APNIC EC Meeting Minutes

Face-to-Face meeting, Melbourne, Australia

Tuesday, 18 February 2020, 09:25 – 13:33 (UTC +11)
Friday, 21 February 2020, 15:18 – 15:28 (UTC +11)

Meeting started at 09:25 (UTC +11), Tuesday, 18 February 2020

Present
> Benyamin Naibaho (in person on 18/02, not a member on 21/02)
> Gaurab Raj Upadhaya, Chair
> Kam Sze Yeung
> Kenny Huang, Treasurer
> Paul Wilson, Director General
> Rajesh Chharia, Secretary (remote on 18/02, not a member on 21/02)
> Sumon Ahmed Sabir (not a member on 18/02, in person on 21/02)
> Vincent Achie Atienza (not a member on 18/02, in person on 21/02)
> Yoshinobu Matsuzaki
> Yuedong Zhang (remote on 18/02 and 21/02)
>
> 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
9. APINC Survey
10. APNIC 49 EC Election procedures
11. Secretariat report
12. APNIC conference location
13. APNIC Foundation update
14. Strategic planning and risk register
15. Any other business
16. Next EC meeting
17. APNIC EC officer election

Minutes

1. Opening of meeting and declaration of quorum

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

The Chair declared the meeting open at 09:25 (UTC +11) on Tuesday, 18 February 2020, and noted that a quorum was present.

2. Agenda bashing

The Chair called for comments on the agenda. There were no new agenda items raised.

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.

Kam Sze Yeung declared that he was a member of the TWNOG Multistakeholder Steering Group (MSG).

Gaurab Raj Upadhaya declared that he was no longer a member of the Global Peering Forum program committee.

Yuedong Zhang noted that he has updated his employment details in the Register of Interests.

All other EC members present confirmed their entries in the Register of Interests are complete and correct.

Action item 2020-01: The Secretariat to update the Register of Interests.

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 2020-01: The EC resolved to adopt the minutes of the EC meeting of 3-4 December 2019.

5. Matters arising from the last meeting

The following matters were completed:

Action item 2019-06: The Secretariat to update the Register of Interests.

Action item 2019-08: The Secretariat will hold an open trial of the new voting system for Members who are interested in previewing the BigPulse voting interface before the coming election.

Action item 2019-09: The Secretariat to revise the strategic plan for the EC to review before the next EC meeting.

The following matters from the previous meetings will be covered in the agenda:

Action item 2019-07: The EC Chair and Craig Ng to draft a procedure document to clarify the role of the meeting chair. [See agenda item 6]

6. Chair update

The EC Chair noted that the next EC meeting is scheduled for the afternoon of 25 and 26 June 2020 in Kuala Lumpur, held immediately after ICANN's 68th Public Meeting. He reminded the EC members to complete the travel planner for 2020.

The EC Chair presented the 2019 EC travel expense report. The EC had overspent its travel budget for 2019 because of the increased airfares and the travels to the ICANN meeting in Kobe and the RIPE meeting in Reykjavik. The Chair felt that the engagements at these events were worthwhile and money well spent.

The EC Chair noted that he has been working with Craig Ng on a procedure document to clarify the role of the meeting chair. In the interest of succession planning, this policy will help maintain continuity. It is also good practice for all EC members to gain experience of running the EC meeting smoothly and efficiently.

7. WH&S update

Kam Sze Yeung spoke to the Workplace Health and Safety quarterly update. He also gave an update on the current status of the coronavirus monitoring and the related response plans within the office.

[Rajesh Chharia left the meeting at 09:57 (UTC +11)]

8. Financial reports

Nathan Furness from Deloitte joined the meeting via remote participation for this agenda item.

Nathan Furness presented the findings on the 2019 Audit Report (attached). The audit report noted that unqualified audit opinions were issued on the 2019 financial statements and the accounts gives a true and fair view of APNIC's financial position. This report also provided insights about some key audit matters to focus on.

It was noted that lots of work around risk management practices and fraud control systems have been implemented to strengthen internal controls within APNIC.

[Nathan Furness left the meeting at 10:20 (UTC +11)]

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

The EC noted and discussed the annual financial report for the year ended 31 December 2019. The EC noted APNIC's equity position of AUD 30.7M, represents a 7% increase in total assets through 2019. Total revenue was AUD 23.3M and total expenses were AUD 23M for the year. The total revenue and expenses ended 2019 are very close to the

approved budget. The final result for 2019 was an operating surplus of AUD 291K which exceeded the budget by AUD 47K.

As of 31 December 2019, APNIC had a total of 7,776 Members serving 53 economies. There were 838 new Members and 224 Members who had closed their accounts, representing a net increase of 614 Members during 2019.

> **Resolution 2020-02: The EC resolved to adopt the Special Purpose Financial Report for 2019 as representing the financial position of APNIC as at 31 December 2019, noting that APNIC is solvent and able to pay its debts as and when they fall due.**

Motion proposed by Kenny Huang; seconded by Paul Wilson. Passed unanimously.

> **Resolution 2020-03: The EC resolved to accept the Auditor's Report (as tabled at the meeting).**

Motion proposed by Kenny Huang; seconded by Paul Wilson. Passed unanimously.

9. **APNIC Survey**

Brenda Mainland from Survey Matters joined the meeting for this agenda item.

Brenda Mainland presented the survey proposal to the EC (attached).

[Brenda Mainland left the meeting at 11:00 (UTC +11)]

10. **APNIC 49 EC Election procedures**

The EC noted the 2020 EC Election procedures (attached).

> **Resolution 2020-04: The EC resolved to appoint Andre Gelderblom and Connie Chan of the APNIC Secretariat as Election Officers, and George Odagi and Tom Do as Election Tellers; and endorse the APNIC 49 EC Election procedures.**

Motion proposed by Yoshinobu Matsuzaki; seconded by Kenny Huang. Passed without objection.

Kam Sze Yeung abstained from voting.

11. **Secretariat report**

The DG spoke to the Secretariat Report presentation (attached) and the HR Report.

The EC discussed several items in the Secretariat Report.

The EC discussed the draft Annual General Meeting (AGM) agenda (attached).

> **Resolution 2020-05: The EC resolved to approve the draft agenda for the AGM of 21 February 2020.**

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

12. APNIC conference location

Tony Smith and Blandine Cousins joined the meeting for this agenda item. Tony Smith spoke to the conference update presentation.

[Confidential material redacted]

[Tony Smith and Blandine Cousin left the meeting at 12:43 (UTC +11)]

13. APNIC Foundation update

Duncan Macintosh joined the meeting for this agenda item. He spoke to the Foundation update presentation (attached).

> **Resolution 2020-07: The EC resolved that Paul Wilson be appointed as APNIC's representative at the 2020 Annual General Meeting of APNIC Foundation Limited, with the power to make decisions and to vote on such matters as he considers appropriate or expedient at such meeting.**

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

Paul Wilson abstained from voting.

> **Resolution 2020-08: The EC resolved that each of: (1) Sylvia Efi Widyantari Sumarlin; (2) Tian Suning; (3) Sharad Kumar Sanghi; (4) Danish Ali Lakhani; (5) Michael Martin Malone; and (6) Jun Murai be reappointed as a director of APNIC Foundation Limited, subject to each of them first consenting and agreeing to be so appointed, and that Paul Wilson be authorized to sign any document or resolution on behalf of APNIC Pty Ltd to give effect to this resolution.**

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

Paul Wilson abstained from voting.

