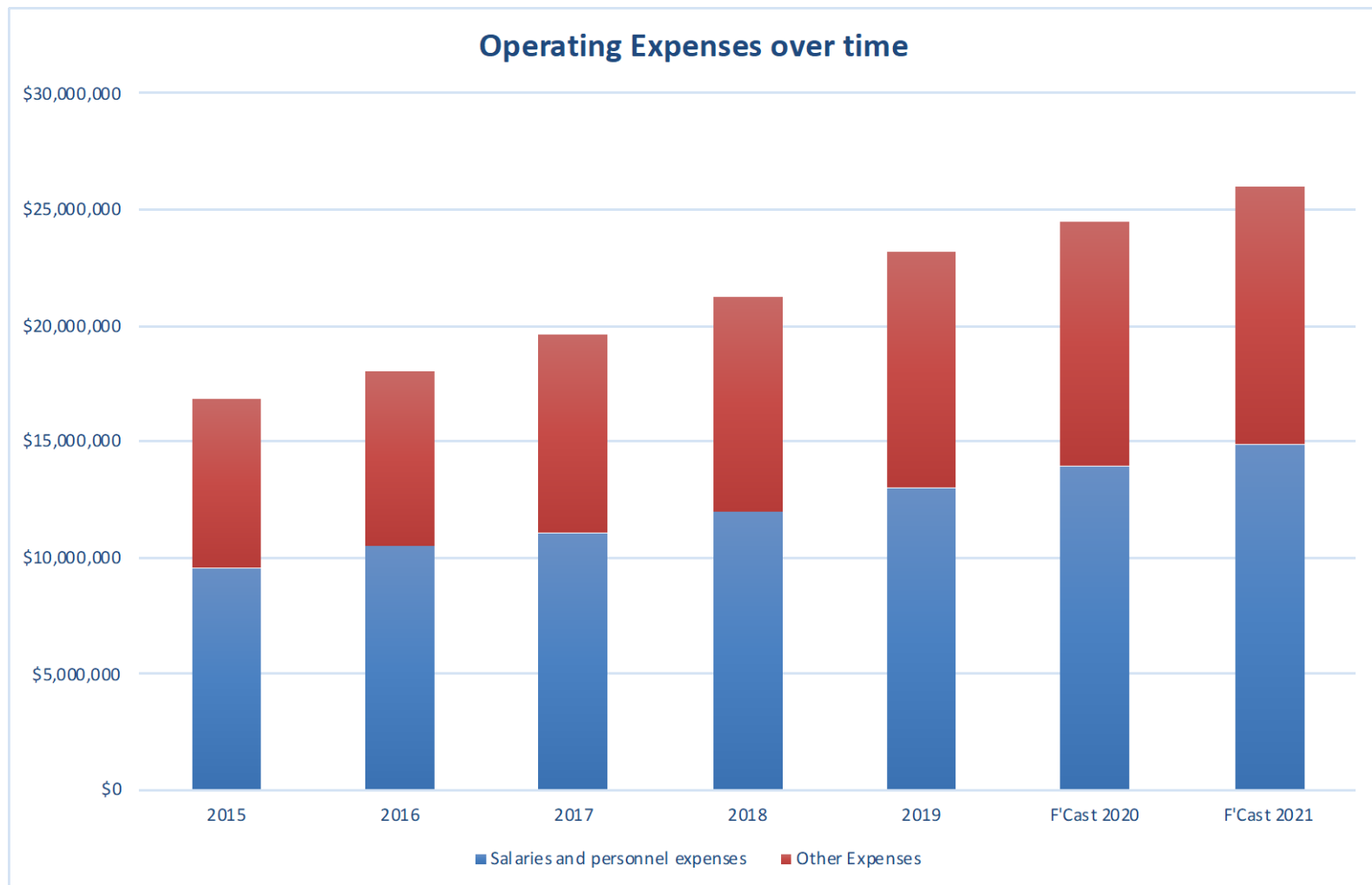
Efficiency Measures – Members/FTE

Ratio of Members per FTE
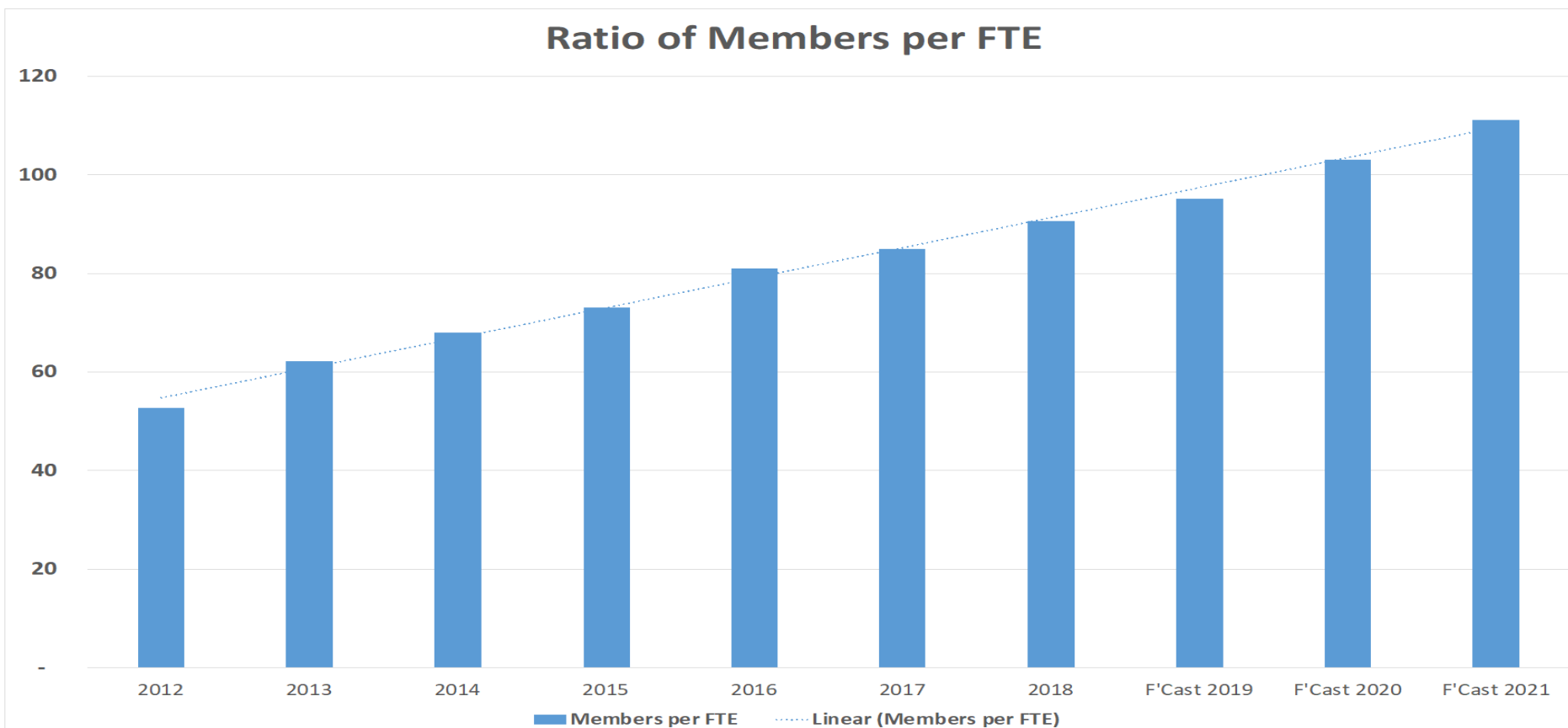
	2012	2013	2014	2015	2016	2017	2018	F'Cast 2019	F'cst 2020	F'Cast 2021
FTE	67	65	68	72	74	77	79	82	82	82
APNIC Members	3,534	4,051	4,618	5,268	5,994	6,547	7,162	7,812	8,462	9,112
Members/FTE	53	62	68	73	81	85	91	95	103	111

APNIC

Expense analysis – Opex/Member

Operating Expenses per Member

Consumer Price Index (AU)

The Effect of CPI on the Fees

Legend:
- Consumer Price Index - Annual (AU)
- Cumulative CPI Commencing 2016
- Base Fee discounted by CPI
- CPI Applied to base fee from 2016

https://www.rba.gov.au/inflation/measures-cpi.html

Revenues

APNIC
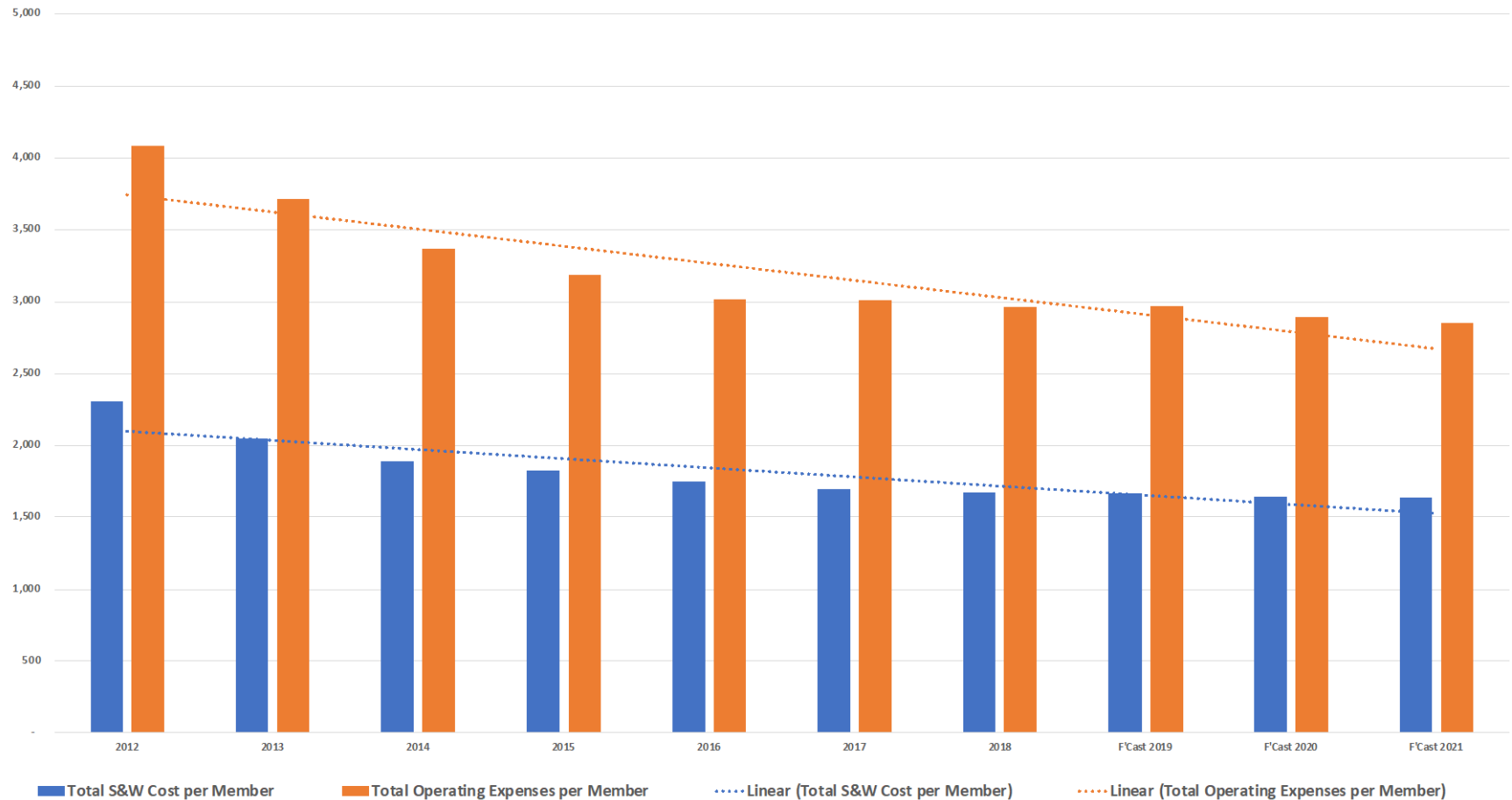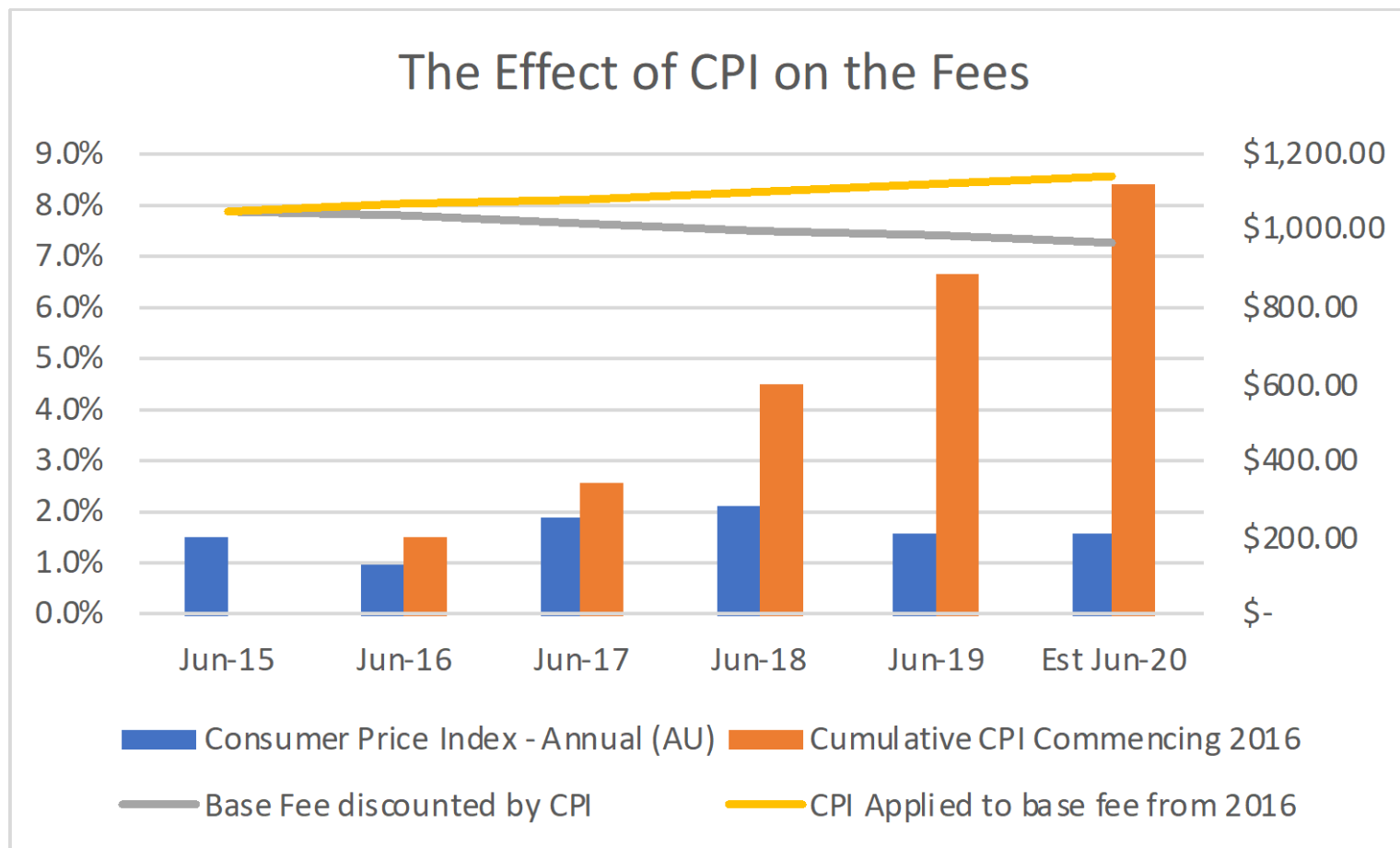
Revenues

Observations:

- Revenue from Membership fees continues to grow at just over 4%.

- Revenue per Member continues to decline, driven by policy changes in relation to IPv4 resources

- There has been no change to fees since 2015, which was a reduction, based on a sustainable fee structure at that time.
  - Expectation of regular adjustments of fees

Revenue 2020/21

Operating Revenue over time
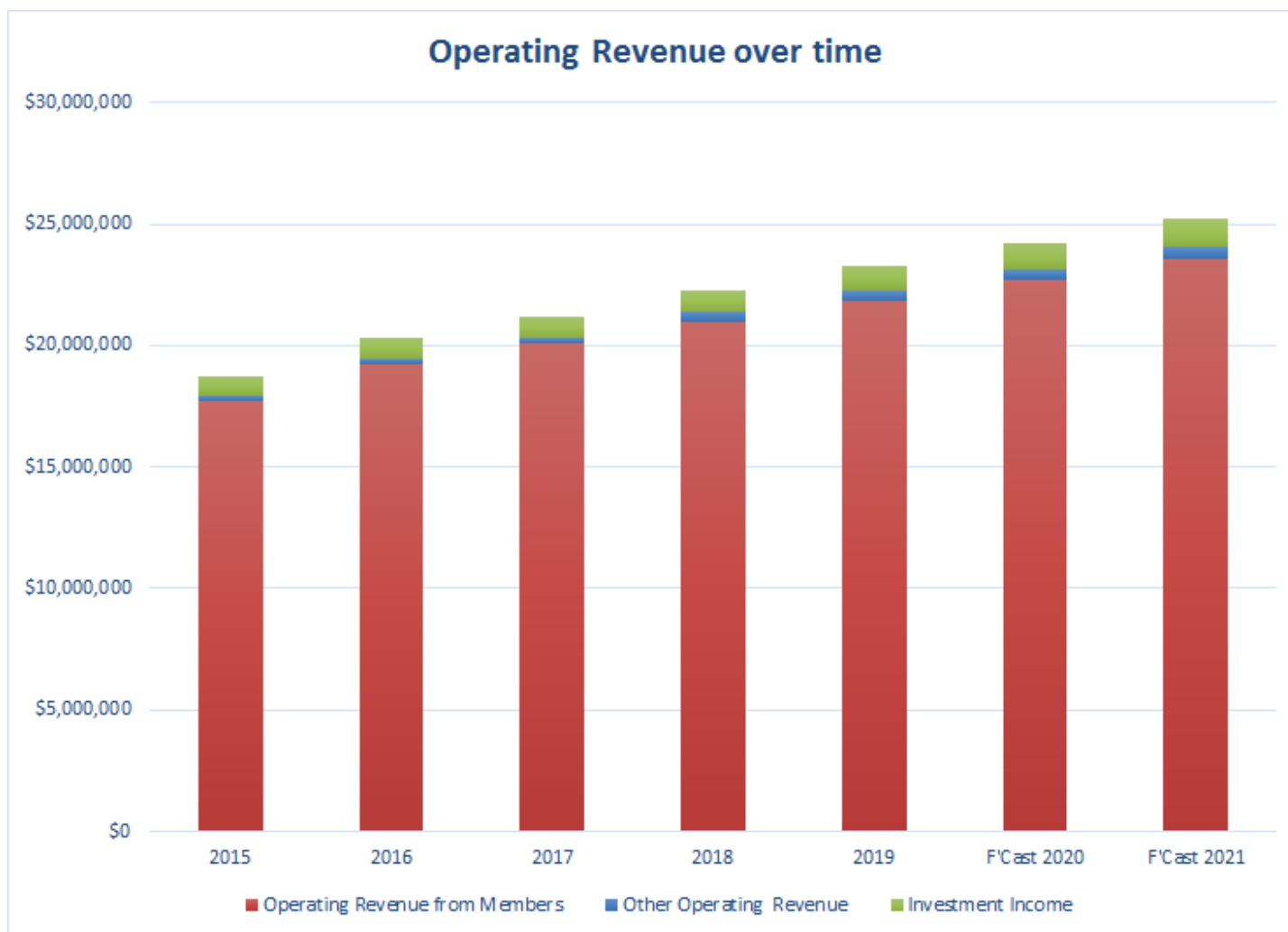
Revenue analysis – per Member

Operating Revenue per Member

Legend: Total Operating Revenue per Member · · · · Linear (Total Operating Revenue per Member)
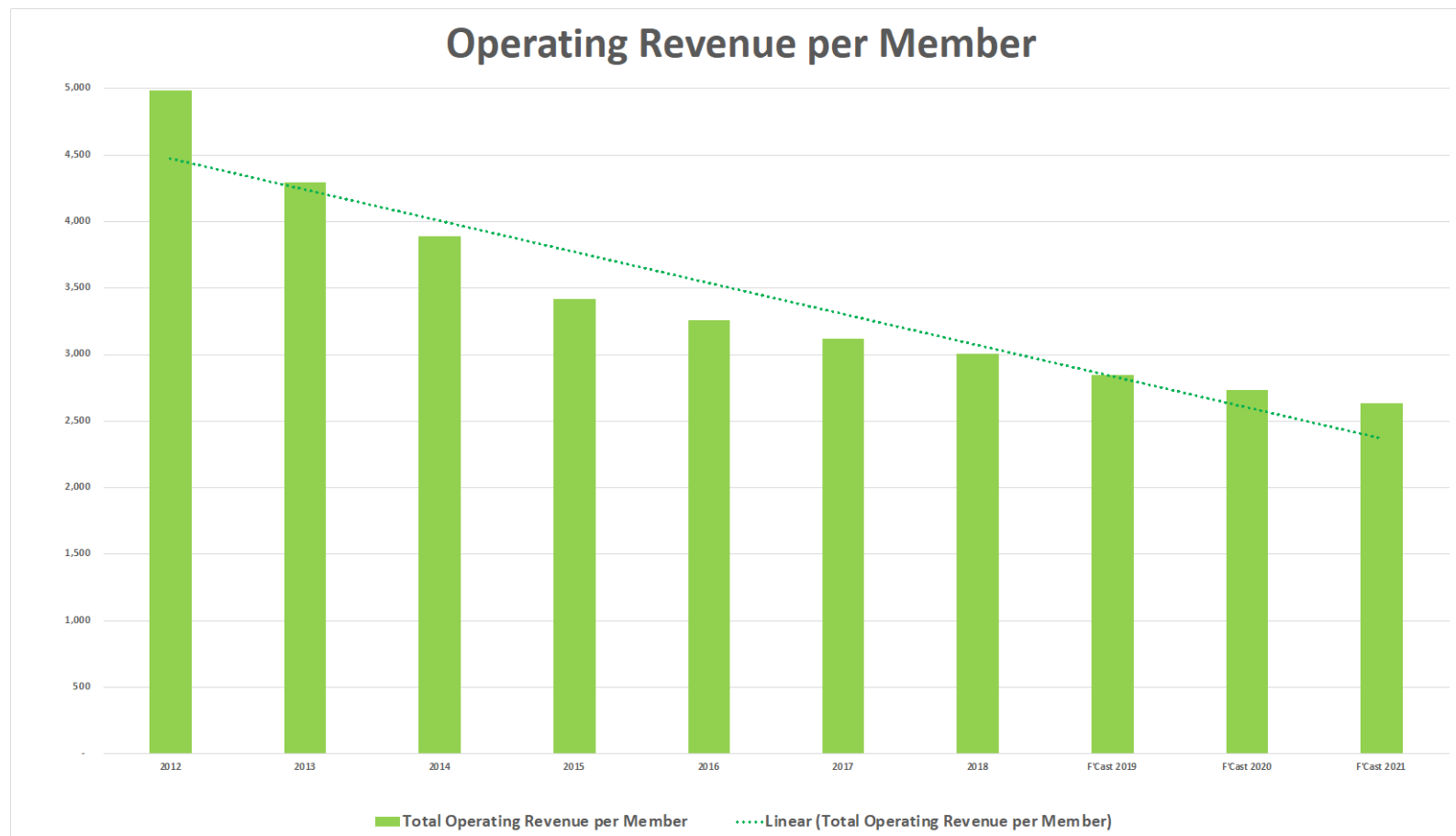
	2012	2013	2014	2015	2016	2017	2018	F'Cast 2019	F'cst 2020	F'Cast 2021
Operating Revenue	17,602,161	17,425,855	17,968,303	18,038,246	19,531,112	20,454,383	21,537,347	22,251,619	23,139,814	24,038,274
APNIC Members	3,534	4,051	4,618	5,268	5,994	6,547	7,162	7,812	8,462	9,112
Revnue Per Member	4,981	4,302	3,891	3,424	3,258	3,124	3,007	2,848	2,735	2,638

APNIC

Surplus and Reserve

Justification for a review of fees

- APNIC continues to increase efficiency, but underlying Revenue growth is slower than expense growth.
  - Due to IPv4 address exhaustion (more small members)
  - Due to LDC discount (growing number of LDC members)

- Maintaining over 16 months of reserves will become increasingly difficult let alone achieving the target 18 months.