[Duncan Macintosh left the meeting at 13:05 (UTC +11)]

14. Strategic Planning and Risk Register

The DG spoke to the updated strategic plan for 2020-2023 (attached).

The EC discussed the strategic plan at length. The Chair suggested the EC review the proposed targets in detail, and provide suggestions to the Secretariat.

Richard Brown then spoke to the updated risk register. The EC discussed the suggested changes. It is suggested that the EC will spend more time reviewing the risk register in the June EC meeting.

15. Any other business

a. EC correspondence

[Confidential material redacted]

b. Thanks to outgoing EC members

The Chair proposed a vote of thanks to outgoing EC members, Rajesh Chharia and Benyamin Naibaho, for their dedication and contributions to APNIC and the APNIC EC.

> **Resolution 2020-09: The EC resolved to express their sincere appreciation and deepest gratitude to Rajesh Chharia for his four years of service as Secretary to the APNIC EC and APNIC community. The EC also resolved to invite the outgoing Secretary to attend one further meeting in Kuala Lumpur as an observer, to participate and contribute to discussions, but without the right to vote.**

Motion proposed by Gaurab Raj Upadhaya; seconded by Paul Wilson. Passed unanimously.

> **Resolution 2020-10: The EC resolved to express their sincere appreciation and deepest gratitude to Benyamin Naibaho for his two years of service to the APNIC EC and APNIC community.**

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

16. Next EC meeting

The next EC meeting is scheduled for the afternoon of 25 and 26 June 2020 in Kuala Lumpur, held immediately after ICANN's 68th Public Meeting.

Meeting adjourned at 13:33 (UTC +11), Tuesday, 18 February 2020

Meeting resumed at 15:18 (UTC +11), Friday, 21 February 2020

Vincent Achie Atienza and Sumon Ahmed Sabir joined the meeting.

17. APNIC EC Officer Election

The EC welcomed the newly elected EC members, Vincent Achie Atienza and Sumon Ahmed Sabir.

The EC held officer elections, to take office immediately following the AGM.

In accordance with the APNIC By-laws, the Chair of the EC serves as Chair until his term as a member of the EC has expired. Gaurab Raj Upadhaya assumed the role of Chair of the Meeting. The presence of quorum was noted.

Nominations were called for the position of Treasurer. Kam Sze Yeung nominated Kenny Huang. There were no other nominations. Kenny Huang was elected unopposed as the Treasurer of the EC.

Nominations were called for the position of Secretary. Sumon Ahmed Sabir nominated Vincent Achie Atienza. There were no other nominations. Vincent Achie Atienza was elected unopposed as the Secretary of the EC.

Meeting closed at 15:28 (UTC +11), Friday, 21 February 2020.

Attachments:

    A. Register of interest
    B. [Confidential information redacted]
    C. 2019 Audit Report presentation
    D. 2019 special purpose financial report and auditor's report
    E. 2019 annual financial report and presentation
    F. December 2019 investment report and commentary
    G. Survey proposal presentation
    H. APNIC 49 EC election procedures
    I. Secretariat report and presentation
    J. [Confidential information redacted]
    K. Draft APNIC Annual Report 2019
    L. Draft APNIC Activity Plan 2020
    M. APNIC 49 AGM draft agenda
    N. [Confidential information redacted]
    O. APNIC Foundation update presentation
    P. APNIC Strategic Plan 2020-2023
    Q. [Confidential information redacted]

Agenda Item 3
Declaration of Interests

APNIC EC Register of Interests

Declaration of interests of EC members

This register records the interests of EC members, which may conflict with the EC members' duties to APNIC. This register is accurate as at **5 January 2020**.

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
- Board Member of Internet Foundation Nepal

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:

- Chair and 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 APNOG/APIA
- Member of JANOG Committee
- Technical Advisor of JPCERT/CC
- Contact person at IIJ Europe (RIPE member) for RIPE

- Ph.D. student of Keio University Graduate School of Media Design
- TAC (Technical Advisory Council) of Team Cymru, Inc.

Yuedong Zhang declared that he currently holds the following position:

- Employee of CNCERT/CC as Deputy Chief Engineer, under the Ministry of the Cyberspace Administration of China

Paul Wilson declared no conflict of interests.

Agenda Item 8
Financial reports

Deloitte.

APNIC Pty Ltd

Report to the Executive Committee for the year ended
31 December 2019

Deloitte.

Executive Committee

APNIC Pty Ltd

6 Cordelia Street

Brisbane South

QLD 4101

12 February 2020

We are pleased to present this report to the Executive Committee (the **"Committee")** of APNIC Pty Ltd (**"Entity")** in connection with the audit of the financial report for the year ended 31 December 2019.

We have substantially completed our audit, and subject to the satisfactory resolution of the matters detailed in the Executive Summary, we expect to issue an unmodified audit report. Included in the attached report are matters arising from our audit of the financial report of APNIC Pty Ltd (**"Entity")** for the year ended 31 December 2019 which we consider appropriate for the attention of the Executive Committee. These matters have been discussed with management of the Entity and their comments have been included, where appropriate.

We look forward to the Executive Committee meeting on 18 February 2020 where we will have the opportunity to discuss this report. In the interim, should you require clarification on any matter in this report please do not hesitate to contact us.

We would like to take this opportunity to extend our appreciation to management and staff for their assistance and cooperation during the course of our audit.

Yours faithfully

Nathan Furness
Audit Partner

Contents

Executive Summary

Purpose

This report has been prepared to assist the director in fulfilling their governance obligations relating to APNIC Pty Ltd for the year ended 31 December 2019.

This report includes only those matters which have come to our attention as a result of our audit procedures which we believe require the attention of the Committee.

Scope

We have conducted an audit of the financial report of APNIC Pty Ltd for the year ended 31 December 2019 (**"financial report"**) in accordance with the requirements below with the objective of expressing an opinion on the financial report.

- Australian Auditing Standards
- Corporations Act 2001

Status

Our audit of the financial report is substantially complete. We expect to issue an unmodified audit report on the financial report subject to:
- Completion of procedures relating to subsequent events up to the date of our audit opinion;
- Receipt of signed management representation letter; and
- Adoption of the financial report and signing by the director.

We have not identified any uncorrected misstatements that, in our judgement, either individually or in aggregate, could have a material effect on the financial report for the year ended 31 December 2019.

Further, in performing our audit we have not identified any significant deficiencies in internal control relating to the prevention and detection of fraud and error which would impact upon our ability to provide our opinion on the financial report.

We have however, noted some potential areas for improvement, the details of which has been shared with management. Those which we deem should be communicated to the Committee have been summarised in Section D of this report.

A. Audit focus areas

These areas were identified as a result of:

The risk assessment processes undertaken during the planning phase and throughout our engagement.

Our review of the previous auditors file and the understanding of the business risks faced by APNIC Pty Ltd based on discussions with management during the course of our audit.

Areas of Audit Focus	Risk Factors
Revenue recognition	*ASA 240 The Auditor's Responsibilities Relating to Fraud in an Audit of a Financial Report* paragraph 64 requires auditors to consider that the financial report may be materially misstated as a result of incorrect revenue recognition. Accordingly we consider revenue recognition as a specific identified risk.

Response and findings

We obtained sales transaction listing for the year, and reconciled the sales recorded to invoices and agreed subscription dates for members and non-members.

We also obtained a general ledger listing of work in progress at year end and recalculated the revenue deferred in accordance with accounting standards.

Under AASB 15 ("Revenue from Contracts with Customers"), revenue is to be recognised when performance obligations are satisfied which is either at a point in time or overtime depending on the nature of the obligation. In applying the standard to sign up fees recorded by the Entity, it was observed that sign up fees were incorrectly calculated as they were fully recognised as revenue when received (at a point in time) rather then over the related subscription period (i.e. overtime). We calculated the difference in the accounting treatment and it was clearly trivial and below our reportable threshold.

A. Audit focus areas (continued)

Areas of Audit Focus	Risk Factors
Management override of controls	*ASA 240 The Auditor's Responsibilities Relating to Fraud in an Audit of a Financial Report* requires consideration of the risk of material misstatement due to management override of controls.

Response and findings

We have tested the appropriateness of the journal entries recorded in the general ledger and other adjustments made in the preparation of the financial statements. Part of our procedures involved making inquiries of individuals involved in the financial reporting process about inappropriate or unusual activity relating to the processing of journal entries, other adjustments or fraud.

We have reviewed the balance sheet reconciliations for the key accounts and ensured variances were appropriately identified and documented. We have also verified if these reconciliations have been reviewed by an independent person with the appropriate delegated authority.

We also considered key areas where management could exhibit bias (e.g. balances driven by estimates, such as provisions and accruals).

Further, we engaged our computer assurance specialists to perform evaluation of some of the key internal controls of the systems used by the Entity, focusing particularly on user access and security settings. A summary of the observations we deemed are relevant for the Committee have been included in Section D of this report.

Throughout our testing we did not note any indicators of material misstatement due to management override of controls.

B. Other focus areas

Non-compliance with applicable laws and regulations

In performing our audit of APNIC Pty Ltd for the year ended 31 December 2019 we have not become aware of any instances of non-compliance with applicable laws and regulations that would have an impact on the determination of material amounts and disclosures in the financial report.

Use of specialists

As planned, specialists assisted in the audit to the extent we considered necessary:

- Computer assurance specialists participated in the evaluation of internal control and in the use of our computerised audit applications

- Tax specialists participated in assessing the adequacy of the tax provision and related balance sheet accounts
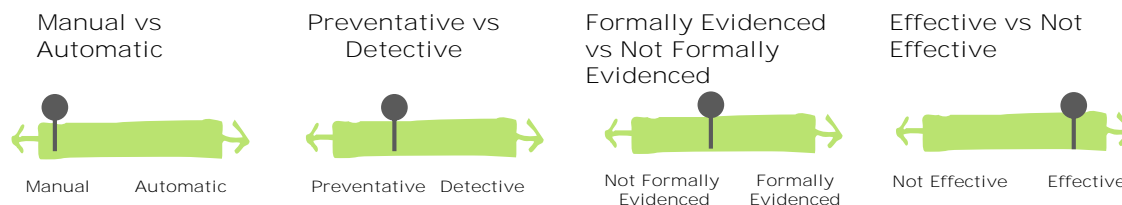
C. Internal control

As part of the audit we obtain an understanding of the internal controls relevant to the audit, to a sufficient degree so as to enable us to identify and assess the risks of material misstatement of the financial report. Our audit focuses on internal controls relevant to financial reporting, which includes IT general controls.

Assessment of internal control

In performing our audit of APNIC Pty Ltd for the year ended 31 December 2019, whilst we have not identified any significant deficiencies in internal control relating to the prevention and detection of fraud and error, we did note a number of control observations which have been summarized below.

Manual vs Automatic	Preventative vs Detective	Formally Evidenced vs Not Formally Evidenced	Effective vs Not Effective
Manual ⟵ ⟶ Automatic	Preventative ⟵ ⟶ Detective	Not Formally Evidenced ⟵ ⟶ Formally Evidenced	Not Effective ⟵ ⟶ Effective

#	Observation	Risk	Recommendations
1.	Segregation of Duties (NetSuite) Four users have privileges on the NetSuite application that allows a user to change or add access rights to other users.	User administrators that are part of the finance team might be able to make changes to their own access and as a result this might lead to unauthorised or conflicting access being assigned to a user within the Finance team. The lack of segregation between critical roles may lead to fraudulent transactions going undetected and effect the integrity of financial data.	The administration of user access rights on the NetSuite application should be assigned to individuals that are independent of the Finance team. Where this is not possible, management should consider implementing mitigating detective controls to periodically review the access of the Finance team, as well as the financial transactions performed (audit logs) on NetSuite. This review should be performed by an independent individual.
2.	Access Rights Review (NetSuite) User access rights are not reviewed on a periodic basis.	Over time, users may have accumulated access rights over and above the rights necessary to perform their daily tasks. This increases the risk of unauthorised access and possible security breaches.	We recommend that access rights review should be performed periodically.

D. Summary of uncorrected misstatements and disclosure deficiencies

Summary of uncorrected misstatements

We have not identified any uncorrected misstatements that management believe could, either individually or in aggregate, have a material effect on the financial report for the year ended 31 December 2019. We agree with **management's** conclusion.

Uncorrected misstatements identified	Assets Dr/(Cr) ($)	Liabilities Dr/(Cr) ($)	Equity Dr/(Cr) ($)	Profit and Loss Dr/(Cr) ($)
None				

Summary of disclosure deficiencies

No material uncorrected disclosure deficiencies were detected in the financial report. The following disclosure deficiencies remain uncorrected in the financial report and management has determined that these do not result in the material misstatement of the financial report or non compliance with the applicable legislative framework.

E. Independence Declaration

APNIC PTY LTD

6 Cordelia Street
Brisbane South
QLD 4101

Auditor's Independence Declaration to APNIC Pty Ltd

In accordance with section 307C of the Corporations Act 2001, I am pleased to provide the following declaration of independence.

As lead audit partner for the audit of financial report of APNIC Pty Ltd for the year ended 31 December 2019, I declare that to the best of my knowledge and belief, there have been no contraventions of:

- the auditor independence requirements of the Corporations Act 2001 in relation to the audit

- any applicable code of professional conduct in relation to the audit.

Yours faithfully

Deloitte Touche Tohmatsu

Nathan Furness
Partner

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F. Financial reporting update

Overview

This section of the financial reporting update sets out the not-for-profit ("NFP") specific considerations.

The diagram below provides an overview of the NFP-specific matters covered in this section.