- There has been no increase in the base fee increase since 2010

- For Members, small fee changes are not significant compared to exchange rate fluctuations.

Surplus/Deficit

REVENUE and EXPENSES (AUD)	Actual 2015	Actual 2016	Actual 2017	Actual 2018	Forecast 2019	Forecast 2020	Forecast 2021
Total Revenue	18,762,014	20,309,305	21,158,128	22,243,077	23,283,972	24,249,594	25,231,287
Total Expenses	16,805,493	18,068,294	19,676,928	21,214,519	23,181,447	24,523,750	25,934,168
Operating Surplus	1,956,520	2,241,011	1,481,199	1,028,557	102,525	-274,157	-702,881

Revenue and Expense over time
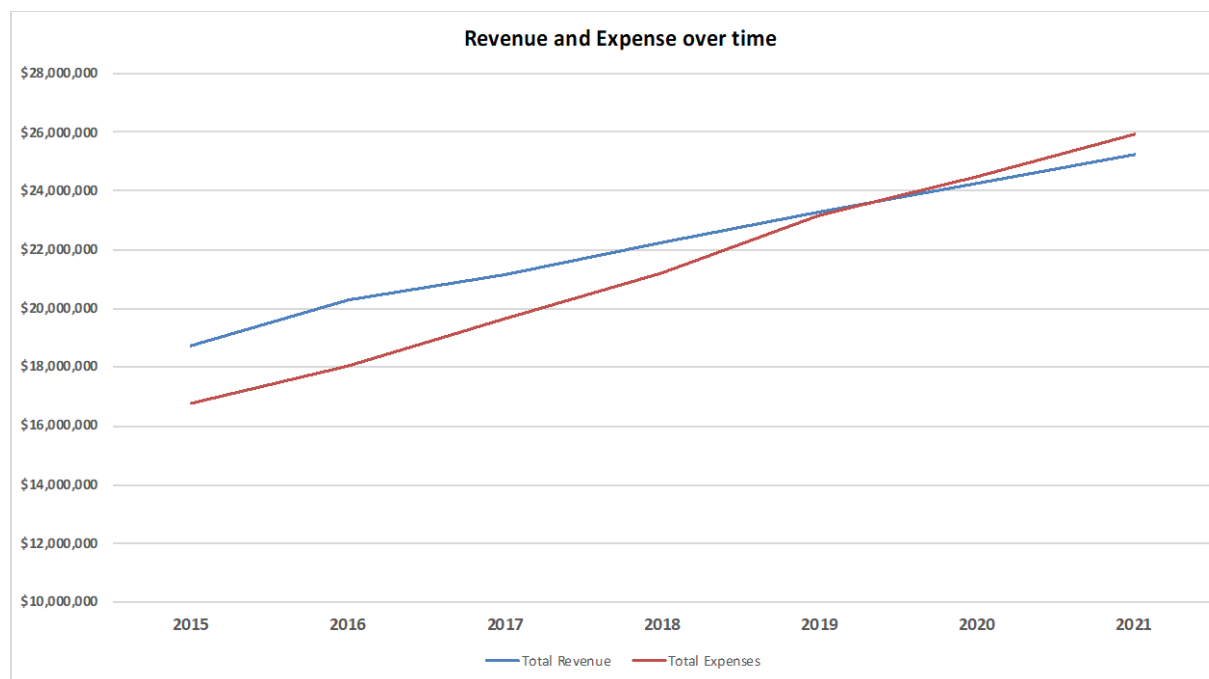
Performance against Reserve Target

	2015	2016	2017	2018	YTD 2019	Forecast 2019	Forecast 2020	Forecast 2021
Total Equity (AUD)	$23,319,460	$25,647,507	$27,708,013	$28,820,985	$31,516,701	$31,085,398	$31,486,241	$31,458,360
Forecast/Actual Daily Operating Expenses (AUD)	$46,077	$49,430	$53,909	$58,122	$63,511	$63,511	$67,188	$71,053
Number of Months of expenses covered by Equity	16.64	17.01	16.90	16.25	16.31	16.09	15.41	14.56

Forecast assumes 2.5% capital growth on investment portfolio

# of Months Expenses covered by Reserves
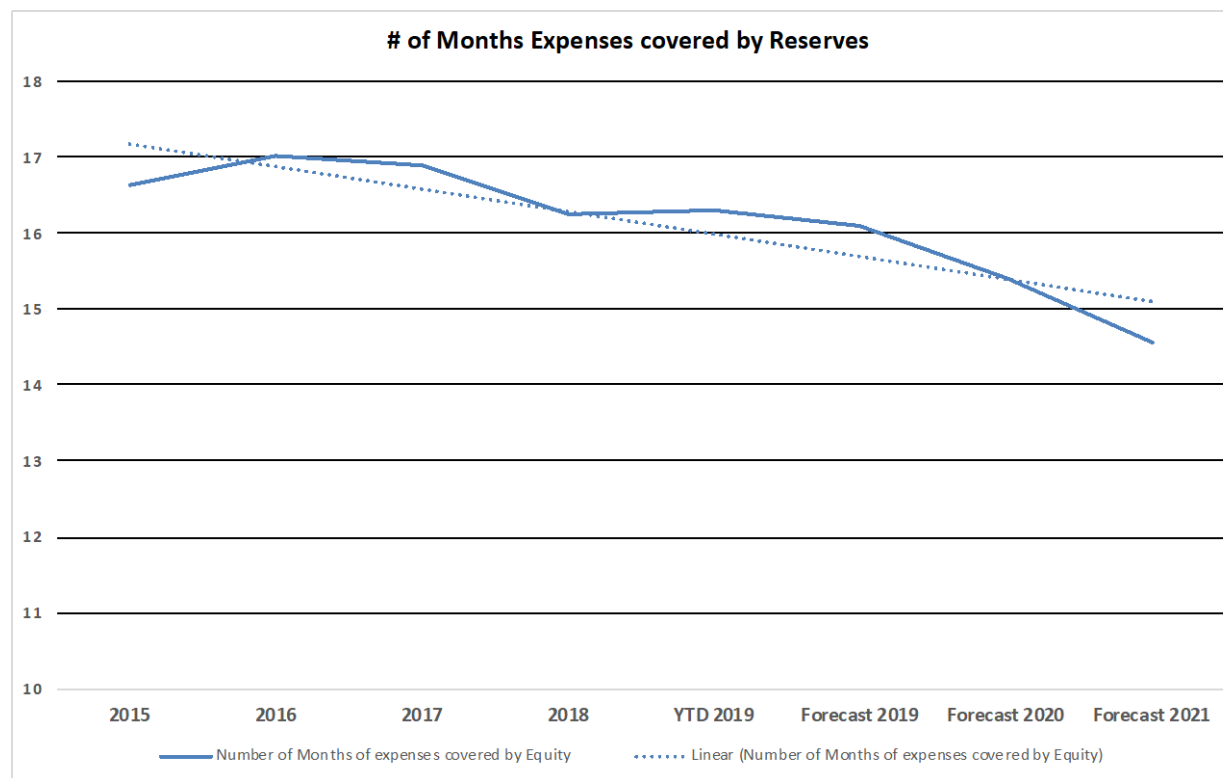
Fee Schedule

APNIC

Fee schedule history
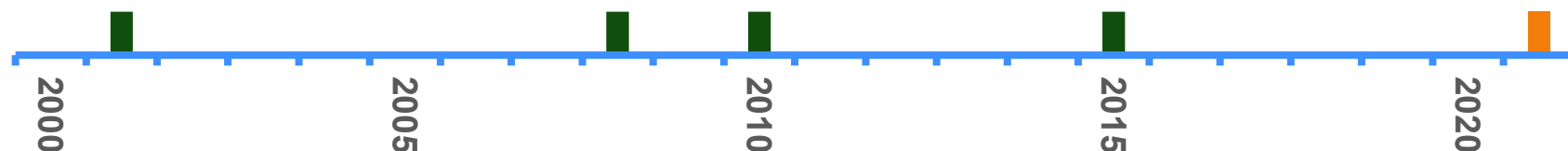
- Dec 2001
  - Tiered structure with NIR per-allocation fees, USD

- Jan 2008
  - AUD
  - LDC discount

- Jan 2010
  - Continuous formula
    - Base: $1180, Factor: 1.300
  - NIR multiplier x2.9

- Jan 2015
  - Formula adjustment
    - Base: $1050, Factor: 1.308
  - Reduced joining and reactivation fees

APNIC

Exchange rates compared to 2010

% Change in fees due to exchange rate variances from 2010 to 2019

Local Currency compared to 1 AUD		
Year	USA	EURO
2010	0.9045	0.6932
2019	0.6886	0.6188
Change	-24%	-11%
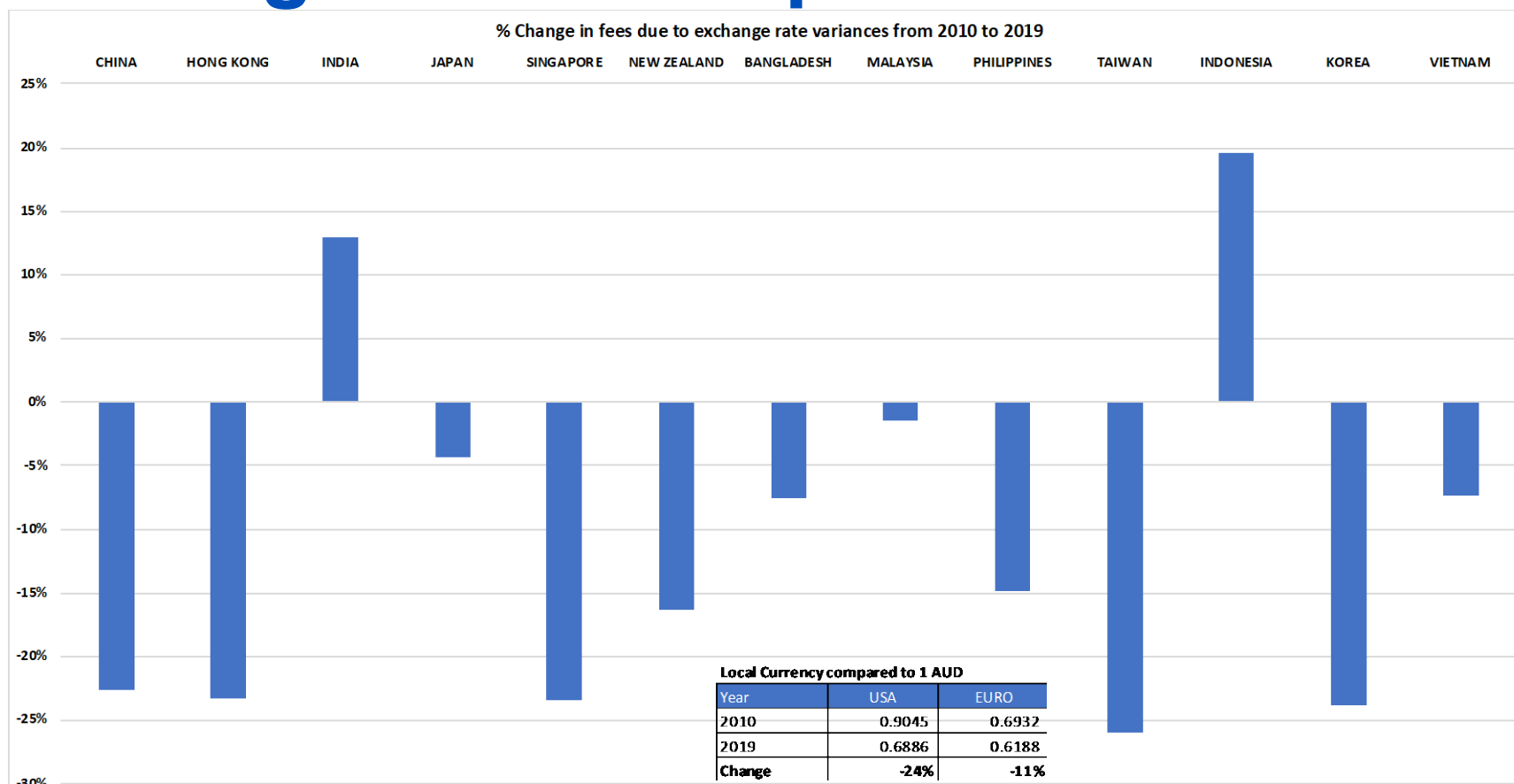
Local Currency compared to 1 AUD

Year	CHINA	HONG KONG	INDIA	JAPAN	SINGAPORE	NEW ZEALAND	BANGLADESH	MALAYSIA	PHILIPPINES	TAIWAN	INDONESIA	KOREA	VIETNAM
2010	6.1275	7.0250	41.9688	78.2031	1.2303	1.2467	62.8628	2.8808	41.0914	28.9187	8,077.1851	1,069.2094	17,230.7251
2019	4.7407	5.3901	47.4026	74.7794	0.9426	1.0440	58.1345	2.8375	35.0025	21.4210	9,654.1531	814.3302	15,968.9969
% Change	-23%	-23%	13%	-4%	-23%	-16%	-8%	-2%	-15%	-26%	20%	-24%	-7%

https://www.xe.com/

APNIC

Objectives

- Reflect CPI increase since last adjustment
  - 5 years from July 2015 to July 2019

- Target 18 month capital reserve
  - By end of next planning cycle, 2023
  - Approx 0.5 months additional surplus per year (approx 4% on expenses, annually)

- Provide a least 6 months advance notice of increase
  - Applicable no later than January 2023

Fee structure variables

- Existing Fee Schedule parameters
  - Base fee
  - Bit factor
  - NIR Multiplier
  - Historical resource fees

- Other adjustments
  - IPv4 vs IPv6 address space formula
  - NIR vs NIR subaccounts
  - Non-Member fees
  - LDC discount

Scenarios

1. Adjust base fee

2. Adjust bit factor

3. Adjust NIR multiplier

4. Historical resource fees

5. Combination of the above

- Adjustment of other fee variables

- Simplification of fee structure

1. Adjust Base Fee

- Summary
  - Adjust Base Fee (currently $1050) by chosen %

- Impact
  - Same % impact on all annual membership fees, including NIRs

- Advantage
  - Simple to implement, explain and understand
  - May be regarded as a "fair" distribution of the increase

- Disadvantage
  - No impact on "fairness" of fee structure

2. Adjust Bit Factor

- Summary
  - Adjust Bit Factor (currently 1.308) to provide required increase in annual member fees

- Impact
  - No increase for Members paying the minimum (Base) fee
  - Small % increase for small members
  - Increasing % effect for larger address holdings (and NIRs)

- Advantage
  - Smallest impact on large majority of APNIC members
  - May be regarded as a fairer solution, to reduce "volume discount".

- Disadvantage
  - Harder to calculate individual and overall impact
  - Larger percentage increase may be opposed by largest members

3. NIR multiplier

- Summary
  - Adjust "multiplier" which is applied to NIR address holdings

- Impact
  - No impact on normal APNIC members
  - Same % impact on all NIRs, according to the change in the multiplier

- Advantage
  - May be regarded as a fair solution, to reduce "volume discount" enjoyed by NIRs

- Disadvantage
  - NIR fees represent a small proportion of APNIC revenues; therefore impact is limited unless change is substantial.

4. Historical resource fees

- Summary
  - Assess historical resources in the same way as current resources for annual fee calculation.

- Impact
  - No impact on large majority APNIC members
  - Holders of historical resources experience new fee burden
  - Larger members with limited historical resource will not feel much.

- Advantage
  - May be regarded as a fairer solution, to share responsibility for funding APNIC

- Disadvantage
  - Likely objections from some "traditionalist" historical members
  - Impact approx. 7% on APNIC revenue if same formula is applied

APNIC

5. Combination of measures

- Summary
  - Apply some or all above measures (1 to 4)

- Impact
  - Impact will be felt by all members

- Advantage
  - Worst effects of any one measure are likely to be reduced

- Disadvantage
  - Difficult to calculate the total and individual impact of a set of changes.

Discussion/Questions?