1 | New Accounting Standards

Standards effective for period ends commencing 1 January 2019 for Not-for-Profit entities:

1.1 | AASB 15 *Revenue from Contracts with Customers &* AASB 1058 *Income of Not-for-Profit Entities**

1.2 | AASB 16 *Leases*

Standards effective for period ends commencing on or after 30 June 2020:

1.3 | AASB 2019-4 *Disclosure in Special Purpose Financial Statements of Not-for-Profit Private Sector Entities on Compliance with Recognition and Measurement Requirements*

2 | AASB Developments

2.1 | AASB ED 291 **– Definition of a 'not**-for-**profit' entity**

2.2 | Removal of Special Purpose Financial Statements (SPFS) for NFP entities

New Accounting Standards

AASB Developments

Regulatory & Governance matters

Economic advisory

3 | Regulatory considerations

3.1 | ASIC reforms to whistle blower policy

3.2 | Superannuation payments on annual leave loading

4 | Governance matters

4.1 | ACNC self-assessment checklist

4.2 | NFP **–** AICD governance principles

5 | Economic advisory

Deloitte Access Economics regularly produces leading reports on current and future trends in the sector. Examples include:

- The economic benefits of social inclusion, August 2019
- Economic and social impact of increasing **Australia's humanitarian intake, August** 2019
- Research for the ACNC on a range of options to align the regulatory obligations of the ACNC and states and territories

*Note deferral of AASB 1058 for application to research grants until periods beginning on or after 1 July 2019

F. Financial reporting update (continued)

1 | New Accounting Standards

1.1 | New income recognition requirements (AASB 1058/AASB 15)

1 Overview of Changes

The new income recognition requirements shifts the focus from a reciprocal/non-reciprocal basis to a basis of assessment that considers the enforceability of a contract and the specificity of performance obligations

2 AASB 1058 Requirements

The core principle of the new income recognition requirements is that where **there is an 'enforceable'** contract with a customer with **'sufficiently specific'** performance obligations, income would be recognised when (or as) the performance obligations are satisfied under AASB 15

Should the transaction fall outside of the scope of AASB 15, then income (being the residual amount determined by **the assets and 'related amounts' recognised) would be** recognised immediately under AASB 1058

Peppercorn Leases
AASB 2018-8: Right-of-Use Assets of NFP entities allowing a temporary option to measure peppercorn leases at cost or fair value

Overview
On 22 December 2016, the AASB issued new income recognition requirements for not-for-profit (**"NFP"**) entities via:
- AASB 1058: Income of Not-For-Profit Entities
- AASB 2016-8: NFP-specific guidance in AASB 15
- AASB 2016-7: Deferral of AASB 15

The new Standards was effective for periods beginning 1 January 2019

3 AASB 15 NFP Guidance

The AASB has issued NFP-specific implementation guidance in AASB 15 on:
- Enforceability of agreement
- Sufficiently specific of a performance obligation
- Separate recognition of a donation component

4 Transition approach

NFP entities have a choice of applying AASB 1058 retrospectively or to use a modified transition approach (no restatement of comparatives)

F. Financial reporting update (continued)

1 | New Accounting Standards

1.2 | AASB 16 - Leases at significantly below-market terms (Peppercorn / Concessionary leases)

Dec 2016

AASB 1058
AASB 16

AASB 1058/AASB 16 Original Requirements
AASB 1058 made amendments to AASB 16 to require not-for-profit entities to measure right-of-use assets at initial recognition at fair value in respect of leases that have significantly below-market terms and conditions principally to enable the entity to further its objectives
<u>Initial Recognition</u>:
- Right-of-Use Asset at Fair Value
- Lease Liability at Present Value of Lease Payments
- Difference = Income upfront

October 2019

AASB issued Fatal-Flaw Review Draft of Amending Standard to allow right-of-use (ROU) assets under concessionary lease to be treated as a separate class of ROU asset

Comments due: 29 Nov 2019

AASB 1058
Income of Not-for-Profit Entities

AASB 2018-8
Right-of-Use Assets of Not-for-Profit Entities

AASB 2018-8

Dec 2018

Lease Liability at Present Value of Lease Payments

Right-of-Use Asset at Cost / Fair Value

AASB 2018-8 Amendments
AASB 2018-8 provides a temporary option for not-for-profit lessees to elect to measure a class (or classes) of right-of-use **assets arising under 'concessionary leases' at initial recognition,** either:
- Fair Value; or
- Cost

If an entity chooses the cost option, additional disclosures are **required for each material 'concessionary / peppercorn lease' on the nature and terms and the entity's dependence on such leases**

F. Financial reporting update (continued)

1 | New Accounting Standards

1.2 | AASB 16 – Comparison between cost and fair value model

Current Requirements
AASB 117

Balance Sheet	Year 0 $	Year 1 $
Lease assets	-	-
Lease liabilities	-	-

Income statement	Year 0 $	Year 1 $
Lease payments	-	(100)
EBITDA	-	(100)
Depreciation	-	-
Finance cost	-	-
Profit before tax	-	(100)

New Requirements – AASB 1058 & AASB 16

Cost Model

Balance Sheet	Year 0 $	Year 1 $
Lease assets	379	303
Lease liabilities	379	317

Income statement	Year 0 $	Year 1 $
Income	-	-
EBITDA	-	-
Depreciation	-	(76)
Finance cost	-	(38)
Profit before tax	-	(114)

Fair Value Model

Balance Sheet	Year 0 $	Year 1 $
Lease assets	227,447	181,958
Lease liabilities	379	317

Income statement	Year 0 $	Year 1 $
Income	227,068	-
EBITDA	-	-
Depreciation	-	(45,489)
Finance cost	-	(38)
Profit before tax	227,068	(45,527)

Additional disclosures – Temporary cost option

If an entity chooses the cost option for its 'concessionary / peppercorn lease', additional disclosures are required for each material lease on the nature and terms and the entity's dependence on such leases

Dependence on lease to enable entity to further its objectives

Lease payments

Description of underlying assets

Nature & terms of leases

Lease term

Restrictions on use of underlying asset

F. Financial reporting update (continued)

1 | New Accounting Standards

1.3 | AASB 2019-4 *Disclosure in SPFS of Compliance with Recognition and Measurement Requirements*

This Standard amends AASB 1054 to require NFP private sector entities that are preparing special purpose financial statements (SPFS) to disclose on compliance with recognition and measurement (R&M) requirements

Effective Date:
Periods ending on or after 30 June 2020

Disclosure of basis:
The basis on which the decision to prepare SPFS was made

Disclosure of application of the consolidation and equity accounting requirements:
Disclose whether or not it has consolidated / equity accounted its investments in accordance with AASB 10 / AASB 128

- If the entity has not, it shall disclose that fact and the reasons why; or
- If no assessment has been made as the entity was not required by legislation to do so, it shall disclose that fact

Disclosure of compliance with recognition & measurement in Accounting Standards:

- For each material accounting policy that does not comply with the R&M requirements in AAS: disclose an indication of where it does not comply, or disclose that an assessment of compliance has not been made
- Whether the SPFS overall comply with the R&M requirements in AAS, or state that such an assessment has not been made.

Applicable to:

- Medium and large charities registered with the ACNC preparing SPFS
- NFP entities that are lodging SPFS with ASIC under the Corporations Act 2001 (e.g. companies limited by guarantee).