Agenda Item 10
Secretariat report

APNIC Secretariat Report

1 Jan to 31 Jul 2019

APNIC EC Meeting, Chiang Mai
9 September 2019

Membership
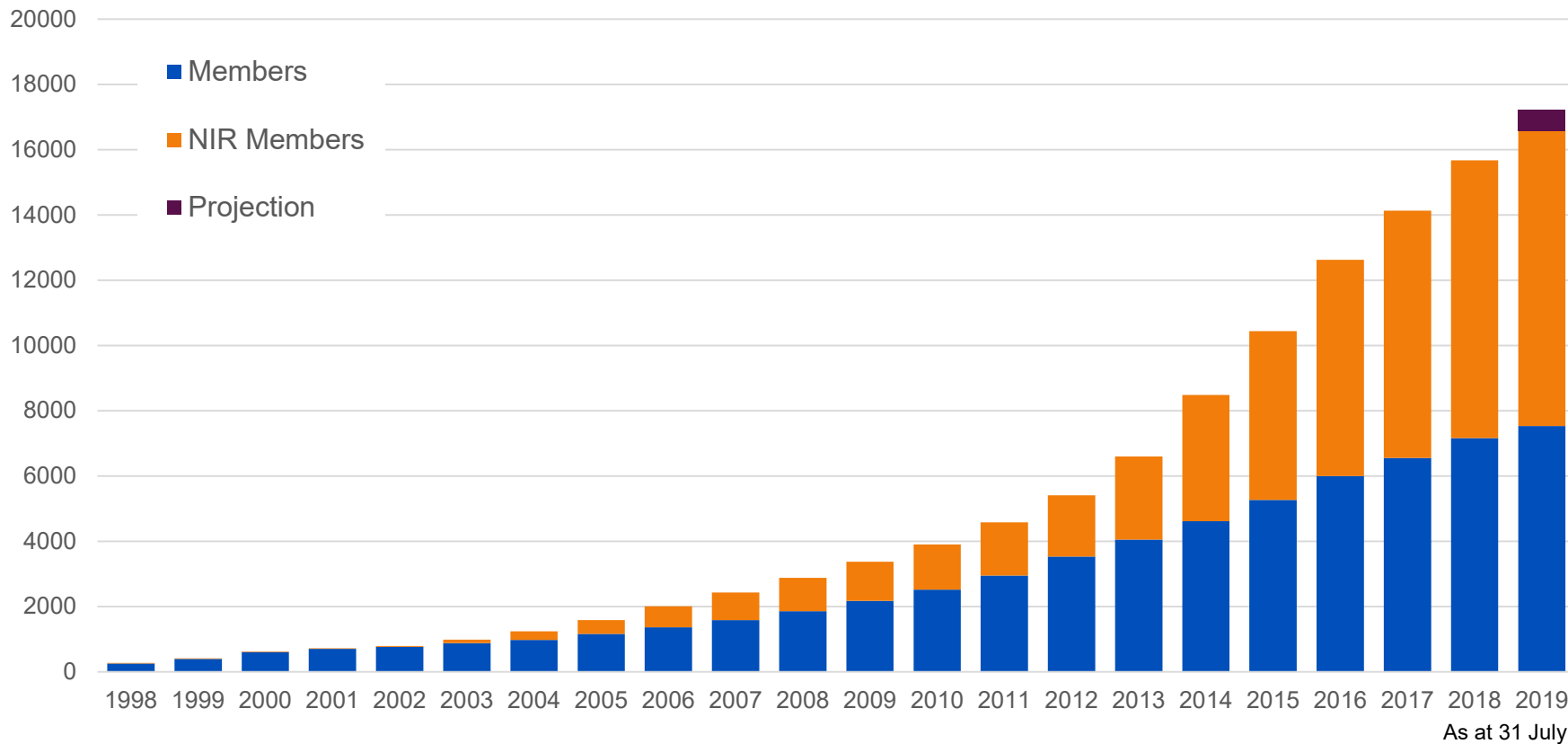
As at 31 July

APNIC

IPv4 delegations

As at 31 July

Legend: East Asia, Oceania, South East Asia, South Asia, Projection

IPv6 delegations

As at 31 July

Legend: East Asia, Oceania, South East Asia, South Asia, Projection

IPv4 transfers

As at 31 Jul

Legend: Within APNIC Region, Between RIR Regions, Projection

ASN delegations

As at 31 Jul

Legend: East Asia, Oceania, South East Asia, South Asia, Projection
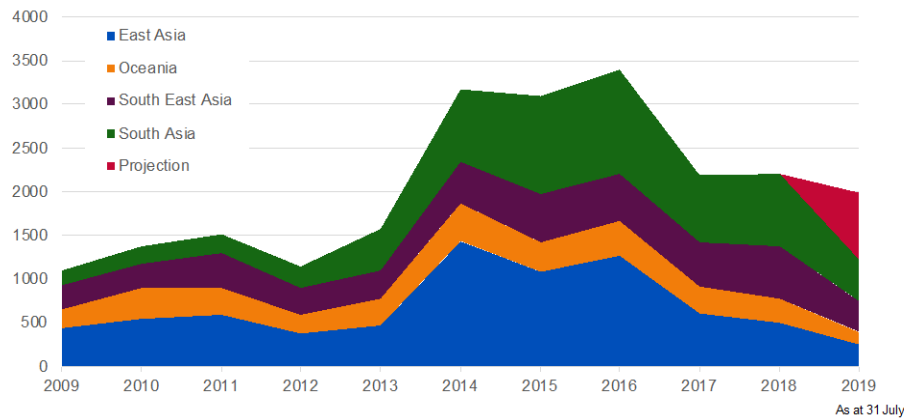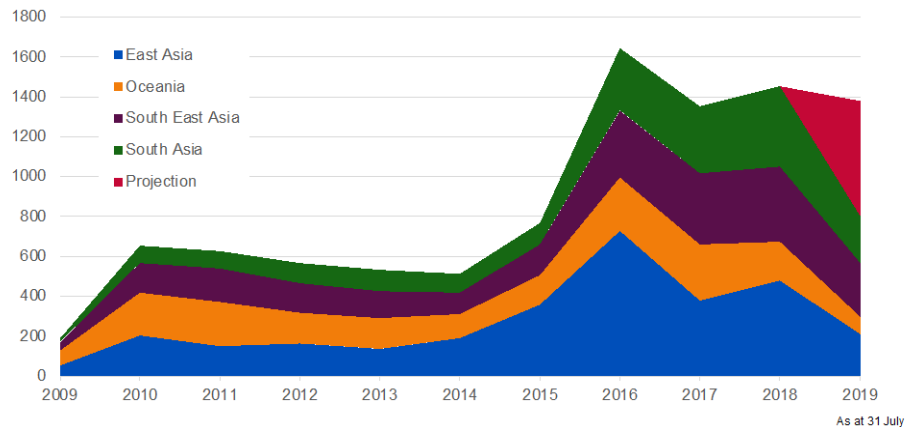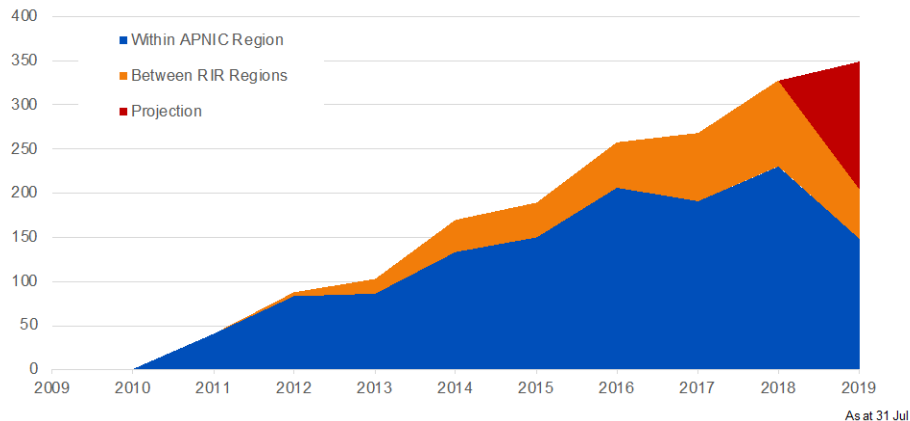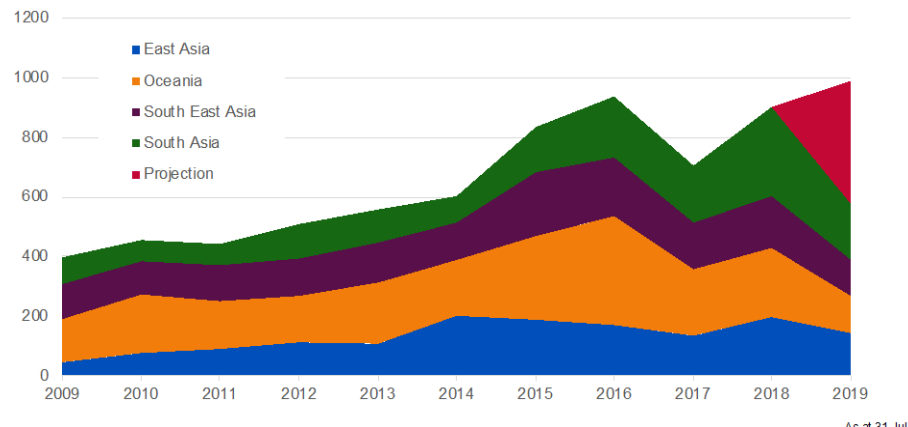
APNIC
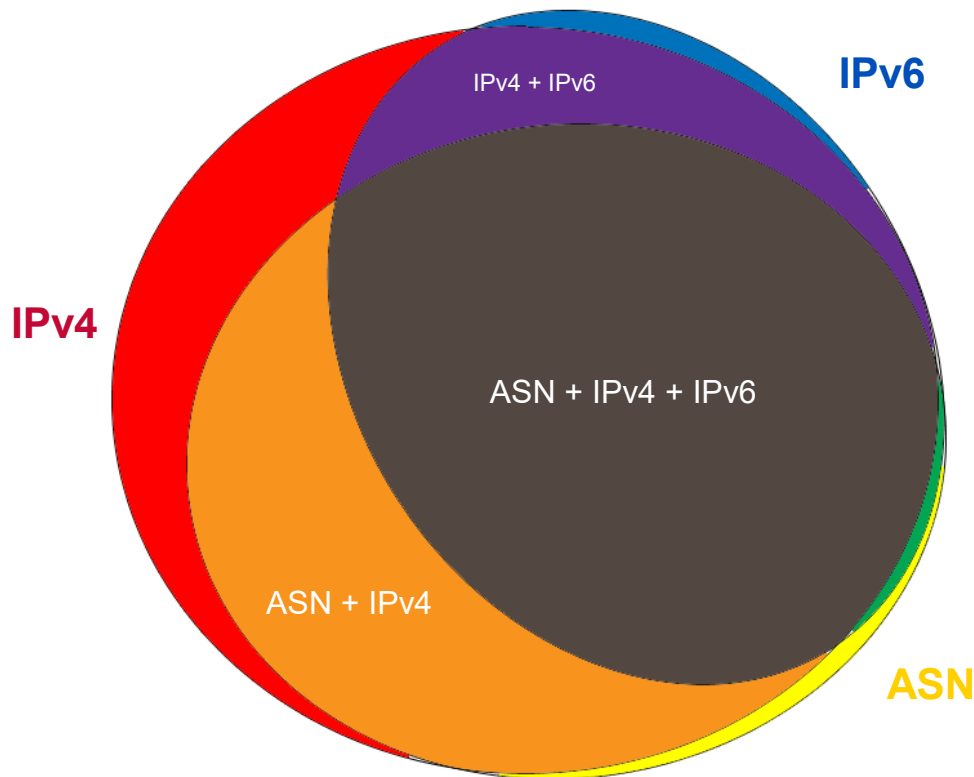
Resource Holdings

Member resource holdings	
ASN	77%
IPv4	96%
IPv6	63%

As at 31 Jul

MyAPNIC

apnic.net/myapnic

- IRT and Contact validation integrated
  - 'abuse-c' mirroring of IRT objects complete
  - Phase 2 will expand to IRT objects linked to customer assignments
- Improvements and bug fixes on RPKI, DNSSEC, Resource transfers, NIR, and Whois management features
- Coming soon
  - SSO for my.apnic.net

RPKI

- Supporting NIRs with active RPKI deployment
- 'Validation Reconsidered'
  - Published as RFC 8360
- Resource Tagged Attestation
  - Deployed in MyAPNIC as hosted service
  - Submitted IETF draft
- Five routing security workshops/tutorials in 2019
- Focus at NOGs and APNIC 48

apnic.net/rpki

Measure	31/12/2018	To date	Δ
Members with certs	21.9%	24.8%	**2.9%**
Members with ROAs	11.3%	16.1%	**4.8%**
IPv4 under ROAs	6.1%	7.4%	**1.3%**
IPv6 under ROAs	5.6%	8.6%	**3%**

READY TO ROA

RDAP

- Work continues on RDAP services for delegation through NIRs
  - NIR-hosted or APNIC-hosted options available
  - Submitted IETF draft on RDAP mirroring for NIR-hosted RDAP services
  - Demonstrated running code for server and client

- Work continues with other RIRs on profiles for RDAP data to improve consistency

- Collaboration with RDAP developers worldwide on the standards process, focussing on the internationalization and mirroring activity

Resource Quality Check (RQC)

- Formerly known as Resource Quality Assurance (RQA)
  - Automated mechanisms to identify operational issues related to specific address blocks such as route filtering, email and other blacklisting, routing history, and geolocation errors — for use during address resource reclamation and transfer processes

- Webpage updated

- Integration with other tools
  - RQC section created in APNIC NetOX (Network Operators Toolbox)
  - Whowas widget under development

Reclaiming unused IPv4

- Responding to the strong support shown at APNIC Survey 2018

- Identify the holders of:
  - Unrouted current resources
  - Unrouted historical resources
  - Unrouted resources under NIR accounts

- Contact these holders (starting Q3) to encourage return/transfer of unused resources
  - Definition of 'unused': A /24 or more of a delegated IPv4 prefix that is no longer needed

- Listing service of unused IPv4 (supply) in MyAPNIC being planned to complement the pre-approval (demand) listing service

Service Partner Trial

- Three so far:
  - NEPALREN (one Member referred)
  - MyNOG (no Member referred so far)
  - PCTA (six Members referred)

- Interest expressed from existing Members:
  - JBIX (Malaysia)
  - LANIC (Lao PDR)
  - National Communications Authority (Timor Leste)

Technical Infrastructure

Service	Update
Data centres and interconnections	Testing new interconnection with Singapore provided by PCCW Global and Megaport
Maintenance	Working toward gaining non-profit status with TechSoup for better organization discounts; consolidating individual licensing to group licensing for staff
Information architecture	Following Data Vault 2.0 industry standard for business intelligence architecture; internal data governance group established
Business applications	Okta managing authentication for all primary internal business applications; new Salesforce registration system launched for APNIC 48
Virtualization and cloud	Refreshing on-premise virtualization server hosts; upgrading system software upgrades
Software process improvements	Gitlab CI/CD pipelines set up for 10 of APNIC's current software projects
APNIC-CSIRT	Updated incident handling draft finalized for ISMS ISO27001; new NRO Public Safety coordination group established

APNIC

Information Products
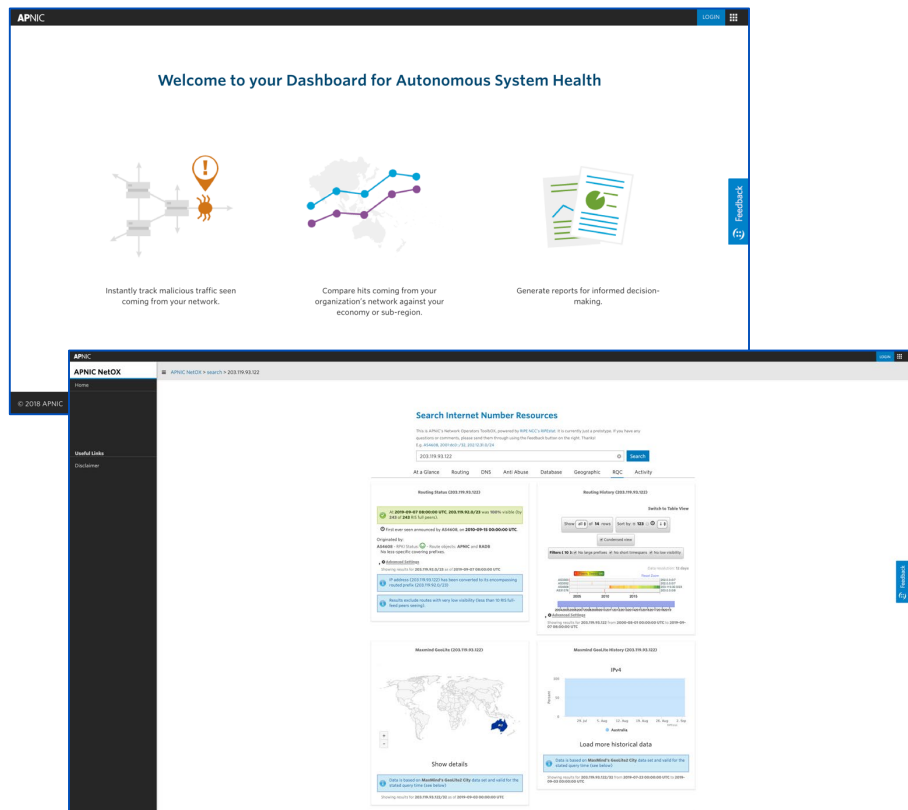
- Internet Directory update
  - Economy comparisons
  - IPv6 Capability
  - VizAS
- DASH – Dashboard for AS Health
  - Authentication via APNIC SSO
  - Validation and testing
  - Soft launch at APNIC 48 and interviews
- NetOX – a la RIPEstat
  - Including RQC functions
  - User Interviews at APNIC 48

Internet Directory
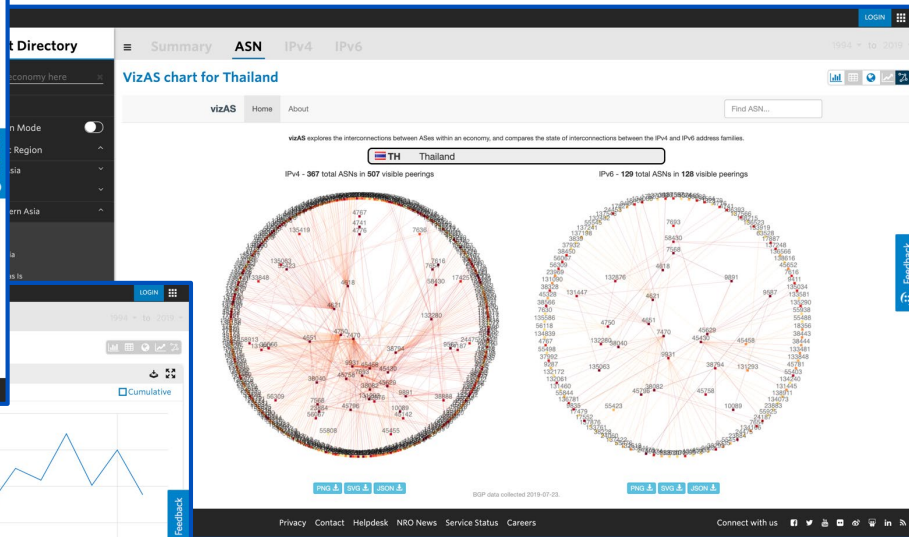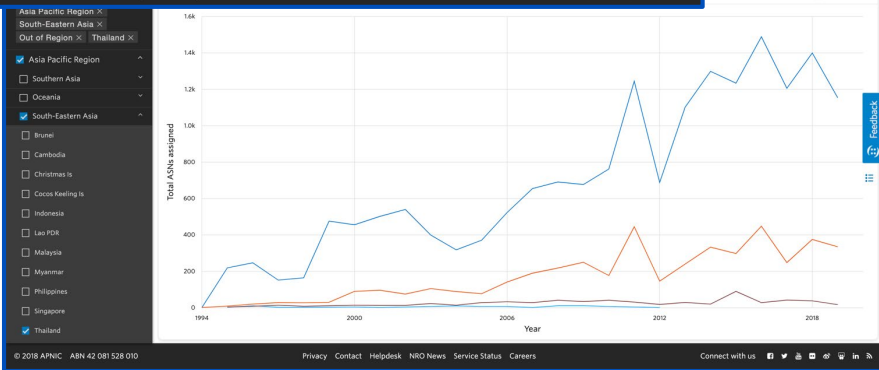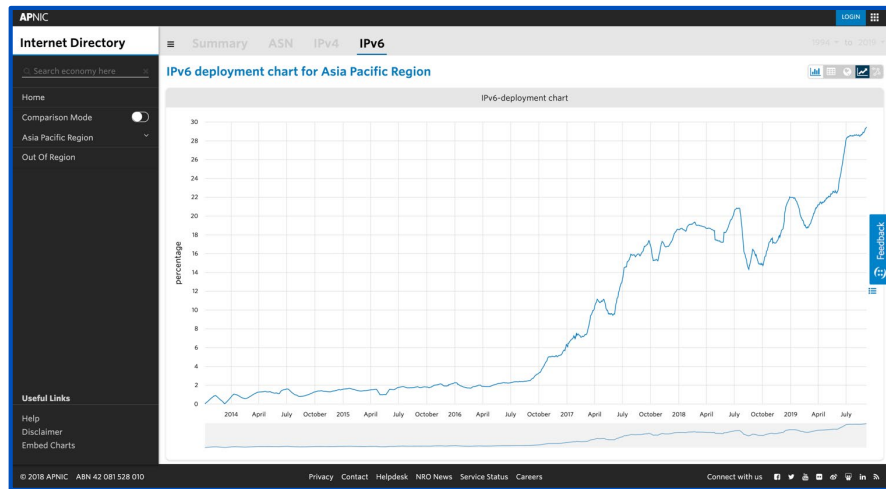
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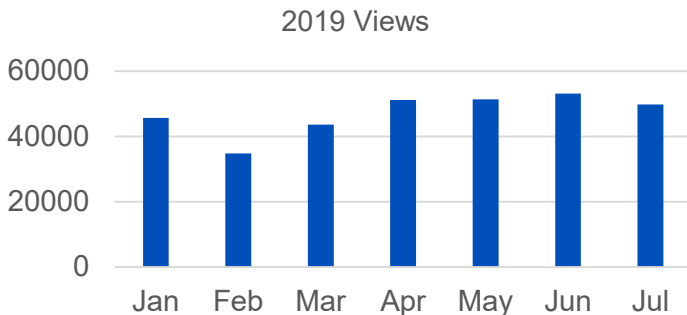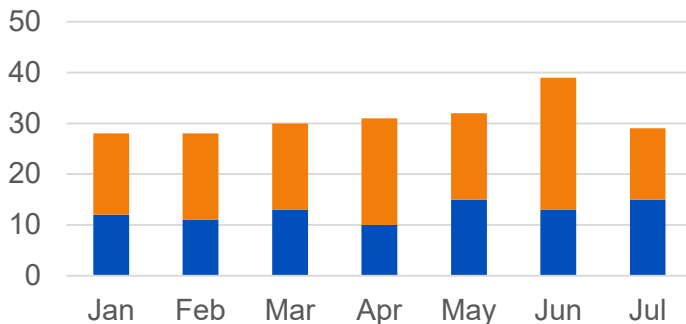
Training

Trainees at PacNOG 2018

IPv6 workshop, Beijing

	2019 to date
Face-to-face training	39
Economies	20
Trainees	1,065
Community Trainers	19
APNIC Academy Users	2,263
Economies	35
Virtual Labs	848
Course completions	409
YouTube Training views	25,263

APNIC Academy

Free, 24/7 Available

17+ online courses

- New webinar platform
  - 5 webinars, 451 participants
- Access to "eduroam"
  - APNIC Members only

- Launching at APNIC 48:
  - IPv6 Fundamentals (5 modules)
  - Support for 8 languages

academy.apnic.net

APNIC Conferences

APRICOT 2019
APNIC 47

APNIC 48

APRICOT 2019

- APNIC 47 / APRICOT 2019
  - 714 attendees from 57 economies
  - IPv6 Hackathon
    - 16 participants (4 female and 12 male)
  - GFCE Triple-I meeting, FIRST TC, APCERT, DotAsia, APIX

- APNIC 48
  - ~600 registrations
  - 52 Fellows from 20 economies
    - 27 Professional, 21 Youth, 4 Returning
    - 50% gender split
  - Security and RPKI focus
  - NextGen Careers BoF

conference.apnic.net

APNIC

Policy Implementations

Policy	Status
prop-125: Validation of "abuse-mailbox" and other IRT emails	Reached consensus at APNIC 46 Implemented August 2019
prop-127: Change maximum delegation size of 103/8 IPv4 address pool to a /23	Reached consensus at APNIC 47 Implemented April 2019
prop-128: Multihoming not required for ASN	Reached consensus at APNIC 47 Implemented April 2019
prop-129: Abolish waiting list for unmet IPv4 requests	Reached consensus at APNIC 47 Implemented July 2019

Technical Community

- **NOGs**: Participated in 16 regional NOGs in 2019 (to date)
- **Root servers**: F-root in FJ relocated to IXP; K-root at BTIX
- **R&E**: trainings at APAN 47, 48 with GEANT (TRANSIT-1)
  - Jamie Gillespie is Co-Chair for APAN Security Working Group
  - Continued work with R&E community on training content
  - Supported by funding from Asi@Connect

IDNOG 6

IPv6

IPv6 Deployment workshop, Kolkata
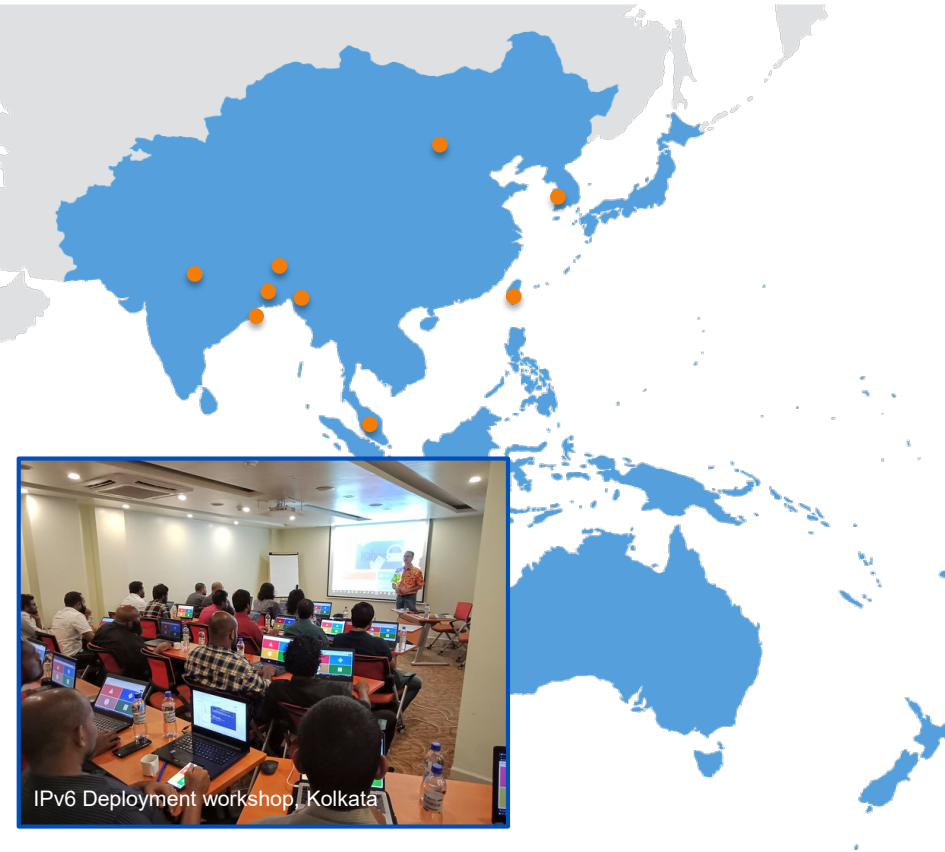
- IPv6 Training
  - 9 face-to-face, 219 trainees
  - New Academy course
- 40 blog posts (to date)
  - IPv6 Week promotion
  - 3 new success stories (29 total)
- IPv6 deployment sessions at APNIC conferences
- APNIC Members holding IPv6 resources 63.05%
- Regional IPv6 capability now 28.61% (APNIC Labs)

NOG and Membership Outreach

South Asia	South-East Asia	East Asia	Oceania
SANOG 33 $_{spc}$	PhNOG 2019 $_{sp}$	JANOG 43 $_{s}$	NZNOG 2019 $_{p}$
bdNOG 10 $_{spc}$	ThaiNOG 2 $_{sp}$	HKNOG 7.0 $_{sp}$	PacNOG 24 $_{s}$
btNOG 6 $_{spc}$	KHNOG $_{c}$	TWNOG 3.0 $_{spc}$	
INNOG 2 $_{spc}$	MMNOG $_{c}$	JANOG 44 $_{sp}$	
SANOG 34 $_{spc}$	MYNOG 8 $_{spc}$	TWNOG $_{c}$	
	IDNOG 6 $_{spc}$		
	SGNOG 7 $_{sp}$		
	PhNOG (July) $_{pc}$		
	IDNOG 6 $_{pc}$		
	PCTA Convention 2019		
ConnecTechAsia 2019			

- NOG sponsorship (s), presentations (p) and programme committee (c) contributions during 2019 so far
- New and re-formed NOGs: mmNOG , khNOG, LaoNOG

Security

Adli Wahid

Jamie Gillespie

apnic.net/security

- 15 security engagements including conference presentations and training workshops

  - 8 face-to-face security training sessions

  - CERTs: LaoCERT, CamCERT; APCERT at APRICOT 2019; APISC Annual CERT Workshop; CERT Tonga

  - LEA workshops: Regional Prosecutors Training, ISCR 2019, Cyber Pasifika workshop, Hong Kong Police, Interpol

- FIRST security track at APRICOT 2019 and APNIC 48

- APNIC Community Honeynet project expanded with partners in Bhutan, Bangladesh, Malaysia, Samoa, Tonga and Indonesia

- 65 security-related blog posts (to date)

CERT/CSIRTs

- FIRST Security track at APRICOT 2019

- Provided trainers for:
  – TRANSITS-I workshops at APAN 47 and APAN 48
  – APISC Annual CERT workshop

- Regional CSIRT workshop in Samoa
  – 35 delegates from 9 Pacific economies (APNIC Foundation project)

- Community Honeynet Project partner expansion
  – Bhutan, Bangladesh, Malaysia, Samoa, Tonga and Indonesia

APNIC

Community Participation

Policy
- Presentations at six NOGs in 2019
- Pre-meeting webinars (738 views)
- Translation of summaries and outcomes
- Newcomers' sessions with mock Policy SIG

Conferences
- Promotions, blogs, social media
- Translated materials
- Online advertising
- Newcomers outreach to universities
- Youth fellowships
- Student pricing revised
- Next Gen Careers BoF

Sponsorship
- Seven community sponsorships

apnic.net/policy

APNIC 46 Policy SIG

Participate in APNIC Policy

▼ YOU   ▶ COMMUNITY   ▶ RESULTS

YOUR VOICE COUNTS
- Everyone can participate – not just your boss
- It doesn't matter how much experience you have
- It's a great way to build your profile and contribute to the Internet
- You can directly impact the way APNIC manages Internet numbers

Get involved in policy discussion!

The first step is to subscribe to the mailing list

SUBSCRIBE NOW!

Government and IGOs

- ASEAN Regional Cyber Norms Workshop (Jun)

- APT-WTSA20-1 (Jun), first preparatory meeting for 2020 ITU World Telecommunications Standardization Assembly

- ITU, Global Symposium for Regulators 2019 (Jul) in Vanuatu

ASEAN, Cybernorms workshop

APT, WTSA prep meeting

ITU, GSR in Vanuatu

Internet Governance

- VanIGF and Pacific ICT Days (May)
  - First local IGF event in Vanuatu

- APrIGF 2019 (Jul) in Vladivostok

- Paul Wilson nominated for the IGF Chair position

- Sylvia Cadena was reappointed to IGF MAG and Rajesh Chharia was appointed as a new member

APNIC Foundation

'To have a global, open, stable and secure Internet that is affordable and accessible to the entire Asia Pacific community'

apnic.foundation

- Purpose: To increase APNIC Development activities
  - Without relying on Member funds
  - Effectively, as a 'fundraising arm' of APNIC
- Two staff, seconded from APNIC
  - Duncan Macintosh, Sylvia Cadena
- Five board members: Edward Tian (CN), Sharad Sanghi (IN), Sylvia Sumarlin (ID), Michael Malone (AU), Danish Lakhani (PK)
- First AGM and Board meeting May 2018; Sylvia Sumarlin elected Chair; second AGM held in May 2019; Sylvia Sumarlin elected as Chair for second and final term
- Over USD 1M in funding signed to date
- Approval of 2018 financial statements

Foundation Activities

- Work continued on the four Pacific projects:
  - Technical training, support for PNG Internet community, PNGCERT, and CERTs/CSIRTs, LEAs in the Pacific

- Community consultations for PNG training project and first workshop in July (16 engagements to date)
  - Additional funding of AUD 140k confirmed

- Successfully held third and final regional workshop for Pacific CERT project with AUD 21k additional funding

- Final workshop in Pacific LEA project completed

- APNIC contribution USD 100,000 to 5 ISIF Grants

APNIC Labs

Global IPv6 capability

Geoff Huston
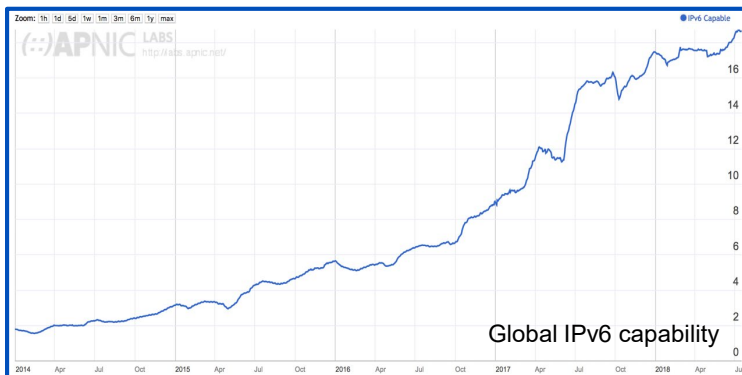
- 18 presentations at RIRs, NOGs, IETF, technical conferences
- 16 research blog posts to date
- Research Projects
  - DNS resolver concentration
  - DNS research with ICANN
  - Ongoing work with ICANN SSAC and RSSAC
  - DNSSEC and NSEC caching
  - Open resolver (1.1.1.1)
  - ITHI DNS measurement
  - BGP update analyser

  labs.apnic.net

Global Engagement
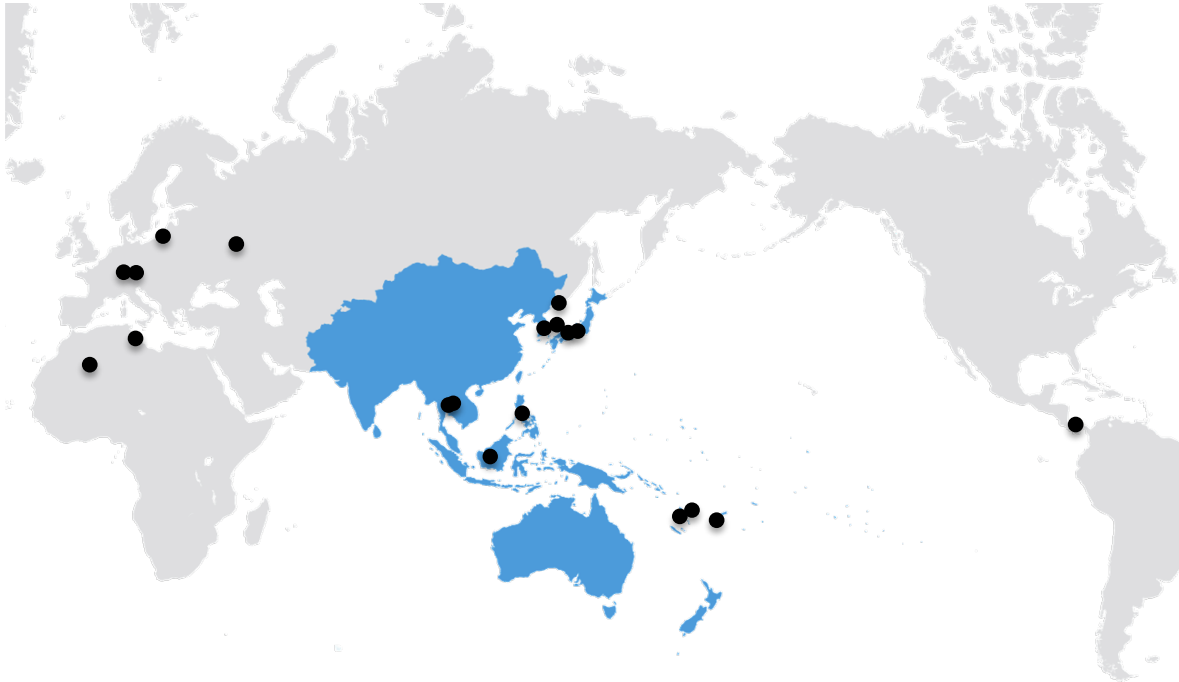
- ICANN APAC TWNIC Forum; ICANN 64, 65; DNS OARC; DNS Symposium, RightsCon Tunis

- IETF 104, 105

- PAM 2019

- GSR 2019

- PITA 23rd AGM and Conference

- IGF MAG, ITU-WSIS Forum 2019, APT WTSA20-1

- GFCE

External Engagement Summary

Sum of Count

134

APNIC	Member Outreach
CERT Engagement	Membership Development
Coordination	NOG
Development	Other
Foundation Engagement	Security
Foundation Projects	Technical
Government	Technical Assistance
Internet Governance	Training

Engagement summary by type

Events vs Engagements
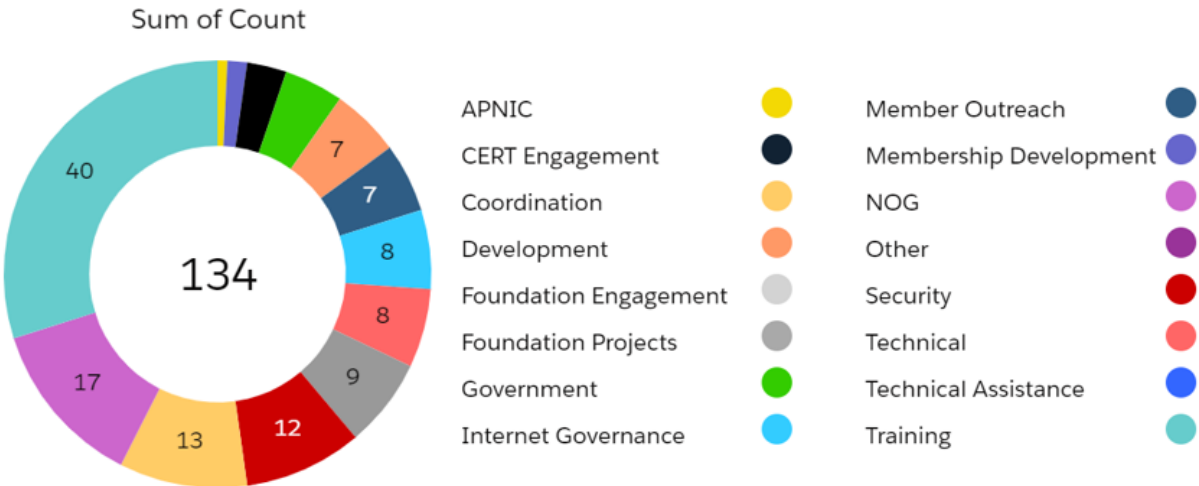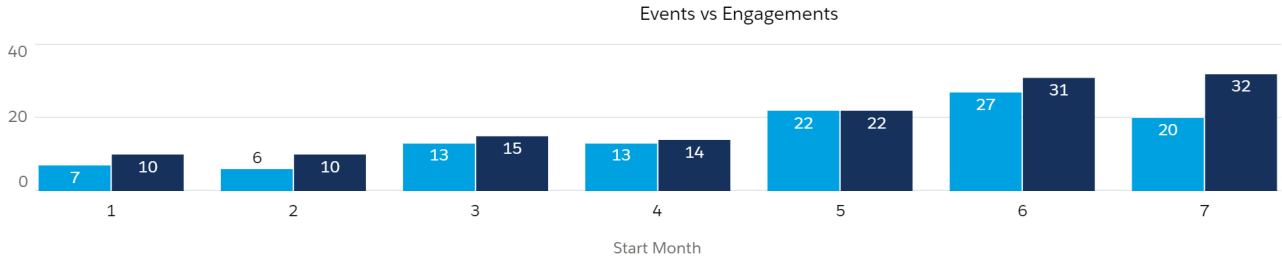
Engagement summary by month

RIR Collaboration
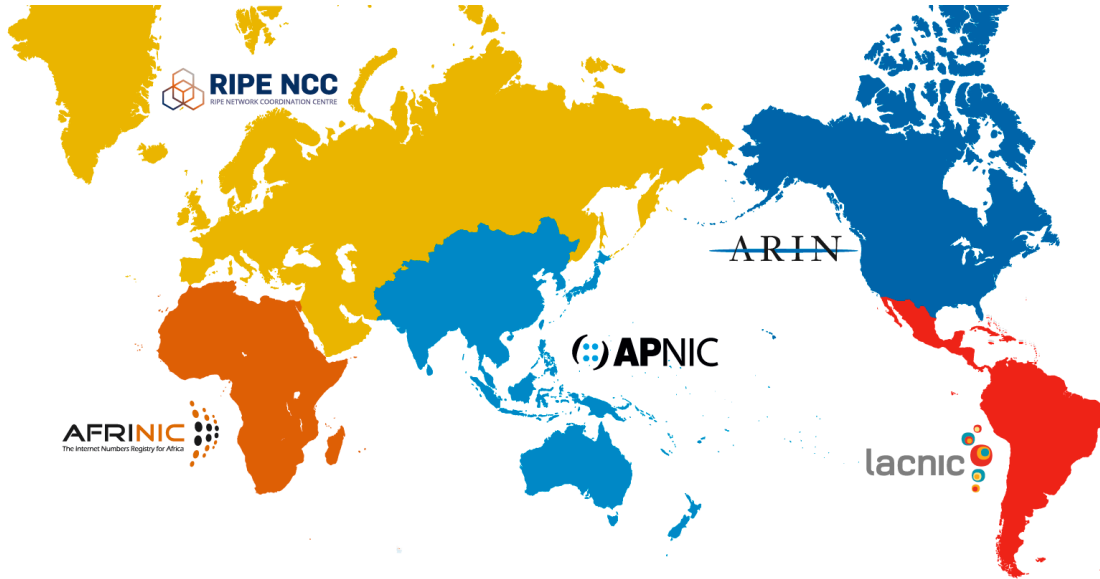
- Two staff exchanges (RIPE NCC and LACNIC)

- RIR policy managers meeting and LACNIC visit

- New NRO Public Safety Coordination Group

- RIR work on RDAP consistency

- Participation at all RIR meetings and NRO coordination group meetings

Product Management

- Product management methodology enables member needs to be validated and iterated in an agile framework with a focus on continuous improvement for the development of products and services

- Three cross-functional product teams established with addition of UX specialists
  - Registry
  - Membership
  - Information Services

- Three support teams formalised
  - Web development
  - Platform
  - Devops

- Training provided on Product Management and Agile principles organisation-wide, with ongoing coaching
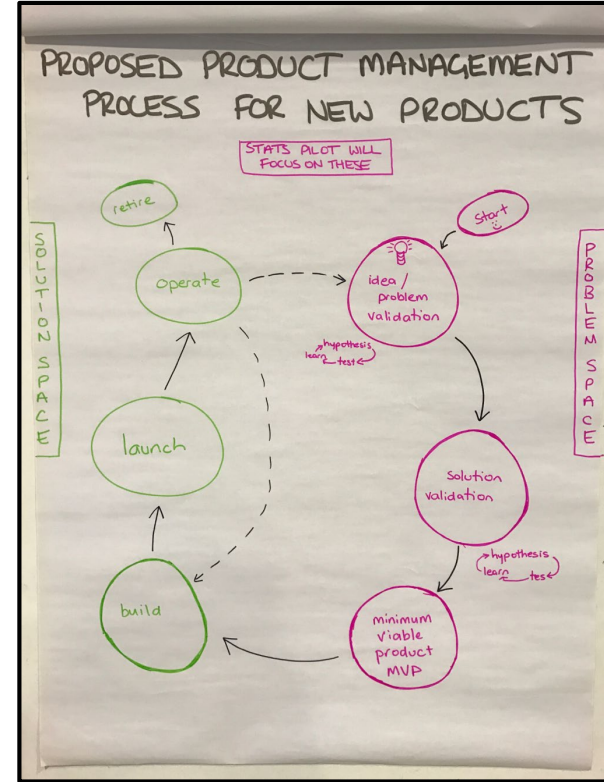
Behind the scenes

- Full recertification (three-yearly) audit of ISO9001 quality management system in August

- New internal systems
  - Expensify for expense management
  - New event registration implemented in Salesforce
  - Egencia for self-service travel booking system
  - Elmo for Human Resource management

- Internal integration and SSO with 2FA for SharePoint, NetSuite, Nexonia, Halogen, Salesforce, Zoom, and many others

- Trial of Western Union as a payment option for Membership fees

- Extended new staff onboarding process, to include extended workforce such as community trainers and interns
  - Concise version of the staff policy handbook
  - Online training for compliance and professional development

Thanks!

APNIC Secretariat Report

To 31 July 2019

CONFIDENTIAL DRAFT 1.1

Contents

Figures

Tables

Executive Summary

Introduction

This report is provided to the APNIC Executive Council (EC) for the quarterly face-to-face meeting in Chiang Mai, Thailand, on 9 September 2019. **It provides a summary of activities from Q1, Q2 and Q3 up to 31 July 2019**.

This summary provides a list of significant highlights in this reporting period.

Serving members

- APNIC **Service Metrics** continue to show high satisfaction and SLA results (1.1.1).

- With implementation of **policy proposal prop-129** (Abolish waiting list for unmet IPv4 requests) the waiting list for recycled IPv4 space was removed (1.1.1).

- 19.62% of the **last /8** (103/8) remains, as at the date of this report (1.1.1).

- APNIC is working extensively with NIRs on consistency of registry records, and to support implementation of **RDAP** (1.1.2) and **RPKI** (1.1.4).

- RPKI **Resource Tagged Attestation** (RTA) service is now deployed in MyAPNIC, and work continues on RTA specification draft at IETF (1.1.4).

- **Resource Quality Check** (RQC, formerly RQA), added to **NetOX** (Network Operators Toolbox) (1.1.5).

- Specification of **RDAP mirroring** standard as IETF draft, to support synchronisation of RDAP services (e.g. between APNIC and NIRs), and prototype implementation completed (1.1.7).

- **APNIC Blog** has averaged 47,035 views per month in 2019, a 17% increase on 2018's monthly average of 40,064 (1.2.4).

- **Service Partners**, NEPALREN and PCTA, have started referring Members. Expressions of Interest were received from LANIC, JBIX and TL National Communications Authority (1.2.8).

- Continuing improvement to **software product development** environment, including virtualisation and CI/CD (Continuous Integration/Continuous Deployment) pipelines (1.3.5 and 1.3.6).

- Strengthening of (internal) **APNIC CSIRT**, and inter-RIR security coordination (1.3.7).

- **Face-to-face training** provided to 1,065 trainees in 39 courses, for a total of 2,848 trainee-days (1.4.1).

- Contracted 19 **Community Trainers** so far in 2019, with recruitment ongoing (1.4.2).

- **APNIC Academy** Webinars were deployed, with five webinars and 451 participants. Also deployed Multilingual support, and IPv6 Fundamentals course, for launch at APNIC 48 (1.4.4).

Regional Development

- The **APNIC 48** program will include a dedicated security track and several dedicated RPKI sessions. 52 Fellows have been confirmed, including 50% female fellows (2.1.1).

- Dhaka, Bangladesh, was announced as the location of **APNIC 50** following a site visit to Dhaka. ISPAB is the confirmed host (2.1.1).

- The EC endorsed the adoption of **policy proposals prop-127, 128 and 129** on 9 April 2019. Prop-127 was implemented immediately. Five proposals will be discussed at APNIC 48 (2.2.1).

- **K-root server** instance deployed in Thimphu, Bhutan; another K-Root now scheduled at MMIX, and F-root at USP Fiji / Fiji-IX (2.2.2).

- **RPKI** will be a focus at APNIC 48, with two dedicated RPKI conference sessions, an RPKI keynote presentation, one-day RPKI Deployathon, RPKI and ROA Signing BoFs (2.2.3).