F. Financial reporting update (continued)

2 | AASB developments

2.1 | AASB ED 291 – Definition of a 'not-for-profit' entity

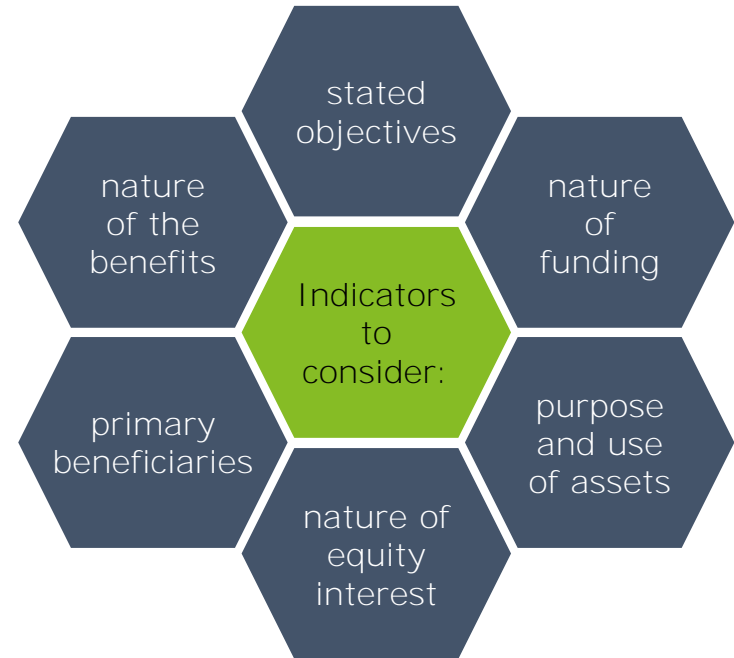**Current definition of 'not-for-profit entity':**

an entity whose principal objective is not the generation of profit

Proposed definition
(based on NZ 'public benefit entity'):

an entity whose:

- *primary objective is to provide goods or services for community or social benefit*
- *where any equity has been provided with a view to supporting that primary objective rather than for a financial return to equity holders*

Indicators to consider:

- stated objectives
- nature of the benefits
- nature of funding
- primary beneficiaries
- purpose and use of assets
- nature of equity interest

Exposure Draft
(AASB ED 291):
Issued June 2019

Location:
Implementation Guidance
in AASB 1057

Standard:
Planned to be
issued in Q1 2020

F. Financial reporting update (continued)

2 | AASB developments

2.2 | Removal of Special Purpose Financial Statements **("SPFS")** for NFP entities

While the work on the removal of SPFS for for-profit entities are currently underway with the standard expected to be issued in Q2 of 2020, the AASB has reconfirmed its decision at its February 2019 meeting that it is appropriate to progress the for-profit project in advance of the NFP project to improve the financial reporting framework.

The AASB recognises that the journey for NFP private sector entities will be very different to that of the for-profit private sector. In this regard, the AASB will continue to extensively research optimal outcomes, collaborate with regulators, and regularly consult with NFP entities to ensure a simple and fair framework and a smooth transition for NFP private sector entities. Per the most recent AASB Work Program (21 Nov 2019), the AASB has planned for further outreach until Q2 of 2020.
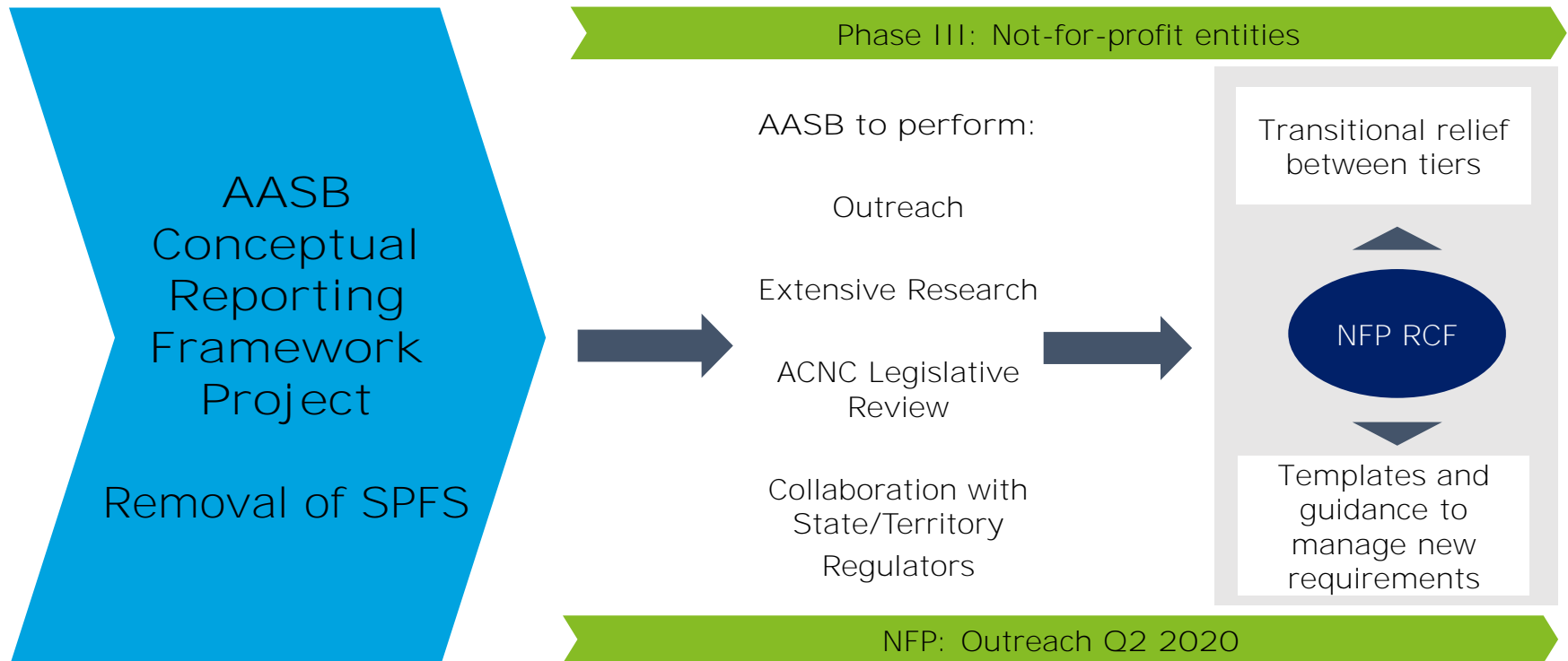
F. Financial reporting update (continued)

3 | Regulatory considerations

3.1 | Reforms to whistle blower policy

Content of Whistle-blower Policy

Includes:

- the protections available to whistleblowers
- to whom disclosures may be made, how they may be made and how they will be investigated
- how the company will support whistleblowers and protect them from detriment and how it will ensure the fair treatment of employees who are mentioned in disclosures, and
- how the policy is to be made available

Overview of Regulations

Treasury Laws Amendment (Enhancing Whistleblower Protections) Bill 2019 (Cth) received Royal Ascent on 12 March 2019

ASIC Relief: Charities/NFPs with <$1 million annual revenue exempted from having whistle blower policy

Public & large proprietary companies including not-for-profits and charities that meet these criteria (for example, public companies limited by guarantee) must have a whistleblower policy on or before 1 January 2020 to avoid penalties

Training of Employees

Includes:

1. Eligible recipients – Senior managers, officers, and auditors, actuaries, tax agents and BAS agents
   - process set out in **the company's** whistleblower policy to respond to disclosures

2. All staff
   - How the whistleblower regime works
   - Process for disclosing and investigating certain matters
   - Protections provided

Assessment of current procedures

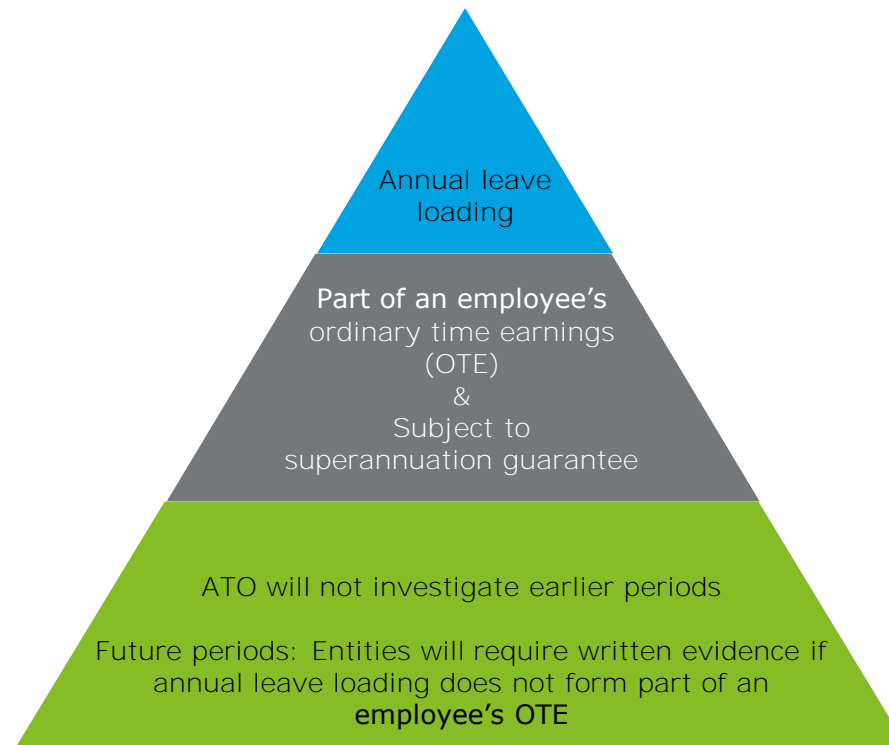Conduct thorough analysis of any existing whistleblower procedures

F. Financial reporting update (continued)

3 | Regulatory considerations

3.2 | Superannuation payments on annual leave loading

Superannuation Guarantee Charge (SGC) – Superannuation payments on annual leave loading

Annual leave loading

Part of an employee's ordinary time earnings (OTE) & Subject to superannuation guarantee

ATO will not investigate earlier periods

Future periods: Entities will require written evidence if annual leave loading does not form part of an **employee's OTE**

ATO Superannuation Guarantee Ruling SGR 2009/2 : 12 March 2019

F. Financial reporting update (continued)

4 | Governance

4.1 | ACNC self-assessment checklist

- Deloitte was engaged by the Australian Charities and Not-for-profits Commission (ACNC) to build a Governance Toolkit to help charities (especially small and medium-sized charities) to manage risks across four domains: Financial abuse, protecting people, cybersecurity, and working with partners.

- It is a great example of our ability to leverage deep expertise across a range of risk domains, giving a client a one-stop-shop for an integrated, holistic solution. The work was delivered by our blended team from Risk Advisory and Social Impact.

- **The toolkit launch in August 2019 is on the ACNC's website**
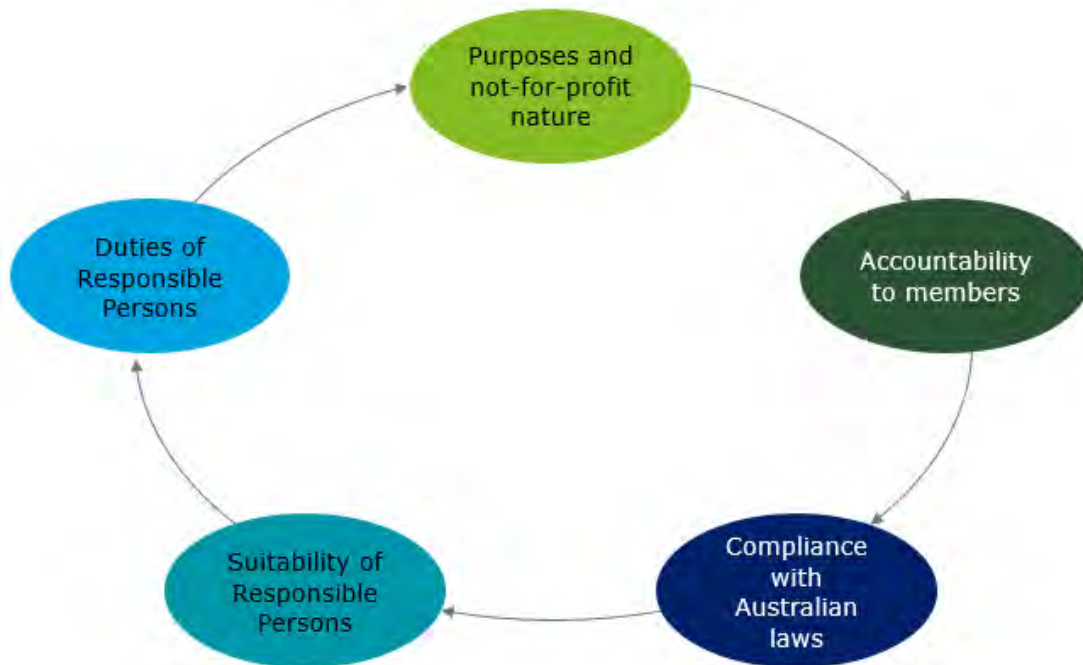
F. Financial reporting update (continued)

4 | Governance

4.2 | NFP – AICD governance principles

1. Purpose and strategy

The organisation has a clear purpose and a strategy which aligns its activities to its purpose

2. Roles and responsibilities

There is clarity about the roles, responsibilities and relationships of the board

3. Board composition

The board's structure and composition enable it to fulfil its role effectively

4. Board effectiveness

The board is run effectively and its performance is periodically evaluated

5. Risk management

Board decision making is informed by an understanding of risk and how it is managed

6. Performance

The organisation uses its resources appropriately and evaluates its performance

7. Accountability and transparency

The board demonstrates accountability by providing information to stakeholders about the organisation and its performance

8. Stakeholder engagement

There is meaningful engagement of stakeholders and their interests are understood and considered by the board

9. Conduct and compliance

The expectations of behaviour for the people involved in the organisation are clear and understood

10. Culture

The board models and works to instil a culture that supports the **organisation's purpose and strategy**

G. Cyber - Resiliency

Human error and admin privileges Accidental or malicious acts by staff are a factor in many breaches. Organisations need to continue the focus on staff education and cultural change, whilst also considering privilege access management to tightly control the use of privileged accounts.