- APNIC conducted nine **IPv6** deployment workshops to date (2.2.4). Also provided IPv6 technical assistance for Bhutan Telecom and Tonga Cable.

- APNIC supported 19 **NOG events** in 2019 so far, with sponsorship, presentations, and/or programs support; also supporting start/restart of 3 other NOGs (2.2.5).

- Adli Wahid retired from the **FIRST** Board after five years of service but remains engaged in FIRST community outreach and development. Jamie Gillespie appointed Co-Chair of the **APAN Security Working Group** at APAN 47 (2.2.6).

- The **DASH** network security product., including **Community Honeynet** data (2.2.7), will undergo user experience testing at APNIC 48 in preparation for a soft launch (2.2.8).

- A new version of the **Internet Directory** was launched. APNIC **NetOX**, the APNIC version of RIPEstat, was developed with support from RIPE NCC (2.2.9 and 3.1.1).

Global Cooperation

- APNIC participated in all RIR meetings so far in 2019, and assigned staff to join NRO **Incident Response Team** and **Public Safety Coordination Group**. APNIC hosted 2 RIR staff exchange visits, from RIPE NCC and LACNIC (3.1.1).

- **APNIC Labs** continued contracted work with ICANN on DNS resolution, DNSSEC, and DNS measurement; and with RSSAC and RSSAC (3.3.1).

- **Geoff Huston** made 18 different research presentations at international events in 2019 (3.3.1).

- APNIC took part in 134 engagements between January and July (Appendix A).

Corporate

- Internal **Single-Sign-On** (SSO) with 2-Factor Authentication (2FA) is now deployed for all important business systems (1.3.4).

- Integrated **data architecture** for business analysis and reporting, using Data Vault 2.0 standard, will enable improved metrics for 2019 Annual report (1.3.3).

- Continued implementation of an operational **Product Management** framework, with 3 cross-functional product teams taking responsibility for Membership, Registry and Information products (4.1.2).

- **New payment facilities** established via Western Union, allowing local currency payment in 16 economies (4.2.4).

- Minor **office renovations** and improvements were made to the Brisbane premises (4.4.1).

1 Serving Members

1.1 Registration Services

1.1.1 IPv4, IPv6 and ASN delegation and registration services

Resource pool summary

The following table shows the status of all APNIC number resource pools in the current reporting period.

	Total 1/1/2019	From IANA	Transfers in	Transfers out	Total 31/7/2019	Total allocated	Total free
IPv4 (/24s)	3,471,856	2	5,612	333	3,477,137	3,452,140 99.28%	24,997 0.72%
IPv6 (/48 millions)	69,926	0	n/a	n/a	69,926	5,264 7.53%	64,662 92.47%
ASNs	17,045	2,048	0	0	19,093	16,197 84.83%	2,896 15.17%

Table 1: Internet number resource summary

IPv4, IPv6 and ASN delegations

The following table and graphs show the number of delegations for each resource type, and the distribution of delegations by sub-region.

Resource	Q1	Q2	Q3*
IPv4 (103/8)	503	417	166
IPv4 (recycled)	27	110	0
IPv6	365	319	131
ASNs	443	347	202

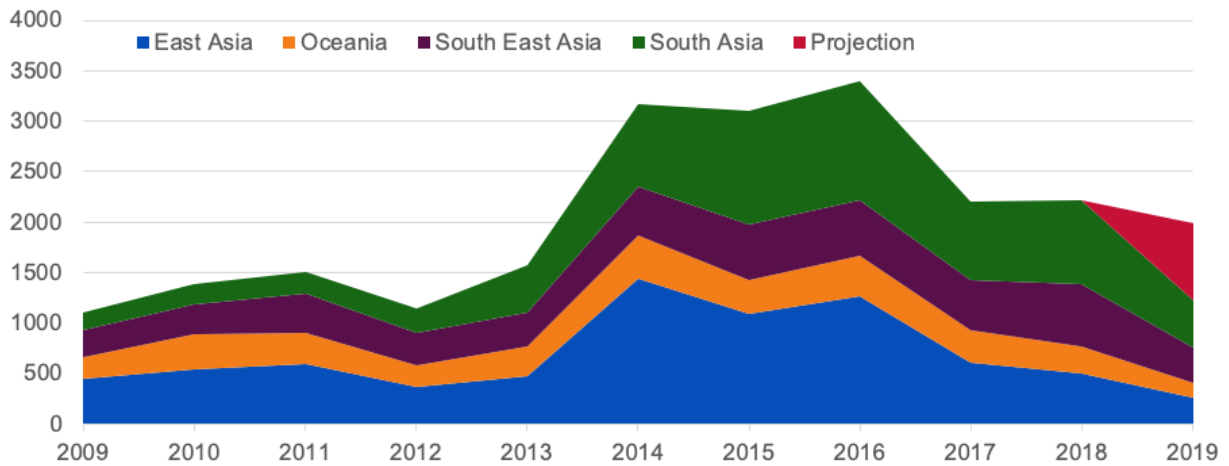**Table 2: Internet number resource delegations**

Figure 1: IPv4 delegations
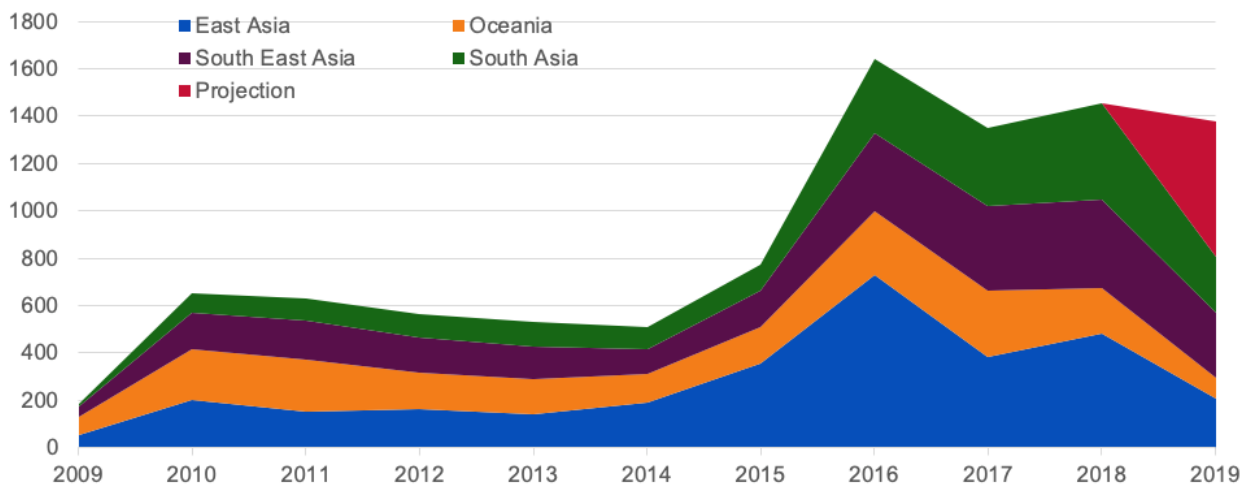
Figure 2: IPv6 delegations
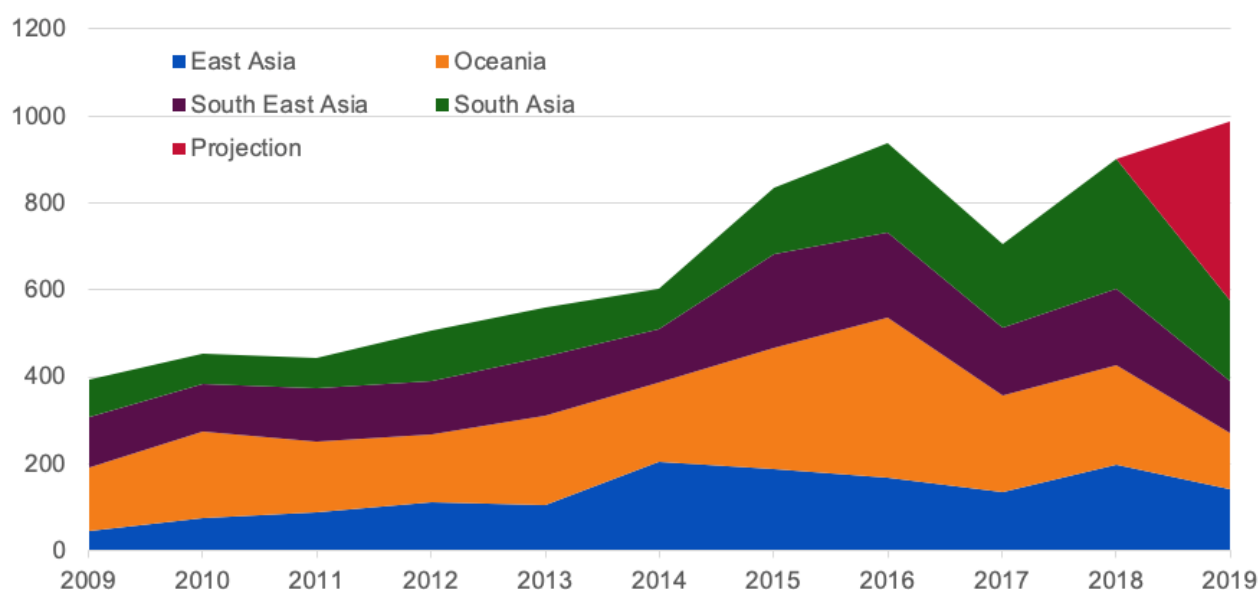
Figure 3: ASN delegations

Member resource holdings

The proportion of APNIC Members holding specific resource types is as follows.

Resource type	Q1	Q2	Q3*
IPv4 (103/8)	75.84%	76.64%	76.97%
IPv4 (recycled)	22.31%	22.58%	22.37%
IPv6	62.16%	62.77%	63.05%
ASNs	76.67%	77.13%	77.30%

Table 3: Member resource type holdings

Status of last /8 (103/8)

The following table shows the number of delegations and the remaining space available in the last /8 (103/8).

Resources	Q1	Q2	Q3*
Delegations from 103/8 (/24s)	1,413	770	293
Remaining 103/8	21.24%	20.07%	19.62%

Table 4: Status of the last /8

Status of IPv4 recycled pool

Resources	Q1	Q2	Q3*
Delegations from recycled space (/24s)	102	413	0
Remaining recycled pool (/24s)	3	0	0

Table 5: Status of IPv4 recycled pool

Waiting list for IPv4 recycled space

On 2 July 2019, policy proposal prop-129: Abolish Waiting list for unmet IPv4 requests was implemented. The waiting list for IPv4 recycled space has been removed.

In preparation for the policy implementation, APNIC ensured all available recycled space was delegated to the waiting list. This explains the higher delegation count for the recycled pool in Q2.

IPv4 transfers and returns

APNIC resource transfers result from mergers/acquisitions or market transactions. Market transfers may happen within the APNIC region, or to and from other RIRs (ARIN or RIPE NCC only).

Type	#	Q1	#	Q2	#	Q3*
M&A total	24	921	45	1,258	15	2,804
Market						
▪ **Intra-RIR**	77	2,025	48	946	23	1,214
▪ **Inter-RIR**	22	1,702	25	3,984	9	259
Market total	99	3,727	73	4,930	32	1,473

Table 6: IPv4 transfers (/24)

RPKI

Usage of RPKI services has increased during this reporting period, as follows:

RPKI usage	Start of period	End of period
Members with RPKI certificates	21.92%	24.84%
Members with ROAs	11.34%	16.15%
IPv4 under ROAs	6.07%	7.48%
IPv6 under ROAs	5.57%	8.61%

Table 7: RPKI usage

1.1.2 Registry operation and maintenance

Work continues with NIRs to achieve full consistency of registry records, to improve synchronisation of records between APNIC and NIRs, and to support implementation of RDAP.

- Consistency checks in registry records with KRNIC have been completed.

- Checks with JPNIC and TWNIC have started, and planning has begun for work with the other NIRs.

- Discussions will continue with each NIR at APNIC 48.

- An API specification, supporting automation of resource delegation and sub-account management was shared with the NIRs, and a testbed released in June. Initial tests have been discussed with TWNIC and JPNIC.

Projects

1.1.3 Whois IRT accuracy

Policy prop-125 requires all resource holders to maintain accurate and responsive IRT (Incident Response Team) contacts in the whois database, and APNIC to validate Member compliance with this policy every six months.

Status:

- The first batch of IRT validation emails will be sent on 5 August 2019 and subsequent batches will be sent weekly. This is linked to the other contacts verification process, which is initiated 15 days before the IRT validation emails.

- Phase II will expand validation requirements to cover IRT objects linked to customer assignments before the end of 2019.

- The 'abuse-c' mirroring of IRT objects in the APNIC Whois Database is complete and awaiting deployment pending further internal review on potential cascading effects to NIRs.

1.1.4   RPKI development

This is a project to improve RPKI services and identify opportunities for new services.

Status:

- The Resource Tagged Attestation (RTA) pilot was demonstrated at IETF; and is now in deployment in MyAPNIC as a hosted service. Work continues on standards specification; the draft was proposed for IETF adoption at IETF 105 in Montreal.

- Continuing to support three NIRs that run their own RPKI services and assist with operational stability. A fourth NIR (IDNIC) is in a pre-deployment testing phase.

- Draft on deployment of 'validation reconsidered' was presented at IETF but is unlikely to secure adoption. A call for adoption was requested.

- Distinction between RPKI platform (certification of resources given to a holder) and RPKI applications (Resource Origin Validation, Resource Tagged Attestation etc.) was made clearer in APNIC training and presentation material.

- Requests for validation and relying party services are being assessed by the product development team.

1.1.5   Resource Quality Check (RQC, formerly RQA)

Development of automated mechanisms to identify operational issues related to specific address blocks such as route filtering, email and other blacklisting, routing history, and geolocation errors — for use during address resource reclamation and transfer processes.

Status:

- Project renamed Resource Quality Check (RQC) to avoid generating false expectations and legal liability.

- RQC section was created in NetOX (https://netox.apnic.net/) including widgets that help assess resource quality.

- Disclaimer documentation drafted.

1.1.6   Reclaiming unused IPv4 address space

The 2018 APNIC Survey requested attention to the reclamation of unused IPv4 space in the APNIC region. This project will develop definitions, approaches and mechanisms for this process.

Status:

- Established specifications and definitions with Services Team, Membership Product Manager and APNIC's General Counsel, including definition of "unused" IPv4 space as 'A /24 or more of a delegated IPv4 prefix that is no longer needed'.

- Obtained statistics of unrouted IPv4 address based on RIPE NCC RIS and categorized them as:

  - Delegated less than 5 years ago from 103/8 pool

  - Delegated over 5 years ago from 103/8 pool or from non-103/8 pool

- Unrouted historical resources
- Unrouted IPv4 addresses under NIR accounts

- Emails to contact holders of unrouted IPv4 addresses have been prepared and will be sent in Q3 to encourage the transfer/return of address space if no longer needed.

- Developed draft specifications for listing service of unused IPv4 in MyAPNIC, with an MVP to be built by Q4.

1.1.7 RDAP development

This is a project to further develop APNIC's RDAP service in 2019-2020.

Status:

- Work continues to deploy RDAP service for NIR delegations, derived from NIR whois as the preferred source. The NIR source is clearly identified and the model is extensible as NIR add RDAP services self-hosted, or provide us with better data. The model aligns WHOIS and RDAP responses as closely as possible.

- Work began on a draft for the IETF on RDAP mirroring to permit NIR-hosted RDAP services to be coordinated effectively with APNIC. Demonstrator Server and Client code has been released. APNIC will continue to develop this system and promote it within the AP and worldwide for efficient RDAP mirroring.

- Work continues with other RIRs on profiles for RDAP data to improve consistency. A profile and conformance testing suite have been developed and the profile was discussed with the RIRs at IETF 105. APNIC will continue to promote RDAP consistency between the RIRs, and align with the ICANN RDAP usage in domain name space.

- The IETF REGEXT working group continues to discuss RDAP RFCs. APNIC collaborates with RDAP developers worldwide on the standards process, focussing on the internationalization and mirroring activity.

1.2 Customer Service

1.2.1 Member Services/Helpdesk/Billing

SLA for service requests
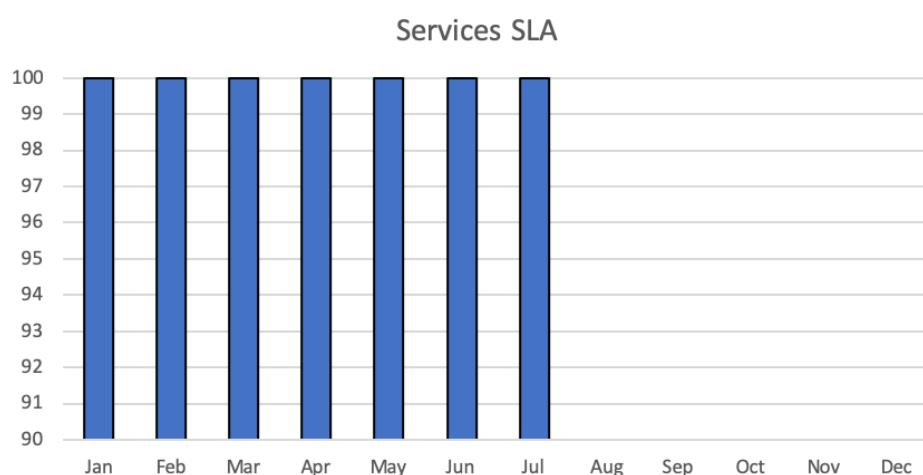
Figure 4: Services SLA

Service satisfaction ratings

Figure 5: Service satisfaction summary

Type	Q1	Q2	Q3*
New Members	210	63	82
Closed Members	51	26	30
Reactivated Members	6	1	0
Total Members	7,315	7,358	7,526

Table 8: Membership transactions
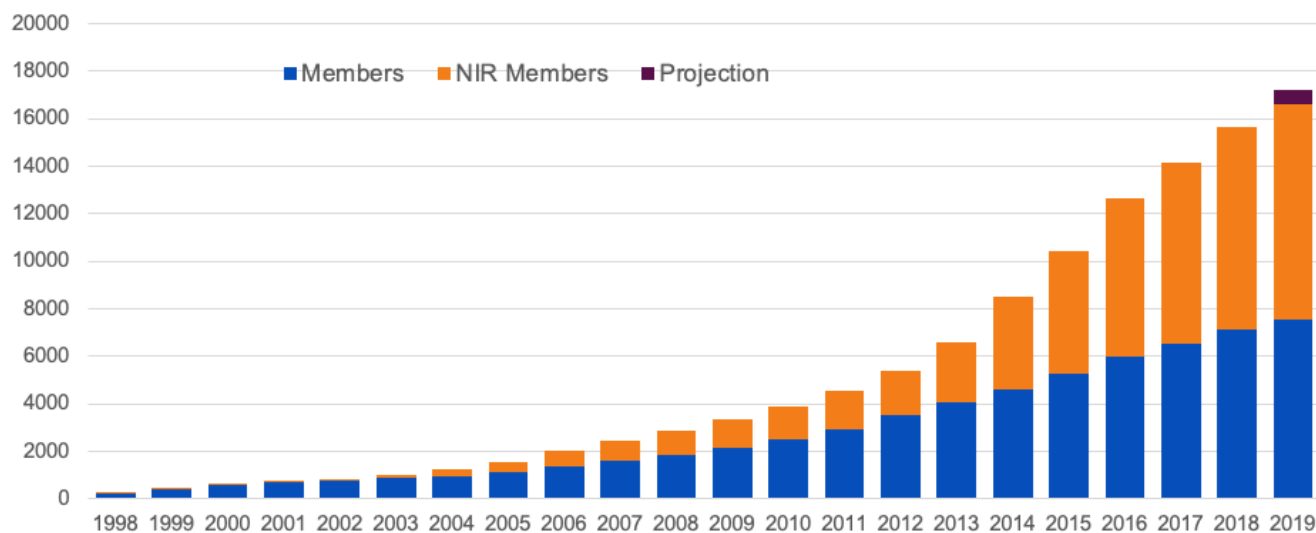
Figure 6: Membership growth
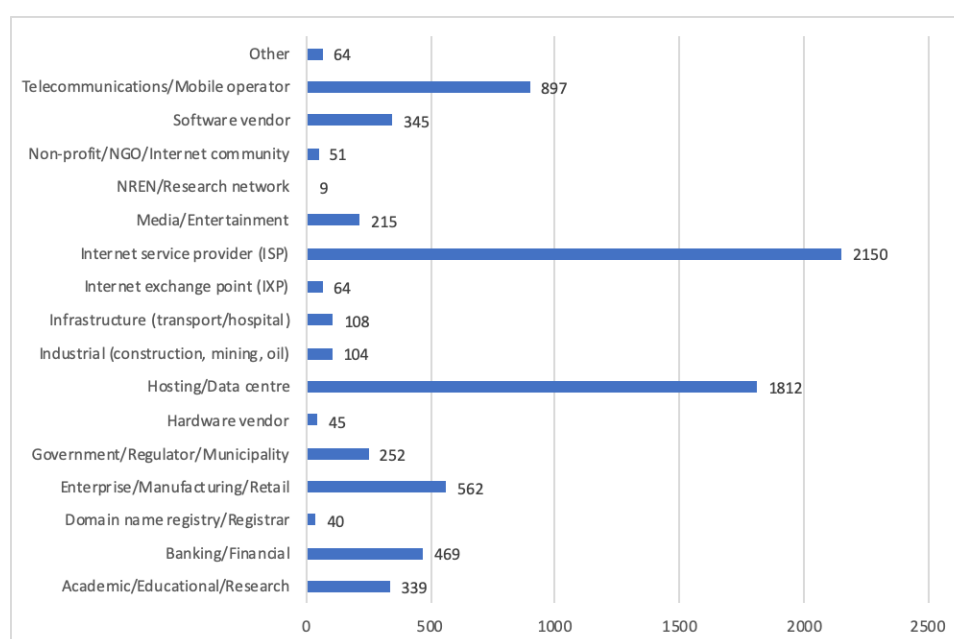
Figure 7: Membership industry type

Fraud attempts

Instances of fraudulent applications and requests are summarized as follows.

Type	Q1	Q2	Q3*
Identity theft	0	0	0
Fabricated documents	1	0	1
Fabricated needs	1	1	0
Total fraud attempts	0	1	1

Table 9: Fraud attempts

1.2.2   MyAPNIC development and maintenance

- The whois contacts verification process completed its first round and the second stage (reminder) is now integrated into the IRT Validation process (prop-125).