IT & security hygiene
A significant number of cyber attacks leverage basic weaknesses in hygiene, such as missing security patches, excessive access to data, weak system configurations, ineffective backups or weak passwords. Organisations need to double-down on getting the basics in order.

Sensitive data has a large footprint
In many organisations, sensitive data is still spread widely across many systems, email, cloud services and shared drives. Organisations need to focus on understanding where key data is and the level of risk. In some instances, organisations will need to consolidate.

Passwords are 'failing' as a control
Studies have shown that the average person has 120 online accounts but only 5 passwords. There is widespread re-use of passwords between personal and work context, **leaving organisations at risk of 'credential stuffing' where** attackers replay stolen passwords from breaches such as Yahoo! or Ashley Maddison. **'Multifactor authentication'** is increasingly essential for key systems.

Ecosystem risk
Growing specialisation in the economy is driving up the number of third-parties that have access to data or systems. Organisations need to focus on understanding the entire landscape of third-parties and managing the risk in the ecosystem.

Detection & Response
A significant number of breached organisations are only made aware of the compromise by an external party (e.g. a journalist) and have in some cases been breached for more than 6 months before knowing. Organisations need to continue to focus on effective early detection of cyber attacks and response plans.

APNIC Pty Ltd

ABN 42 081 528 010

Special purpose annual report
For the year ended 31 December 2019

I, Paul Byron Wilson, certify that this Annexure ('A') of 26 pages referred to in Form "Copy of financial statements and reports", are a true copy of the Annual Reports.

Paul Byron Wilson
Director
Dated this 14 day of February 2020

APNIC Pty Ltd
ABN 42 081 528 010
Special purpose annual report - 31 December 2019

Contents

Your director presents his report on APNIC Pty Ltd (hereafter referred to as the "Company") for the year ended 31 December 2019.

Director
Paul Byron Wilson was the director of APNIC Pty Ltd during the whole of the financial year and up to the date of this report.

Principal activities
The Company's principal continuing activity during the year was to act as a non-profit internet registry organisation for the Asia-Pacific region. There was no significant change in the nature of the activity of the Company during the year.

Dividends
The Company does not pay or declare dividends due to its non-profit status as determined by its constituent documents.

Review of operations
The profit before tax amounted to $2,460,672 (2018: $1,013,037). The fair value increment recognised from financial assts accounted for as fair value through profit or loss in 2019 was $2,169,284, compared to the fair value decrement of $73,475 in 2018.

Significant changes in the state of affairs
There have been no significant changes in the state of affairs of the Company during the year.

Matters subsequent to the end of the financial year
No matter or circumstance has arisen since 31 December 2019 that has significantly affected the Company's operations, results or state of affairs, or may do so in future years.

Likely developments and expected results of operations
In the foreseeable future it is expected that the Company will continue its principal activity as described above.

Environmental regulation
The Company is not affected by any significant environmental regulation in respect of its operations.

Insurance of officers
During the financial year, APNIC Pty Ltd paid a premium of $21,525 (2018: $20,500) to insure the director, officeholders (including executive council) and staff of the Company.

The liabilities insured are legal costs that may be incurred in defending civil or criminal proceedings that may be brought against the officers in their capacity as officers of entities in the Company, and any other payments arising from liabilities incurred by the officers in connection with such proceedings. This does not include such liabilities that arise from conduct involving a wilful breach of duty by the officers or the improper use by the officers of their position or of information to gain advantage for themselves or someone else or to cause detriment to the Company. It is not possible to apportion the premium between amounts relating to the insurance against legal costs and those relating to other liabilities.

Proceedings on behalf of the Company

No person has applied to the Court under section 237 of the *Corporations Act 2001* for leave to bring proceedings on behalf of the Company, or to intervene in any proceedings to which the Company is a party, for the purpose of taking responsibility on behalf of the Company for all or part of those proceedings.

No proceedings have been brought or intervened in on behalf of the Company with leave of the Court under section 237 of the *Corporations Act 2001*.

Auditor
Deloitte Touche Tohmatsu commences in office in accordance with section 327 of the *Corporations Act 2001*.

Auditor's independence declaration
A copy of the auditor's independence declaration as required under section 307C of the *Corporations Act 2001* is set out on page 3.

Paul Byron Wilson
Director

Brisbane
14 February 2020

Deloitte.

Executive Committee
APNIC Pty Ltd
6 Cordelia Street,
SOUTH BRISBANE, QLD, 4101

14 Febuary 2020

The Executive Committee

Auditor's Independence Declaration to APNIC Pty Ltd

In accordance with section 307C of the Corporations Act 2001, I am pleased to provide the following declaration of independence.

As lead audit partner for the audit of financial report of APNIC Pty Ltd for the year ended 31 December 2019, I declare that to the best of my knowledge and belief, there have been no contraventions of:

   i. the auditor independence requirements of the Corporations Act 2001 in relation to the audit ; and

   ii. any applicable code of professional conduct in relation to the audit.

Yours faithfully

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

Nathan Furness
Partner
Chartered Accountant

APNIC Pty Ltd
Statement of Profit or Loss and Other Comprehensive Income
For the year ended 31 December 2019

	Notes	2019 $	2018 $
Revenue from contracts with customers	3	21,853,300	20,981,059
Other income	4(a)	1,417,474	1,306,052
Other gains/(losses) - net	4(b)	(8,420)	6,274
Employee benefits expense		(13,171,228)	(12,161,645)
Professional fees		(1,820,443)	(1,458,388)
Travel expenses		(2,390,238)	(2,165,459)
Depreciation expense		(862,055)	(856,029)
Communications and meeting expenses		(786,889)	(748,854)
Contribution to APNIC Foundation		(762,179)	(732,710)
Computer expenses		(1,067,957)	(817,599)
Contributions to ICANN		(263,386)	(278,866)
Insurance		(206,523)	(189,738)
Donations and sponsorships		(526,745)	(630,401)
Occupancy costs		(399,470)	(396,698)
Other expenses		(713,853)	(770,486)
Profit before tax and fair value loss on financial assets		**291,388**	**1,086,512**
Fair value profit / (loss) on financial assets through profit or loss		2,169,284	(73,475)
Profit before income tax		**2,460,672**	**1,013,037**
Income tax (expense)/benefit		(556,953)	99,935
Profit/(loss) for the year		**1,903,719**	**1,112,972**
Other comprehensive income		-	-
Other comprehensive income for the year, net of tax		-	-
Total comprehensive income for the year		**1,903,719**	**1,112,972**
Total comprehensive income for the year is attributable to:			
Owners of APNIC Pty Ltd		**1,903,719**	**1,112,972**

The above statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes.

4

ASSETS	Notes	2019 $	2018 $
Current assets			
Cash and cash equivalents	5	4,028,308	4,298,431
Trade and other receivables	6	5,643,607	5,155,361
Other current assets	7	836,559	665,666
Total current assets		**10,508,474**	**10,119,458**
Non-current asset			
Financial assets	8	27,702,841	24,861,226
Property, plant and equipment	9	7,149,423	7,472,353
Total non-current asset		**34,852,264**	**32,333,579**
Total assets		**45,360,738**	**42,453,037**
Current liabilities			
Trade and other payables	11	1,167,175	1,241,761
Provisions	12	1,801,421	1,743,961
Unearned income	13	10,570,081	10,227,970
Total current liabilities		**13,538,677**	**13,213,692**
Non-current liability			
Net deferred tax liabilities	10	720,729	163,776
Provisions	12	376,628	254,584
Total non-current liability		**1,097,357**	**418,360**
Total liabilities		**14,636,034**	**13,632,052**
Net assets		**30,724,704**	**28,820,985**
Equity			
Contributed equity	14	1	1
Retained earnings		30,724,703	28,820,984
Total equity		**30,724,704**	**28,820,985**

The above statement of financial position should be read in conjunction with the accompanying notes.