- Current development of MyAPNIC is focused on the deployment of an SSO-enabled version of the application with an improved user interface (see 1.2.3 Improving online experience).

- Released bug fixes and improvements on RPKI, DNSSEC, Resource transfers, NIR, and Whois object management features

1.2.3   Improving online experience

- Work on the 'RIPE Forum' to improve mailing-list user experience remains on hold, while alternatives are evaluated.

- Work to deploy the SSO-enabled MyAPNIC into a production environment for final testing began at the end of July. Following beta testing earlier in the year, further testing highlighted some small issues requiring improvement.

1.2.4   APNIC Blog

	Q1	Q2	Q3*	YTD	All time
Views	123,976	155,518	49,752	329,246	1,614,529
Posts	86	102	38	226	1,858

Table 10: APNIC Blog activity level

Figure 8: Monthly APNIC Blog views

Guest Posts   Event Wraps   APNIC Opinion   Average views per post

Figure 9: Monthly APNIC Blog post types

The APNIC Blog has averaged 47,035 views per month in 2019 to date, a 17% increase on 2018's monthly average of 40,064.
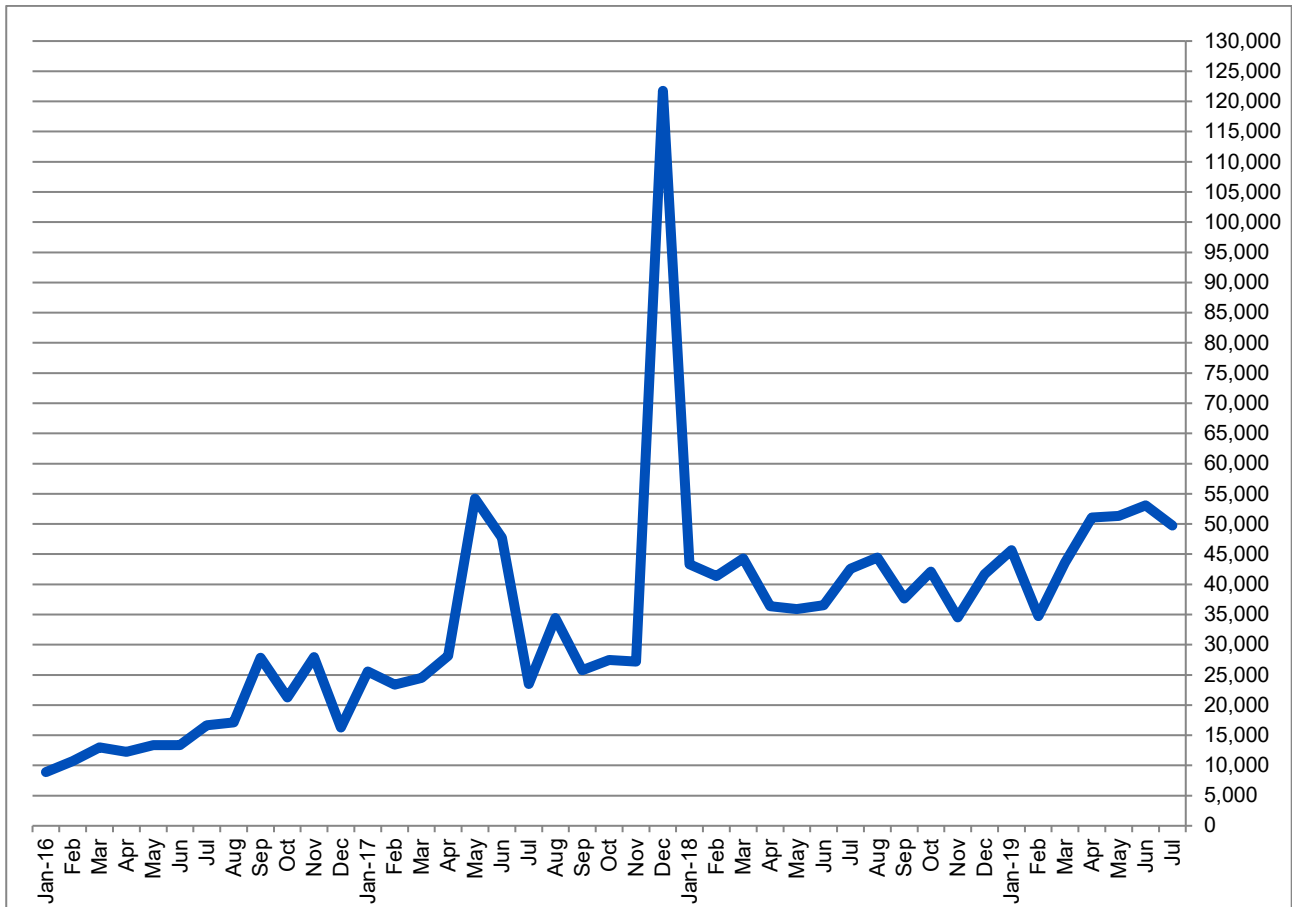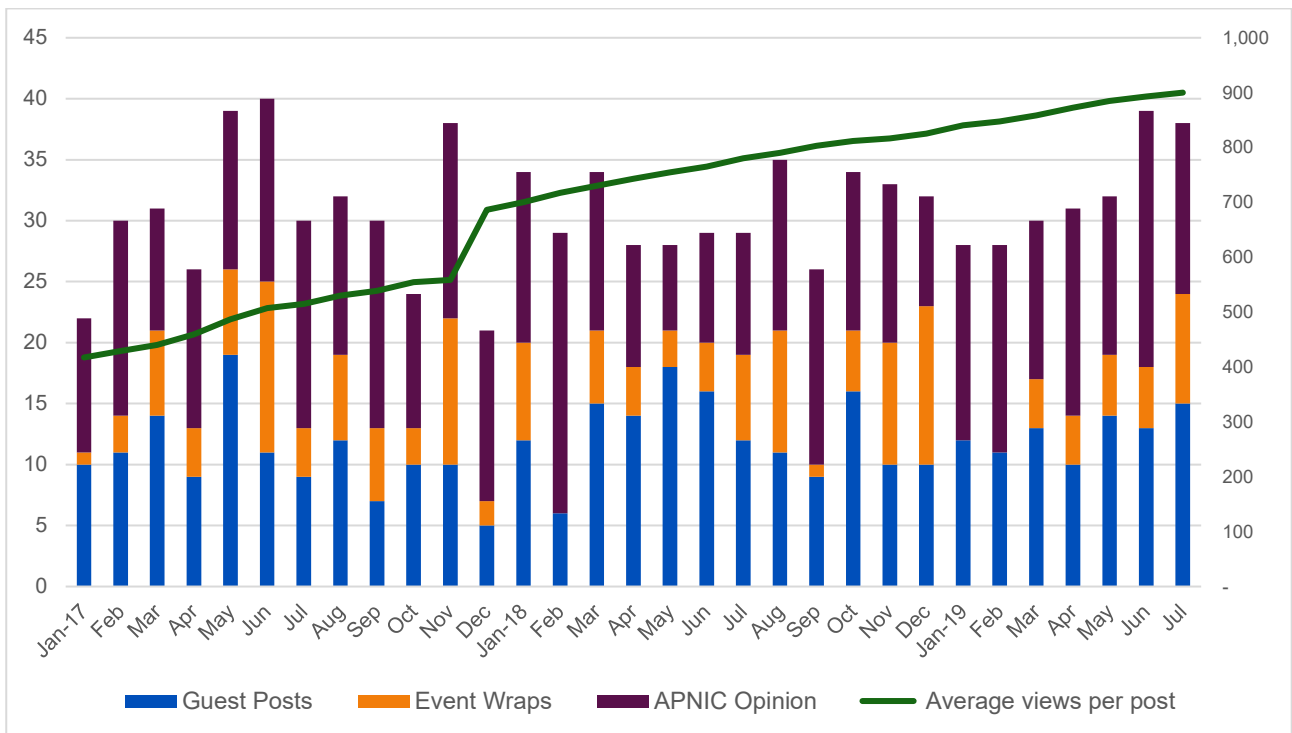
There have been 199 Guest Posts so far in 2019, representing 44% of total opinion posts. This proportion has declined compared to 2018's Guest Post ratio of 50%.

Popular posts to date have included:

- Reports on BGP leaks/hijacks in May and June that impacted global network operators, written by ISOC's Aftab Siddiqui and Oracle's Doug Madory.
- Two Guest Posts on DNS Flag Day written by CZ.NIC's Petr Špaček and Internet NZ's Sebastian Castro.
- Sarvesh Mathi's Guest Post looking at submarine cable building by content providers.
- The news from APNIC 47 that the maximum IPv4 delegation size will be reduced to a /23.
- Geoff Huston's annual research report on BGP metrics, and his thoughts on DANE in a post on OARC 30.

1.2.5   New membership outreach

APNIC shared information on membership to potential new Members seeking Internet number resources at APRICOT, PCTA Convention 2019, ConnectTech Asia 2019, and at NOG events including bdNOG 10, SGNOG 7, MYNOG 8, and SANOG 34.

The total number of new Members that have joined APNIC in 2019 is 355 (see 1.2.1).

1.2.6   Quality management

APNIC will undertake an external full recertification (three yearly) audit of its quality management system in August. In preparation for this, all aspects of the quality system are being audited internally.

1.2.7   APNIC Survey

Planning for the APNIC 2020 survey will begin in Q4.

Projects

1.2.8   Service Partner Trial

There will be continued development of the 'Service Partner' model to improve outreach to APNIC Members according to local needs; support for three Service Partners approved for two-year trial starting in 2018.

Status:

- NEPALREN, MyNOG and PCTA have been signed and trained as Service Partners.
- NEPALREN referred one Member in 2018 and one Member in 2019.
- PCTA referred six Members in 2019.
- MyNOG 8 Conference (July) has not produced any referrals so far but APNIC received interest from JBIX (Johor Baru Internet Exchange, existing Member) to become a Service Partner.
- Interest was also received from Lao's LANIC (existing Member) and Timor Leste's National Communications Authority (existing Member) to become Service Partners.

1.2.9   Membership lifecycle management

This is a project to continue developing systems for Member lifecycle management, integrating various internal systems to improve service efficiencies and user experiences.

Status:

- Mapping of existing Member/resource application processes was completed. Identified routine processes associated with new Membership applications that can be automated.

- Work began on a complete overhaul of the application form as first step to improving the Member journey, reduce delays and accelerate application processing times.

- Wireframes were completed for the proposed new application form, based on pain points identified by new Member applicants.

1.3   Technical Infrastructure Services

1.3.1   Data centres and interconnections

The IS Team is currently testing a new connection into Singapore provided by PCCW Global and Megaport.

1.3.2   Maintenance, depreciation and licensing

APNIC continues to work towards gaining 'Non-profit' status with TechSoup to receive better organizational discounts from vendors. The Business IT Team is currently consolidating individual licensing to group licensing for products used by staff.

1.3.3   Information Architecture

A common **Information Architecture** has been created to support better integration of APNIC systems.

- Using the **Data Vault 2.0** industry standard, sourcing information from a range of systems and providing services for business analysis and reporting.

- The internal Data Governance Group has established a internal API architecture and criteria for management and administration of API-level integrations.

- Product teams will use these to provide greater coordination between systems and services.

1.3.4   Business applications

- A new registration system was launched for APNIC 47, for all conference, workshop and other events. Using Salesforce and the external SSO, the new system is much better integrated with other systems including APNIC Academy, MyAPNIC and member database.

- Internal SSO using Okta for all primary applications including Office 365, Salesforce, NetSuite, Slack, Zoom, Jira, Doodle, Expensity, Egencia and others.

- The new HR system (Elmo) will replace Halogen and Netsuite HR modules for deployment in Q3.

- Slack was selected as APNIC's primary chat/messaging software and was implemented during Q2.

1.3.5   Virtualization and cloud

- Upgrades of on-premise virtualization servers is underway, to provide greater capacity for the production, development and testing environments.

- Storage system software is also being upgraded, and a fast-host cache layer is being introduced to bring performance improvements to virtual machine guests.

1.3.6   Software process improvement

- Gitlab CI/CD (Continuous Integration/Continuous Deployment) pipelines set up for 10 of APNIC's current software projects. Substantial work was required for the configuration and setup of better-isolated test environments for use by these pipelines.

Projects

1.3.7   Strengthening of APNIC-CSIRT

Strengthening security incident response within APNIC (relating to APNIC systems and services) through improved internal processes and external coordination.

Status:

- The draft of the updated incident handling procedure and process is being finalized for inclusion in the ISMS ISO27001 documents (note, ISO27001 certification is not planned for 2019).

- A proposal for inter-RIR security collaboration was agreed by the NRO, resulting in the establishment of a Security group and Incident Response Team.

1.4   Member Training

1.4.1   Training services

	Face-to-Face	APNIC Academy
Courses (by topic)	39 courses/workshops	409 courses / 409 certs
Locations	24 cities / 20 economies	35 economies
Training Days	101	239 days equiv
Student-days taught	2,848	1,907 hours equiv
Students	1,065	2,263 active users
Virtual Labs	N/A	848
YouTube Training Channel	25,263 views / 462 new subs	N/A

Table 11: Training delivery

1.4.2   Community Trainers

APNIC has recruited 19 Community Trainers from 11 economies. Since January 2019, 12 Community Trainers from nine different economies have assisted at 15 training events in 11 economies (Bangladesh, China, Indonesia, India, Laos, Pakistan, Papua New Guinea, Philippines, Maldives, Samoa, and Vanuatu).

At two of these training events (INNOG and an APNIC-organized workshop in Pakistan) Community Trainers led the training, with no APNIC Trainer present.

In August, five Community Trainers will assist at five training events; in September, four will assist at APNIC 48.

1.4.3   Technical Assistance

APNIC has provided remote technical assistance for:

- Tonga Cable's IPv6 deployment.
- MMIX Route Origin Validation (ROV) deployment.
- TashiCell's ROV deployment.

Projects

1.4.4   APNIC Academy

Development of the APNIC Academy as the platform for delivery of online training and technical assistance to APNIC Members continues.

Status:

- Hosted five webinars on the APNIC Academy's new live webinar platform (Network Security Fundamentals, RPKI Deployment, DNSSEC, DDoS Attack Prevention and Packet Analysis for Network Security) attracting 451 participants from 31 economies.

- Developing new IPv6 Fundamentals online course with five new modules (IPv6 Header Format, IPv6 Extension Headers, IPv6 Address Representation, IPv6 Address Types and IPv6 Neighbour Discovery) for launch at APNIC 48.

- Development of multilingual support is complete for Chinese (Simplified), Chinese (Traditional), Indonesian, Japanese, Korean, Mongolian, Thai and Vietnamese, and will be launched at APNIC 48. Course content is also being translated with new video subtitling added.

- Increased interest by APNIC Members in the Academy with 2,263 active users from 35 economies (from over 3,000 registered); 409 course completions; 848 virtual lab launches.

2 Regional Development

2.1 APNIC Conferences

2.1.1 APNIC Conferences

APRICOT 2019

APRICOT 2019 was held in Daejeon, South Korea, from 18 to 28 February 2019 at the Daejeon Convention Centre.

Conference statistics	
Total number of on-site delegates	714
Economies represented	57
APNIC Member organizations represented	153
Remote Participants – Adobe Connect	196
Remote Participants – YouTube	3,757 views; 30,153 minutes
#apricot2019 tweets	1,194

Table 12: Conference statistics

APNIC held its second Hackathon event at APRICOT 2019 with 16 participants (4 female and 12 male), with a focus on measuring how addressing resources are distributed, routed and used.

Other Internet community events held at APRICOT included a GFCE Triple-I meeting; a FIRST TC; APIX AP*, and APCERT SC meetings; and DotAsia's AGM.

APNIC 48

- APNIC 48 will be held in Chiang Mai, Thailand, from 5 to 12 September 2019. The venue will be the Le Meridien Chiang Mai. Registrations (opened in May) stood at 380 at the end of July.

- The Call for Papers received 34 submissions for nine technical and two tutorial sessions. Thirteen technical presentations, two tutorials, and one BoF submission were accepted. Of the rejected submissions, six were acceptable but rejected due to lack of available space in the program.

- The program for APNIC 48 incorporates a security track and several dedicated RPKI sessions. Two keynote speakers, Job Snijders from NTT and Narelle Wakely from Trustwave, were confirmed.

- Fellowships opened in May with 52 fellows confirmed (see 2.2.11).

- Sixteen sponsors have been confirmed, contributing AUD 141,425 to APNIC 48.

Future conferences

- **APRICOT 2020** will be held in Melbourne, Australia, from 12 to 21 February 2020. See 2020.apricot.net.

- Dhaka, Bangladesh, was announced in July as the location of **APNIC 50** following a site visit and meetings with the Minister for Post and Telecommunication, Mustafa Jabbar; BTRC Commissioner, Md Rezaul Quader; with the ISPAB Board and several APNIC Members. ISPAB will be the local host and the Bangladesh Government expressed strong support for the event.

2.2   Regional Technical Development

2.2.1   Policy

APNIC 47

- Five policy proposals were considered at the APNIC 47 Policy SIG, and 3 reached consensus in the SIG and AGM:

    – prop-129: Abolish waiting list for unmet IPv4 requests

    – prop-128: Multihoming not required for ASN

    – prop-127: Change maximum delegation size of 103/8 IPv4 address pool to a /23

- Regarding prop-127, an interim arrangement was announced by the EC to limit the maximum IPv4 delegation size to a /23 while the four-week comment period was underway.

- Two proposals did not reach consensus and were returned to the mailing list for further discussion:

    – prop-126: PDP Update

    – prop-124: Clarification on IPv6 sub-assignments

- One proposal was abandoned before APNIC 47: prop-118: No need policy in APNIC region

- Current Chair, Sumon Ahmed Sabir, was re-elected as Chair of the Policy SIG for a two-year period. There was no other candidate for the election.

Policy implementation

- The comment period for prop-127, 128 and 129 concluded with no objections and the EC endorsed the adoption of all three policy proposals on 9 April 2019.

- Prop-127 was implemented immediately and the interim arrangement was lifted on the same day.

- Prop-128 and prop-129 were implemented in July.

APNIC 48

Five policy proposals will be considered at the APNIC 48 Policy SIG.

- prop-124: Clarification on Sub-Assignments

- prop-126: PDP Update

- prop-130: Modification of transfer policies

- prop-131: Editorial changes in IPv6 Policy

- prop-132: AS0 for Bogons

2.2.2   Internet exchanges, rootservers and measurement

APNIC is supporting the following initiatives during 2019:

- K-root server deployment in Thimphu, Bhutan (hosted by BTIX) in January.

- BKNIX Peering Forum 2019, MMIX Peering Forum 2019 and Peering Asia 3.0, as well as the 30th DNS-OARC Workshop, held in Thailand in May.

- Continuing support for PeeringDB and IXPDB during 2019.

- Agreed to sponsor two more root servers (agreements signed and waiting for commissioning to be completed): MMIX (K-root) and USP Fiji (F-root) connecting to Fiji-IX

2.2.3   RPKI

APNIC is supporting the following RPKI initiatives:

- Five Routing Security tutorials/workshops in 2019.

- Supporting TashiCell (Bhutan) remotely with RPKI deployment (to ascertain issues of propagating validation states from border routers running IOS-XE, to iBGP peers running JunOS).

- Presented RPKI at the ICANN-APAC TWNIC Engagement Forum in Taiwan.

- Discussions on RPKI deployment with IDNIC in a meeting at the APNIC office and work around that continues.

- A major focus at APNIC 48: two dedicated RPKI conference sessions, an RPKI keynote presentation, a one-day RPKI Deployathon, ROA Signing BoF and RPKI deployment BoF.

- Fourteen RPKI-tagged posts published on the APNIC Blog in 2019.

2.2.4   IPv6

APNIC is supporting the following IPv6 initiatives:

- Nine IPv6 deployment workshops in 2019.

- Supporting Bhutan Telecom and Tonga Cable resolve issues with IPv6 deployment, increasing Bhutan Telecom IPv6 usage from 4% to 16%.

- IPv6 Deployment sessions at APNIC conferences (with TWNIC's ongoing support). SK Telecom and Chunghwa Telecom presented on their IPv6 deployment activities at APNIC 47.

- Forty IPv6-tagged blog posts published.

- 'IPv6 Week' promotional activities during 3 to 7 June included six new IPv6 blog posts, social media promotion, and emails to encourage Members without an IPv6 allocation to obtain one.

- New IPv6 deployment success stories on IBM, SK Telecom, and China Cache have been published, with seven additional IPv6 deployment success stories in production for a 2019 release.

- The ratio of APNIC Members holding IPv6 resources is 63.05%.

- Total IPv6 capability (as measured by APNIC Labs) in the APNIC region was 28.61%.

2.2.5   Network Operator Groups (NOGs)

APNIC supported the following NOGs with sponsorship (s), presentations (p) and programme committee (c) contributions during 2019 so far:

South Asia	South-East Asia	East Asia	Oceania
SANOG 33 spc	PhNOG 2019 sp	JANOG 43 s	NZNOG 2019 p
bdNOG 10 spc	ThaiNOG 2 sp	HKNOG 7.0 sp	PacNOG 24 s
btNOG 6 spc	KHNOG c	TWNOG 3.0 spc	
INNOG 2 spc	MMNOG c	JANOG 44 sp	
SANOG 34 spc	MYNOG 8 spc	TWNOG c	
	IDNOG 6 spc		
	SGNOG 7 sp		
	PhNOG (July) pc		
	IDNOG 6 pc		

Table 13: NOGs Sponsored

Several new and re-formed NOGs in 2019:

- Mongolia NOG (mnNOG) will hold its inaugural event on 16 to 20 September. APNIC has agreed to sponsor mnNOG 1 as a Founding Partner, host mailing list and CFP submission system, provided NOG setup advice, and supported program committee.

- Discussions to revive khNOG have been ongoing since March. APNIC is hosting the mailing list and supported coordination team and program committee.

- Discussions to establish a Lao NOG began in June.

2.2.6 Security

APNIC participated at several security-related engagements so far in 2019:

- APNIC 47, helping to organize the session 'Cooperating to Contain Security Threats', and collaborated with FIRST.org, KRCERT/CC and APCERT to organize a one-day security track at APRICOT 2019; Cybersecurity Regional Forum; and the GFCE Triple-I Workshop.

- Two FIRST.org Board Meetings, in Estonia and Peru, and the FIRST Annual Conference in Scotland (marking the end of Adli Wahid's term as a FIRST Board Member after five years of service).

- Support for capacity building and training workshops in public safety and law enforcement, including Regional Prosecutors training in Taiwan, the International Symposium on Cybercrime in South Korea, Cyber Pasifika workshop in Fiji, Hong Kong Police Cyber Command course, and a session with INTERPOL in Singapore.

- Sponsorship for the RISE-HK Conference, Threat Con in Nepal, and the Annual Gobal Honeynet Conference 2019.

- Published 65 security-tagged blog posts in 2019.

2.2.7 CERT/CSIRTs

APNIC has supported the following CERT-related activities in 2019:

- FIRST Security track at APRICOT 2019, TRANSITS-I workshops at APAN 47 and APAN 48, and APISC Annual CERT workshop in South Korea (organized by KISA).

- Regional CSIRT workshop in Samoa in May for 35 delegates from nine economies (Tonga, Vanuatu, PNG, Cook Islands, Solomon Islands, Kiribati, Tuvalu and Samoa), under APNIC Foundation funded project to build cybersecurity capacity in the Pacific.

- Community Honeynet Project expanded with partners in Bhutan, Bangladesh, Malaysia, Samoa, Tonga and Indonesia, providing data for use by DASH Network Security Product and for network security training and security engagement activities.

Projects

2.2.8 Network Security Product

This is a project to develop a prototype 'security dashboard' (DASH) that can support Members' security needs related to IP address holdings.

Status:

- DASH MVP developed and tested during APNIC 47. User experience and user interface improvements have been implemented, based on feedback received.

- Improvements to the backend have been implemented to ensure reliability of the system. Authentication has been updated to use the APNIC SSO login.

- A soft launch is planned for APNIC 48, in addition to further user interviews with APNIC Members at the conference to understand user motivations and behaviours.

2.2.9   Internet Directory and other information services

This is a project to continue improving information services about Internet number resources managed by APNIC, including information about how they are delegated and used.

Status:

- Internet Directory: New version released including improvements to the user interface and experience; extended the comparison mode to now include the entire Asia Pacific region, sub-regions and economies and IPv6 deployment charts. Further product testing is planned during APNIC 48 to guide future improvements.

- Other information services: APNIC's version of RIPEstat was named NetOX and is now available through https://netox.apnic.net/. New widgets to display points of contact from PeeringDB and AS relationships from CAIDA have been prototyped. A new whowas widget is being designed and prototyped. A new idea for implementing a shared knowledge base for network operators is being explored (interviews will be conducted during APNIC 48).

2.2.10   Community sponsorship

In addition to 2019 NOG sponsorships (see 2.2.5), APNIC has committed to support these community events:

- APrIGF 2019, Russia

- AINTEC 2019, Thailand

- Pacific ICT Days and VanIGF, Vanuatu

- PKSIG, Pakistan

- inSIG, India

- NetThing, Australia

- NetHui, New Zealand

APNIC is a paid member of APT, ITU, PTC and ISOC in 2019.

2.2.11   Fellowship program

APNIC 48 Fellowships opened for applications in May 2019, attracting 439 applications. Fifty-two fellows were selected from 20 economies, comprising 27 Professional Fellows, 21 Youth Fellows and four Returning Fellows. The number of Youth Fellows is the highest number ever selected. The gender split among the fellows is 50% female and 50% male.

2.2.12   Community participation

The following initiatives were completed to promote participation in major APNIC community activities:

- APRICOT 2019: regular email bulletins, social media promotion and advertising, blog posts; translated promotional emails to Members in Japan and China; worked with KISTI, KRNIC and KINX to distribute emails to Korean contacts; promotional slides in NOG and training presentations; 'Save the Date' cards distributed at NOG and technical events in the region.

- Policy: summaries of five policies for discussion at APNIC 47 (plus summary of results) translated into eight languages; blog posts pre- and post-SIG meeting; Facebook Live policy webinar pre-APNIC 47 attracted 315 unique views; invitation to Policy SIG sent to all Members; policy engagement presentations delivered at bdNOG 10, SANOG 34, and INNOG 2.

- APNIC 48: regular email bulletins, social media promotion and advertising, blog posts; translated promotional emails to Members in Thailand; worked with THNIC to distribute emails to Thai contacts; promotional slides in NOG and training presentations; 'Save the Date' cards distributed at NOG and technical events in the region. Additional outreach to encourage youth participation is reported in section 2.2.17.

APNIC authors published 111 posts on the APNIC Blog (see section 1.2.4), with community engagement via APNIC's social media detailed below.

		Q1	Q2	Q3*
Facebook				
	Reach	1,087,340	499,871	205,642
	Likes	28,304	28,646	28,760
Twitter				
	Followers	9,840	10,173	10,276
	Engagement	9,704	10,523	6,494
YouTube				
	Views	13,714	6,930	2,532
	Minutes	95,413	44,427	15,333
Slideshare	Views	41,413	37,248	12,333
LinkedIn				
	Reach	27,347	23,560	10,730
	Followers	3,530	3,723	3,821

Table 14: Social Media summary

Cooperation SIG

- The theme of the Cooperation SIG meeting at APNIC 47 was 'Internet Content Blocking and Filtering – Challenges and Way Forward'.

- The Cooperation SIG Chair election was held at APNIC 47 on Monday, 25 February. Joy Chan was elected as the new Chair and will serve a two-year term.

- The theme of the Cooperation SIG meeting at APNIC 48 will be 'Internet Jurisdiction'.

NIR SIG

- The NIR SIG Chair election was held at APNIC 47 on Tuesday, 26 February. Billy Cheon was elected as the new Chair and will serve a two-year term.

- An NIR SIG Co-Chair election will be held at APNIC 48.

2.2.13 Government and IGOs

- APNIC was invited to present about Internet operations at the ASEAN Regional Cyber Norms Workshop in Malaysia, which included 30+ government officials of different agencies dealing with cybersecurity in the ASEAN region.

- APNIC was offered a speaking slot and participated in the ITU Global Symposium for Regulators in Vanuatu, with 325 participants from 64 economies.

- The 1st APT Preparatory Group for WTSA-20 was held in Japan ahead of next year's ITU World Telcommunications Standardization Assembly.

2.2.14 Internet governance

- APNIC attended APrIGF 2019 in Russia, with some staff participating remotely from APNIC's office. APNIC co-organized four workshop proposals and contributed actively in the conference.

- APNIC participated in VanIGF in Vanuatu, which ran parallel to Pacific ICT Days, the first local IGF event in Vanuatu.

- Sylvia Cadena was reappointed to the IGF MAG and Rajesh Chharia was appointed as new member. Both attended MAG meetings and Open Consultations in preparation of the 2019 IGF, to happen in November in Berlin.

- Paul Wilson has been nominated for the IGF MAG chair position and received support from both private and technical stakeholder groups.

2.2.15 Research & Education Networks

- APNIC conducted three tutorials and presented on RPKI deployment at APAN 47 in South Korea; worked with GEANT to deliver TRANSITS-I training for R&E CSIRT development under Asi@Connect funding. During APAN 47, Jamie Gillespie was appointed as Co-Chair for the APAN Security Working Group.

- APAN 48, in addition to sponsoring the event, APNIC conducted two tutorials and worked with GEANT again to deliver TRANSIT-I training. Peter Blee presented on the APNIC Academy at a Lightning Talks session, and Jamie assisted the APAN Security WG meeting as Co-Chair.

- APNIC continues to engage with the R&E community to improve their education curriculum with APNIC training content. APNIC also continues to partner with various R&E organizations on training, under Asi@Connect and other funding sources.

Projects

2.2.16 Community Diversity

This project aims to measure the diversity (including gender, age and language) of community participation in APNIC events and activities. Activities completed to date include:

- Diversity measurements and potential data sources were identified and changes to APNIC forms have been implemented where necessary to begin data collection.

- Data analysis is planned for Q4 once a material sample size has been collected.

2.2.17 Encouraging newcomers

This project aims to encourage new participants in the APNIC community; in particular, the next generation of network engineers. Activities completed to date include:

- Promotion of youth fellowships to the community via social media, mailing lists and the APNIC Blog.

- Promotion of APNIC 48 to technical faculties at universities in Chiang Mai and Bangkok via direct mail and Facebook groups using translated content. An APNIC 48 landing page for Thai students was created and deployed in Thai.

- Student pricing for APNIC 48 was reviewed and lowered for the conference.

- Arranged, scheduled and promoted a 'NextGen Careers BoF' at APNIC 48, focusing on career advice / insights from industry leaders.

- Reviewed and updated script for a 2019 version of 'What is APNIC' video.

2.3   APNIC Foundation

2.3.1   Administrative support

- APNIC continues to provide administrative support (financial service, travel, logistic and other) for the Foundation, in addition to working on implementation of many projects (documented below), mostly on a cost-recovery basis.

- The second meeting of the Foundation's Board was held on Saturday, 4 May, in Singapore. All five Board members attended: Sylvia Sumarlin, Edward Tian (remotely), Sharad Sanghi, and new members Danish Lakhani and Michael Malone.

- The Foundation's second annual report will be released in Q3 2019.

2.3.2   ISIF Asia

Grants and awards

- The 2019 Call for Proposals opened on 1 April and closed on 21 June.

- The Internet for Development category focuses on power solutions for Internet infrastructure and will allocate a total of USD 40,000 for two grants.

- The Network Operations Research category focuses on security and reliability and will allocate USD 60,000 for three grants.

- The Selection Committee decided not to allocate the ISIF Award for 2019.

- Funding for the 2019 round of grants was provided by APNIC.

2.3.3   Foundation activities

The following Foundation projects and activities have been completed during 2019:

- The second community consultation (14th engagement) of the PNG training project, with an additional AUD 140,000 in funding was confirmed.

- The third and final regional workshop for the Pacific CERT project held in Samoa in May, with an additional AUD 21,000 in funding was confirmed.

- The final workshop for the Pacific LEA project was completed.

- The first community consultation in Lae (15th engagement) was completed for the PNG training project.

- The 16th engagement in PNG (and first workshop of 2019) was completed in July for the PNG training project.

Planning for 2019 continued for the Foundation's four projects in the Pacific:

- Technical training and support for the PNG Internet community.

- Equipment support for PNGCERT.

- Training and support for CERTs/CSIRTs in the Pacific. This project was formally completed on 31 June.

- Training for LEAs in the Pacific. This project will be completed in December 2019.

3 Global Cooperation

3.1 Global Technical Community

3.1.1 RIR collaboration

The following RIR collaborations have taken place in 2019:

- Participation in LACNIC 31, ARIN 43, RIPE 78 and AFRINIC 30.

- In May, the NRO-EC had a face-to-face meeting after RIPE 78, also together with the RIR Legal group.

- APNIC worked actively to conclude the **ASO Review**, working with the RIR Legal group to plan the implementation of review recommendations 1 to 17.

- In July, APNIC hosted Rehan Muhammad from the RIPE NCC, for work on registry software architecture and operations.

- Also in July, APNIC hosted Mathias Ferre from LACNIC, to collaborate on business intelligence analysis and database management.

- Sunny Chendi took part in an RIR policy managers meeting at LACNIC 31 and participated in a staff exchange at LACNIC.

- At IETF 105 Montreal, APNIC presented on RDAP consistency with a draft RIR RDAP profile document, and released a conformance checker suite on GIT to the other RIRs.

- Technical liaison from APNIC was added to the RSCG, on behalf of the ECG.

- A new joint NRO incident response team has been established; and PSCG (Public Safety Coordination Group) is in formation.

3.1.2 I* collaboration

- APNIC participated in ICANN 64 in Kobe, Japan, and a joint meeting between the EC and ICANN Board members.

- APNIC participated in ICANN 65 in Marrakech, Morocco, and the NRO CCG meeting that was held concurrently.

3.2 Inter-governmental outreach

3.2.1 Inter-governmental engagement

- Sylvia Cadena attended the Internet and Jurisdiction Policy Network 3rd Global Conference.

- ISIF again received a WSIS Champion award, as one of 90 ICT-related projects implementing the WSIS Action Lines around the world.

3.3 Global Research

3.3.1 Global research and measurements

Research activities conducted by Geoff Huston and Joao Damas during this period include:

- DNS related research with ICANN (contract extended to 2019).

- Ongoing activity with the ICANN SSAC and RSSAC Committees.

- Investigation of DNSSEC and its role in NSEC caching.

- Open resolver collaboration with Cloudflare.

- ITHI DNS measurement (funded by ICANN).

- Studies of DNS resolver concentration.

- Development of BGP update analyser.

3.3.2   Research presentations

- Why is Securing the Routing System so Damn Difficult? (NZNOG 2019)

- What's the Time? (SANOG 33, APRICOT 2019)

- Securing the Routing System (Keynote, SANOG 33)

- BGP in 2019 (APRICOT 2019)

- DNS Privacy (APRICOT 2019)

- Why is Internet Security so hard? (APNIC 47)

- Unadvertised Addresses in the APNIC Registry (APNIC 47)

- IPv6 Performance Measurement (IETF 104)

- Why DNSSEC (DNS Security Session)

- APNIC's Security Activities (ICANN APAC TWNIC Engagement Forum)

- TCP and BBR (Tech Presentation)

- What part of "NO" is so hard to understand? (DNS OARC 30)

- That KSK Roll (RIPE 78)

- IPv6 Reliability Measurements (RIPE 78)

- BGP in 2018 (RIPE 78)

- 30 years of BGP (IAB Design Expectations vs Deployment Workshop)

- The Rise (and Fall) of the Internet (Henry Sutton Oration, Telecommunications Society of Australia)

- BGP in 2018 (IETF 105)

4   Corporate

4.1   Human Resource Management

4.1.1   Recruitment

See separate Human Resources report.

4.1.2   Product Management

The implementation of Product Management methodology is proceeding in 2019 with the formation of dedicated product teams responsible for specific APNIC products and services.

- Three cross-functional product teams, dedicated to Registry, Membership and Information Services were created, focused on delivering value to our members and broader community.

- Developers are using Agile Scrum as our standard methodology.

- Three support teams for web development, platform and devops support were created.

- During Q2, extended teams were selected and relocated, and training on Product Management and Agile development principles was provided. Ongoing coaching continues.

- Company-wide training on Product Management Principles was delivered.

4.1.3   Staff retention and development

Continued professional development, with technical certification and leadership development prioritized. A staff conference will be held in August 2019 with a focus on strategic planning for the 2020-2023 period.

Projects

4.1.4   Onboarding development

Onboarding processes have been extended to cover a more diverse and distributed workforce (including interns and Community Trainers) to improve knowledge and awareness of APNIC.

Status:

- Concise policy handbook drafted.

- Online training in place to provide both compliance and professional development training.

4.2 Financial and Administration

4.2.1 Financial management

- The routine external audit of APNIC's financial accounts for 2018 was completed in early February, without any substantial findings.

- As required under APNIC's 5-year audit rotation policy, the APNIC EC approved the appointment of Deloitte from December 2019.

- To improve operational efficiency, APNIC's internal financial delegation policy has been updated and implemented across all systems, procedures, and policies.

KPI Dashboard Finance Team YTD KPI (2019)

Number of	Jul-19	Avg/Mnth	YTD	2018	2017	2016	2015
Phone Calls (Outward)	256	240	1,679	2,556	3,253	3,500	
RTs Received (Total)	2,545	1,989	13,928	24,969	21,324	19,981	21,779
E-Bill	1,812	1,421	9,947	19,406	16,379	15,331	19,603
Finance	276	214	1,501	1,894	1,385	1,328	1,332
Accounts Payable	150	125	878	1,153	1,241	1,261	841
Inward Payment	307	229	1,602	2,516	2,319	2,061	3
Accounts Receivable							
APNIC Member Count	57	53	7,536	7,162	6,547	5,994	5,268
New Members	83	69	485	817	844	1,030	940
New Non-members	3	1	7	16	11	18	24
Receipts Processed	889	771	5,399	8,786	8,061	7,514	6,645
Invoices issued	841	764	5,346	8,897	8,264	7,537	7,271
Credit notes issued	26	28	199	401	550	529	575
Accounts Closed	30	20	142	235	332	322	358
Closure Notice sent	101	79	555	948	994	945	900
Reactivation Members	1	2	15	23	31	45	51
Reactivation fee waived	-	-	1	2	2	8	6
Refund Members	4	5	35	93	73	68	46
Accounts Payable							
Asset Created	15	12	82	164	260	189	156
Asset Disposal	-	3	23	84	76	127	147
PO created by Finance	53	37	261	544	488	213	209
PO Billed	221	182	1,272	2,005	1,957	1,947	1,980
Supplier EFT Payment	95	80	558	880	932	891	946
Reimburse Payment	45	37	259	476	429	386	388
Reimburse Transaction	265	228	1,597	2,080	2,088	1,912	2,322
Journals processed	79	83	580	1,080	833	888	1,005
Cash Advance Request	4	1	8	28	21	18	28
Vendor Request	12	9	64	78	97	141	431
Foundation Support	188	122	855	3,217	2,454	1,046	829
NRO Support	28	17	119	289	756	537	609

Table 15: Finance KPI summary

4.2.2   Office management

The office team continues to actively manage office space, facilities and supplies. Several small renovations were completed in 2019 (see 4.4.1 below)

4.2.3   Travel management

The Business Team is working on a trial basis with Egencia to provide APNIC staff a self-travel booking system.

Travel Statistics*

	YTD JUL 2019	YTD JUL 2018	Change %
Travel Booked			
Domestic	19	35	-46%
International	226	199	14%
	245	234	5%

*Booked through APNIC's Travel Management Company, excludes external bookings

Figure 10: Travel statistics

Projects

4.2.4   Enhancing Member payment facilities

This is a project to provide efficient ways for account holders to pay their fees by increasing the number of payment options available.

Status:

▪ Western Union Corporate, currently used for outgoing payments, is being trialled as a payment method for Members (allowing Members to pay their APNIC fees in local currency via credit card or EFT transactions).

▪ 80 Members from 16 economies have been provided with a trial payment link. 8 of these members chose the Western Union option and paid successfully (the remaining chose other payment methods).

4.2.5   New expense management tool (new project)

▪ Final testing of 'Expensify' for management of employee expenses was completed, with the application fully integrated with the ERP system. Full implementation is scheduled for 1 September.

▪ This implementation will also incorporate a new streamlined approach to travel allowances.

4.3   Legal and Governance

4.3.1   Legal counsel and business advisors

▪ APNIC's insurance policies were reviewed and renewed in March.

▪ The agreement with International SOS for travel support is currently under renegotiation.

▪ APNIC will complete a routine review of practices and procedures for personal data collection in Q4, to ensure ongoing compliance with privacy principles.

4.3.2   Workplace health and safety

Please refer to the HR report.

4.4   Facilities

4.4.1   Building and office facilities

- During 2019, the front entry stairs to the APNIC office were renovated and changes to the fit out of the bathrooms were completed.

- The workstation configuration was changed to accommodate the relocation of the Product Management teams.

- The APNIC office security system was replaced in May.

Appendix A

A-1   Community engagement summary

Sum of Count

134

APNIC	Member Outreach
CERT Engagement	Membership Development
Coordination	NOG
Development	Other
Foundation Engagement	Security
Foundation Projects	Technical
Government	Technical Assistance
Internet Governance	Training
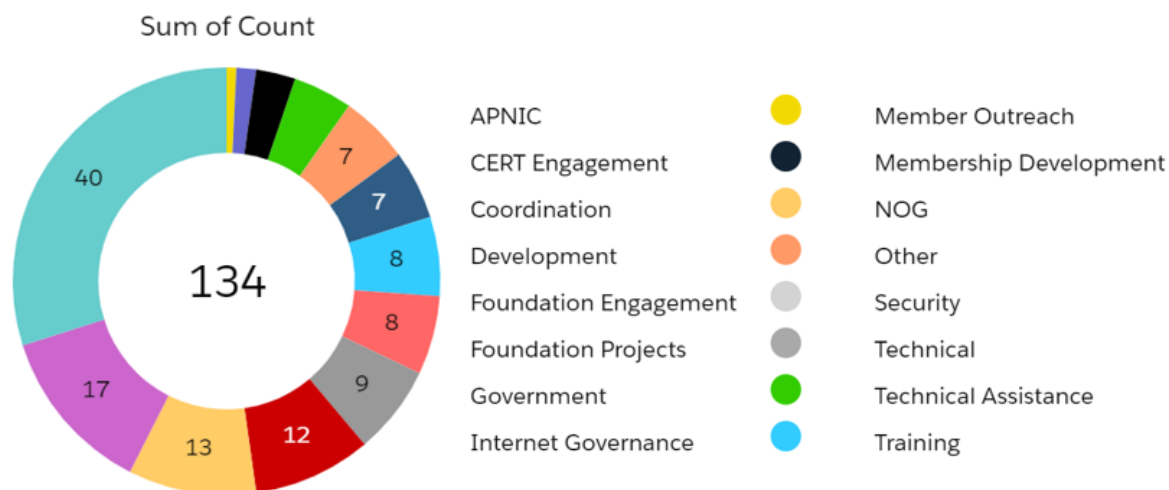
Figure 11: Engagement summary by type

Events vs Engagements

Record Count
Sum of Engagement Count
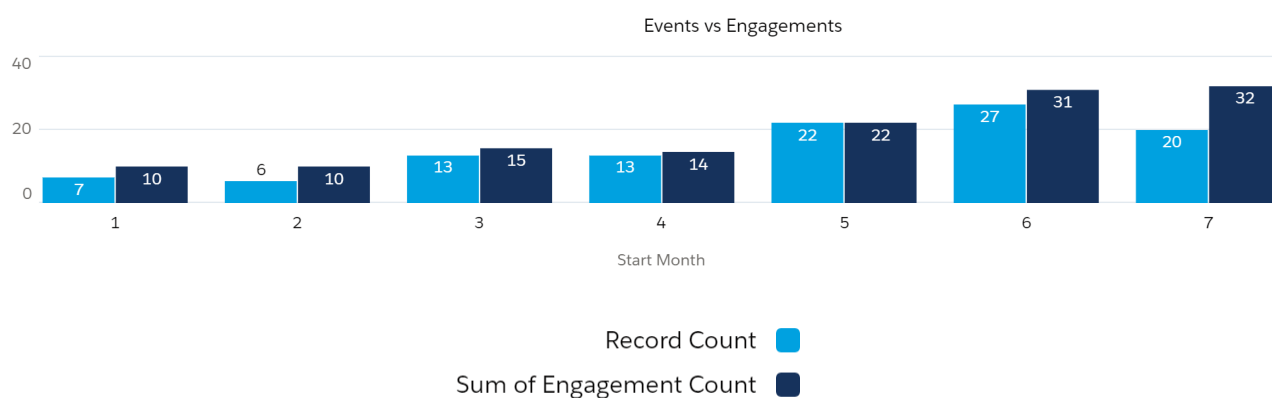
Figure 12: Engagement summary by month

A-2   Events attended Jan – Jul 2019

Month	Event	#	City	CC
Jan	SANOG 33	5	Thimphu	BT
Jan	CAS 25th Anniversary/Member visits	3	Beijing	CN
Jan	Foundation Meetings - Hong Kong	1	Hong Kong	HK
Jan	Linuxconf	4	Christchurch	NZ
Jan	FIRST Board Meeting	1	Talinn	EE
Jan	ELT Quarterly Strategic Meeting	1	Brisbane	AU
Jan	NZNOG 2019	5	Napier	NZ
Jan	1st F2F 2019 Open Consultation and MAG meeting (IGF)	1	Geneva	CH
Jan	AITI SMART Future Forum	1	Brunei	BN
Feb	Cyber Safety Pasifika - Tier 2 Course	1	Nadi	FJ
Feb	Site Visit	1	Brisbane	AU
Feb	Microsoft Ignite	1	Sydney	AU
Feb	RPKI Operational Roundtable 2019 - Cloudflare HQ	2	San Francisco	US
Feb	APAN 47	5	Daejeon	KR
Feb	APRICOT 2019/ APNIC 47	50	Daejeon	KR
Feb	NANOG 75	3	San Francisco	US
Feb	Australasian Aid Conference	2	Canberra	AU
Mar	HKNOG 7.0	2	Hong Kong	HK
Mar	Foundation Meetings - Tokyo	1	Tokyo	JP
Mar	PhNOG 2019	2	Cebu	PH
Mar	Registration Services Coordination Group (RSCG) f2f Meeting	2	Seoul	KR
Mar	Foundation Meetings - Hong Kong	1	Hong Kong	HK
Mar	ICANN 64	4	Kobe	JP
Mar	APNIC Japan's Site Upgrade	2	Tokyo	JP
Mar	Network Security workshop	2	Manila	PH
Mar	Digital ASEAN Workshop	1	Singapore	SG
Mar	HKPF Cyber Command Course	1	Hong Kong	HK
Mar	LaoCERT Engagement	1	Vientienne	LA
Mar	IETF 104	4	Prague	CZ
Mar	Network Security and Packet Analysis workshop	2	Phnom Penh	KH
Mar	Passive and Active Measurement (PAM) 2019 Conference	1	Puerto Varas	CL
Apr	APRICOT2020/APNIC49 Site visit - Melbourne	2	melbourne	AU
Apr	SuiteWorld 2019	2	Las Vegas	US
Apr	PNGTRAINING - Community Consultation and Project Evaluation	2	Port Moresby	PG
Apr	PCTA Convention 2019	1	Pasay City, Manila	PH
Apr	GFCE AB & Working Group Meetings	1	The Hague	NL
Apr	Cyber Security Regional Forum	1	Sydney	AU
Apr	ARIN 43	2	Bridgetown	BB
Apr	PACLEA - Cyber Safety Pasifika Tier 2 Course	1	Nadi	FJ

Apr	IPv4/IPv6 BGP Routing	2	Selangor	MY
Apr	FIRST Board Meeting - Peru	1	Lima	PE
Apr	WSIS Forum 2019 and 2nd F2F MAG Meeting	1	Geneva	CH
Apr	PITA 23rd AGM & Annual Conference	3	Nadi	FJ
Apr	CIPD Asia course HR Business Partner	1	Singapore	SG
Apr	ICANN APAC-TWNIC Engagement Forum	2	Taipei	TW
Apr	US DoJ (OPDAT) for Prosecutors and Judges LEA Training	1	Penang	MY
Apr	bdNOG10	4	Chittagong	BD
Apr	IPv6 Deployment workshop - bdNOG	3	Chittagong	BD
May	Foundation meeting - Singapore	1	Singapore	SG
May	EC Induction	4	Beijing	CN
May	MMIX Peering Forum	1	Yangon	MM
May	Foundation Board meeting	5	Singapore	SG
May	Foundation meetings - Hong Kong	1	Hong Kong	HK
May	LACNIC 31	5	Punta Cana	DO
May	Internet Governance Stakeholder Roundtable	1	Canberra	AU
May	BKNIX Peering Forum 2019	5	Bangkok	TH
May	ThaiNOG 2	4	Bangkok	TH
May	Site Visit	3	Chiang Mai	TH
May	ICANN DNS Symposium	4	Bangkok	TH
May	30th DNS-OARC Workshop	3	Bangkok	TH
May	Foundation Planning Office Visit	1	Brisbane	AU
May	PACCERT – Regional Workshop 3	1	Apia	WS
May	LEA Training with Prosecutors	1	Taipei	TW
May	LACNIC Office Visit	1	Montevideo	UY
May	RISE-HK	1	Hong Kong	HK
May	ELT Quarterly Strategic Meeting	2	Brisbane	AU
May	Stockholm Internet Forum	1	Stockholm	SE
May	Pacific ICT Days / VanIGF	1	Port Vila	VU
May	RIPE 78	8	Reykjavik	IS
May	KISA Member Visit	1	Naju	KR
May	IMEX Conference	1	Frankfurt	DE
May	International Symposium on Cybercrime Response (ISCR) 2019	1	Seoul	KR
May	IPv6 Deployment workshop - TWNIC	2	Taipei	TW
May	PNGTRAINING - Lae event planning	1	Lea	PG
May	AusCERT 2019 Conference	3	Gold Coast	AU
Jun	btNOG 6	2	Paro	BT
Jun	Information Security-Intermediate workshop	2	Port Vila	VU
Jun	Internet & Jurisdiction Policy Network 3rd Global Conference	1	Berlin	DE
Jun	EC Retreat	8	Brisbane	AU
Jun	Internet Architecture Board (IAB) DEDR Workshop	1	Helsinki	FI
Jun	The Future of Digital Government	1	Incheon	KR
Jun	3rd MAG IGF meeting	1	Berlin	DE

Jun	IPv6 Deployment workshop	2	Kolkata	IN
Jun	AIS'19 (with AFRINIC 30)	0	Kampala	UG
Jun	Foundation meetings - Berlin	1	Berlin	DE
Jun	RightsCon Tunis	1	Tunis	TN
Jun	APT-WTSA20-1 / ASTAP-31	1	Tokyo	JP
Jun	ASEAN Regional Cyber Norms Workshop	1	Kuala Lumpur	MY
Jun	INTERPOL Pre-operational Meeting on Cryptojacking	1	Singapore	SG
Jun	ISIFGENDER – Evaluation & Communication workshop at CHC	0	Phnom Penh	KH
Jun	AFRINIC 30	5	Kampala	UG
Jun	FIRST Annual Conference	2	Edinburgh	GB
Jun	Network Security workshop	2	Vientiane	LA
Jun	ConnecTechAsia 2019	4	Singapore	SG
Jun	IPv6 Deployment workshop	2	Beijing	CN
Jun	Henry Sutton Oration 2019	1	Melbourne	AU
Jun	32nd TWNIC IP OPM	3	Taipei	TW
Jun	TWNOG 3.0	3	Taipei	TW
Jun	PacNOG 24	6	Apia	WS
Jun	ICANN 65	4	Marrakech	MA
Jun	Meeting with RIPE NCC Legal Counsel	0	Amsterdam	NL
Jun	AVPN Conference 2019	2	Singapore	SG
Jun	IDNIC OPM/APJII National Meeting 2019	1	Medan	ID
Jun	LAO ICT EXPO 2019	2	Vientiane	LA
Jun	Network Monitoring and Packet Analysis workshop	1	Brisbane	AU
Jun	CNNIC OPM (China Internet Resource Conference) and IPv6 Training	1	Beijing	CN
Jul	INNOG 2	4	New Delhi	IN
Jul	Member visits - BN	2	Brunei	BN
Jul	IXP workshop - INNOG 2	2	New Delhi	IN
Jul	IPv6 Deployment workshop - INNOG 2	2	New Delhi	IN
Jul	PNGTRAINING – Information Security	2	Port Moresby	PG
Jul	MYNOG 8	3	Kuala Lumpur	MY
Jul	APISC Annual CERT Workshop (KISA)	1	Seoul	KR
Jul	ISP Essentials workshop	2	Manila	PH
Jul	Member Visits - TL	1	Dili	TL
Jul	Global Symposium for Regulators (GSR) 2019	1	Port Vila	VU
Jul	Coaching and Leadership Workshop	1	Melbourne	AU
Jul	SGNOG 7	2	Singapore	SG
Jul	APrIGF 2019	2	Vladivostok	RU
Jul	APRICOT 2021 Site Visit	1	Manila	PH
Jul	IPv4/IPv6 BGP Routing workshop	3	Male	MV
Jul	IPv6 Deployment workshop	2	Karachi	PK
Jul	PhNOG 2019 (July)	3	Manila	PH
Jul	APNIC 50 site visits	3	Dhaka	BD
Jul	IETF 105	5	Montreal	CA

Jul	IDNOG 6	2	Jakarta	ID
Jul	APAN 48	4	Kuala Lumpur	MY
Jul	SDN tutorial - APAN 48	1	Putrajaya	MY
Jul	Salesforce Training	1	Gold Coast	AU
Jul	JANOG 44	2	Kobe	JP
Jul	Hands-On Tutorial on ROA/ROV for Secure Routing - APAN 48	1	Putrajaya	MY
Jul	Development Meetings with SGNOG & Higher Ed People	2	Singapore	SG
Jul	6th IRINN OPM 2019	2	Kolkata	IN
Jul	SANOG 34	7	Kolkata	IN
Totals	**134**	**332**	**70**	**46**

*Draft Agenda v004

AMM 1

Time	Topic	Speaker
14:00	EC Chair welcome, introductions, and opening remarks	Gaurab Raj Upadhaya
14:05	APNIC Secretariat Report	Paul Wilson
14:25	APNIC EC Treasurer report	Kenny Huang
14:35	APNIC EC Report	Gaurab Raj Upadhaya
14:50	**Open Mic**	
15:00	NRO EC Report	TBC
15:10	ASO AC Report	Simon Sohel Baroi
15:20	NRO NC Election Results	Election Chair
15:30	**Afternoon Tea Break**	

*Draft Agenda

AMM 2

Time	Topic	Speaker
16:00	Policy SIG Report	Sumon Ahmed Sabir
16:10	NIR SIG Report	Billy Cheon
16:20	Cooperation SIG Report	Joy Chan
16:30	IPv6 Deployment Report	Kenny Huang
16:40	**Open Mic**	
16:50	APIX Report	Che-Hoo Cheng
17:00	Women in ICT update	Sofia Silva Berenguer
17:05	Conference Infrastructure Report	Tohid
17:10	Welcome to APNIC 50	M. A. Hakim
17:15	Welcome to APRICOT 2020/APNIC49	Philip Smith
17:20	Vote of Thanks	Paul Wilson
17:30	EC final Remarks and Close	Gaurab Raj Upadhaya

Five policy proposals up for community discussion at APNIC 48

The [Open Policy Meeting](#) at APNIC 48 will be held on 12 September 2019 in Chiang Mai, Thailand with five policy proposals up for discussion.

Here is a snapshot of these five proposals.

Under discussion from APNIC 47

[**prop-124-v006**](#): **Clarification on Sub-Assignments**

This proposal clarifies the definition of assigned address space for IPv4/IPv6 delegations under Section 2.2.3 of the [APNIC Internet Number Resource Policies](#) document.

When the policy was drafted, the concept of assignments/sub-assignments did not consider a practice very common in IPv4 which is replicated and even amplified in IPv6: the use of IP addresses for point-to-point links or VPNs.

This proposal clarifies the situation in this regard and better defines the concept, particularly considering new uses of IPv6 ([RFC 8273](#)), by means of additional language added to the definition of an assignment.

[**prop-126-v004**](#): **PDP Update**

This proposal suggests updates to Section 4 of the APNIC Policy Development Process (PDP) document.

It aims to increase community participation by also considering the comments in the mailing list for determining consensus. Therefore, consensus would be gauged by balancing the mailing list and Open Policy Meeting discussions. A 'last call' would also be introduced to allow the community a final opportunity to comment on a proposal that has reached consensus at the OPM and AMM via the mailing list.

The proposal also suggests removing 'double' consensus in the Policy SIG and APNIC Member Meeting and proposes amending the consensus definition from 'general consensus' to 'rough consensus', including a complete definition of 'rough consensus'.

Finally, it changes the PDP, adding an appeals process for solving disagreements during the process.

New proposals

prop-130-v001: Modification of transfer policies

This proposal aims to change the existing transfer policies to allow scenarios from a partial or complete business merger, acquisition, re-organization or relocation, in both intra and inter-RIR transfers. Currently the Inter-RIR transfer policy only allows transfer of IPv4 addresses and AS numbers, but this proposal seeks to include IPv6 addresses.

prop-131-v001: Editorial changes in IPv6 Policy

This proposal suggests multiple editorial changes in the IPv6 policy. The intent is to remove unnecessary text and simplify the policy.

prop-132-v002: AS0 for Bogons

This proposal gives APNIC the authority to create AS0 (zero) ROAs for APNIC's unallocated address space to resolve the issue of bogon announcement. When an AS0 ROA has been created for unallocated address space under APNIC's administration, they will be marked as "invalid" if someone tries to advertise the same address space.

Currently, in the absence of any ROA, these bogons are marked as "not found". If any operators have implemented ROV and are either planning or already discarding "invalid" ROAs, all AS0 ROAs which APNIC will create for unallocated address space will be discarded as well.

Agenda Item 11
APNIC Foundation update

Foundation Update

Contents

1. Board update

2. Funded projects

3. New funding proposals

Board update

- Jun Murai from Japan confirmed as the sixth Board member

- Search continuing for the seventh and final Board member

Board update

[Confidential material redacted]

Project update (1)

Project: PNG training (2018-19-20)

Donors: Asia Foundation (USA); DFAT (Australia); MFAT (New Zealand)

Economy: Papua New Guinea

Funding: USD 343,323; USD 108,408 in additional funding from Australia in 2019

Impact

18 community engagements so far including workshops, technical assistance and consultations (since August 2018)

Project update (2)

Project: PNGCERT support (2018-19)

Donor: DFAT (Australia)

Economy: Papua New Guinea

Funding: USD 56,506

Impact

Provision of equipment to PNGCERT

Project update (3)

Project: Pacific technical training (2019-20)

Donor: DFAT

Economies: Fiji, Solomons, Tonga and Vanuatu

Funding: USD 336,000

Impact

Technical training and assistance in the Pacific

Project update (4)

Project: Myanmar university network training (2019)

Donor: KDDI Foundation (Japan)

Economy: Myanmar

Funding: USD 29,144

Full cost recovery for APNIC for two workshops and two trainers

Project update (5)

ISIF Asia 2019 Network Operations Research Grants

- **Modelling and identifying IP address space fragmentation pressure points.** Curtin University. Australia. USD 20,000

- **Honeynet Threat Sharing Platform.** SGU, BSSN (Badan Siber & Sandi Negara) and Indonesia Honeynet Project (IHP). Indonesia. USD 20,000

- **Implementation and Utilities of RDAP for wider usability among Internet Stakeholders.** University of Malaya. Malaysia. USD 20,000

- **Network coding over satellite links: scheduling redundancy for better goodput.** The University of Auckland. New Zealand. USD 20,000

Project update (6)

ISIF Asia 2019 I4D Powering Internet Infrastructure Grants

- **Telemetering the telltale signs of power issues of wireless internet relays.** Rural Broadband – AirJaldi. India. USD 20,000

- **Network Remote Powering through Quasi-Passive Optical Nodes.** Royal Melbourne Institute of Technology. Australia. USD 20,000

ISIF Asia

- 11th year of operation

- USD 120,000 allocated via six grants to five economies

- The 2019 I4D Award was not granted this year, instead one additional grant under the Network Operations Research was allocated

- Thanks to the EC for your continuing support

Funding to date*

Year	Donor	Project	Amount (USD)
2019-2020	Australian Department Of Foreign Affairs and Trade (DFAT)	Pacific technical training	336,000
2019	APNIC	ISIF Asia	115,000
2019	DFAT	PNG Training	100,408
2019	KDDI Foundation (Japan)	Myanmar university training	29,144
Total 2019			601,703

* Funding in red is sent directly to APNIC

Funding to date

Year	Donor	Project	Amount (USD)
2018	The Asia Foundation (USA), New Zealand Ministry of Foreign Affairs and Trade and DFAT	PNG training, IXP and CERT	343,354
2018	DFAT	Pacific LEA training	81,486
2018	DFAT	PNG CERT	56,506
2018	DFAT	Pacific CERT (2nd Phase)	77,126
2018	APNIC	ISIF Asia	118,410
2018	APNIC	ISIF Asia Remain Fund	54,281
Total 2018			**731,162**

Funding to date

Year	Donor	Project	Amount (USD)
2017	DFAT	Pacific CERT (1st phase)	73,819
2017	APNIC	ISIF Asia	122,800
2017	IDRC - Canada	ISIF Asia	79,376
2017	ISOC (USA)	ISIF Asia	33,333
Total 2017			309,328
Grand Total			1,642,193

Funding update – under development

[Confidential material redacted]

Funding update – under development

[Confidential material redacted]

Funding update – under development

[Confidential material redacted]

Funding update – discussing

[Confidential material redacted]

Funding update – discussing
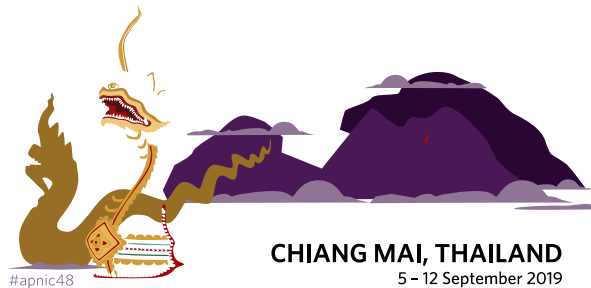
[Confidential material redacted]

Funding update – discussing

[Confidential material redacted]

Thanks

Agenda Item 12
NRO NC Election procedures

APNIC 48

2019 NRO Number Council (NC) Election

2019 NRO NC Election

- One vacant seat on NRO NC
  - Two-year term from 1 January 2020 to 31 December 2021

- Call for nominations: 6 June to 6 August 2019

- Online and on-site voting available
  - https://conference.apnic.net/48/elections

Online Voting via MyAPNIC

- For APNIC Members only

- Voting period
  - Started: Tuesday, 27 August 2019
  - Ended: 9:00 (UTC +7) Tuesday, 10 September 2019

On-site Voting

- Each registered APNIC 48 attendee is entitled to one vote, as an individual

- Voting period
  - Starts: As announced by the Election Chair
  - Ends: 14:00 (UTC +7) Thursday, 12 September 2019

- Ballot Box
  - The ballot box is placed at the Voting desk after the Election Chair announces the opening of on-site voting

Voting Ballot Paper

Declaration of Results

- Election results will be announced at 15:20 (UTC +7) today, 12 September 2019

- The Election Chair will also disclose:
  - Notice of any disputes and resolutions
  - Disclosure of any communication from the Election Scrutineers regarding any anomaly or issue

Declaration of Results

APNIC 48

2019 APNIC NRO NC Election – 12 September 2019

Declaration of results

Total valid paper ballots		250
Total invalid paper ballots		0
Total paper ballots counted		250
Total on-site votes		250
Total online votes		230
Total votes counted		480
Total vote counts for each nominee (combined online and onsite votes)	Candidate 1	280
	Candidate 2	90
	Candidate 3	45
	Candidate 4	24
	Candidate 5	19
	Candidate 6	9
	Candidate 7	6
	Candidate 8	5
	Candidate 9	2
Total votes counted		480

Signature of tellers: _____

Name of tellers:

Date: 12 September 2019
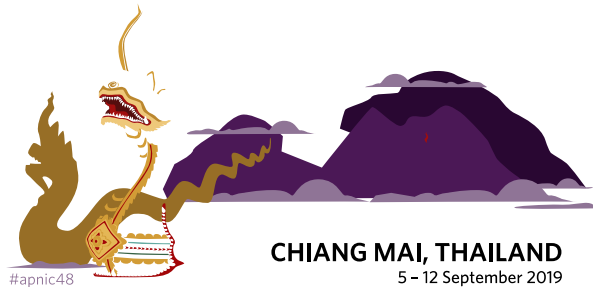
2019 NRO NC Election

- Dr. Bhumindr Butr-Indr as Election Chair (appointed by EC)

- George Kuo and Connie Chan as Election Officers (appointed by EC)

- Wita Laksano and Zen Ng as Election Tellers (appointed by EC)

- Xxx and xxx as Election Scrutineers (appointed by Election Chair)

Notice of Dispute

- Any complaint regarding the conduct of the election must be lodged in writing with the Election Chair at the conference and be lodged no later than one hour before the scheduled Declaration of the Election

- Notices may only be lodged by Nominees or Members through their authorized voting representatives

- The Election Chair shall resolve the dispute at his discretion

APNIC **48**

APNIC 48

Nominees for 2019 NRO NC Election

Nominees for 2019 NRO NC Election

- Azadur Rahman Sarker

- Aftab Siddiqui

- N. Sudha Bhuvaneswari

- Asif Rasheed Dar

- Hasnine Wafiq

- Rajesh Ramachandran

- Mubashar Shahzad

- Md. Salah Uddin

- Mai The Phuong

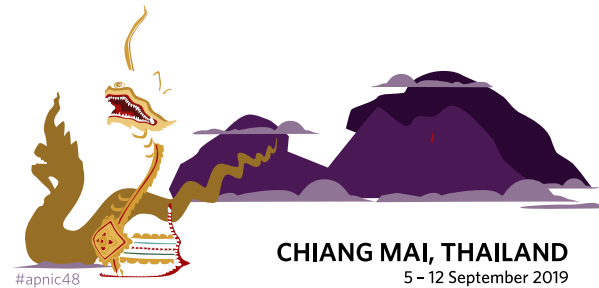# Nominees for 2019 NRO NC Election

2:00

On-site Voting

- Opening of the ballot box

- The ballot box will be moved to the Voting desk after the opening of on-site voting is announced

- The ballot box is supervised by the Election Tellers at all times

- Voting period
  - Starts: Now
  - Ends: 14:00 (UTC +7) Thursday, 12 September 2019

Thank you!

CHIANG MAI, THAILAND
5 – 12 September 2019