APNIC Pty Ltd
Statement of Changes in Equity
For the year ended 31 December 2019

	Share capital $	Other Reserves $	Retained Earnings $	Total equity $
Balance at 1 January 2018	1	1,156,552	26,551,460	27,708,013
Adjustment on adoption of AASB 9 (net of tax)	-	(1,156,552)	1,156,552	-
Restated total equity at the beginning of the financial year	**1**	**-**	**27,708,012**	**27,708,013**
Profit for the year	-	-	1,112,972	1,112,972
Total comprehensive income for the year	**-**	**-**	**1,112,972**	**1,112,972**
Balance at 31 December 2018	**1**	**-**	**28,820,984**	**28,820,985**

	Share capital $	Other Reserves $	Retained Earnings $	Total equity $
Balance at 1 January 2019	1	-	28,820,984	28,820,985
Profit for the year	-	-	1,903,719	1,903,719
Other comprehensive income for the year, net of income tax	-	-	-	-
Total comprehensive income for the year	**-**	**-**	**1,903,719**	**1,903,719**
Balance at 31 December 2019	**1**	**-**	**30,724,703**	**30,724,704**

The above statement of changes in equity should be read in conjunction with the accompanying notes.

	Notes	2019 $	2018 $
Cash flows from operating activities			
Receipts from customers		22,454,352	22,653,493
Payments to suppliers and employees		(21,658,256)	(20,141,716)
Grants received		-	32,312
Interest received		148,918	196,868
Net cash flows from operating activities	18	**945,014**	**2,740,957**
Cash flows from investing activities			
Transfers to short term deposits		-	-
Payments for property, plant and equipment		(548,369)	(601,930)
Proceeds from sale of property. Plant and equipment		5,563	7,075
Purchase of financial assets		(672,331)	(1,500,000)
Net cash (outflow) from investing activities		**(1,215,137)**	**(2,094,855)**
Net (decrease)/increase in cash and cash equivalents		(270,123)	646,102
Cash and cash equivalents at the beginning of the year		4,298,431	3,629,427
Effects of exchange rate changes on cash and cash equivalents		-	22,902
Cash and cash equivalents at the end of the year	5	**4,028,308**	**4,298,431**

The above statement of cash flows should be read in conjunction with the accompanying notes.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

1. General Information

A description of the nature of the entity's operations and its principal activities is included in the director's report on page 1, which is not part of these financial statements.

APNIC Pty Ltd is a Company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business is:

6 Cordelia Street,
South Brisbane, Queensland, 4101.

The financial statements were authorised for issue by the director on 18 February 2020. The director has the power to amend and reissue the financial statements.

2. Summary of significant accounting policies

This note provides a list of all significant accounting policies adopted in the preparation of these financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for APNIC Pty Ltd.

a) Basis of preparation

(i) Special purpose annual report

In the director's opinion, the Company is not a reporting entity because there are no users dependent on general purpose financial reports.

This is a special purpose annual report that has been prepared at the request of the Executive Committee for the interest of the APNIC members and for the purpose of complying with the Corporations Act 2001 requirements to prepare and distribute a financial report to the members and must not be used for any other purpose.

The financial report has been prepared in accordance with *Corporations Act 2001* and with the recognition and measurement principles of all applicable Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board. It contains the disclosures that are mandatory under the following Accounting Standards:

AASB 101: Presentation of Financial statements
AASB 107: Cash Flow Statements
ASSB 108: Accounting Policies, Changes in Accounting Estimates and Errors
AASB 1054: Australian Additional Disclosures

Accounting Standard AASB 10 'Consolidated Financial Statements' has not been adopted in the preparation of the special purpose report.

(ii) Historical cost convention

These financial statements have been prepared under the historical cost convention, except for financial assets and liabilities measured at fair value.

(iii) New and amended standards effective in the current year

The Company early adopted the following standards in January 2018 that were effective from 1 January 2019:

- AASB 15 Revenue from Contracts with customers
- AASB 1058 Income Not-for-Profit Entities

The Company disclosed the impact of the first time adoption of these accounting standards in the prior year financial statements.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

a) Basis of preparation (continued)

(iii) New and amended standards effective in the current year (continued)

From 1 January 2019 the Company adopted the new leasing standard AASB 16. The application of AASB 16 has resulted in the following key changes for almost all leases, with the only exceptions being short term and low-value leases:

- Leases are recognised on the statement of financial position by lessees, as the distinction between operating and finance leases is removed.

- Lessees are required to recognise assets and liabilities for all leases on balance sheet with a term of more than 12 months, unless the underlying asset is of low value.

- Assets and liabilities arising from a lease are initially measured on a present value basis. The measurement includes non-cancellable lease payments (including inflation-linked payments), and also includes payments to be made in optional periods if the lessee is reasonably certain to exercise an option to extend the lease, or not to exercise an option to terminate the lease.

On initial application of AASB 16, the Company has made use of the practical expedient available on transition to AASB 16 not to reassess whether a contract is or contains a lease. Accordingly, the definition of a lease in accordance with AASB 117 and IFRIC 4 will continue to apply to those leases entered into or modified before 1 July 2019. The impact of first-time adoption of AASB 16 is set out below:

- On adoption and throughout the year the Company had no non-cancellable operating lease commitments.

- All the leases of the Company meet the definition of short term leases or leases of low value as outlined by AASB16 and are therefore exempt from the standard.

- For short term leases (lease term of 12 months or less) and leases of low value assets (such as personal computers and office furniture), the Company has opted to recognise a lease expense on a straight-line basis as permitted by AASB 16 (where applicable).

b) Foreign currency translation

(i) Functional and presentation currency

Items included in the financial statements are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The financial statements are presented in Australian dollars ($), which is the Companies functional and presentation currency.

(ii) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

c) Revenue recognition

The Company has applied Income Recognition methodology provided both under AASB 1058 as well as AASB 15 for the purpose of recognizing Income.

Income Recognition under AASB 15

Under AASB 15, the Company recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the entity and specific criteria have been met for each of the Company's activities as described below. The Company bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Income Recognition and Application of AASB 1058

AASB 1058 provides that an entity receiving certain 'volunteer services' or entering to 'certain transactions' and where the consideration to acquire an asset is significantly less than the fair value of the asset. In the latter case, the entity will recognise and measure the asset at fair value in accordance with the applicable Australian Accounting Standard (e.g. AASB 116 Property, Plant and Equipment).

AASB 1058 does not apply when a transaction completely falls under the scope of AASB 15 as a contract with a customer. This is when the transaction has the all the following characteristics:

- The Transaction is enforceable and has sufficiently specific obligations;
- The goods or services are not retained by the entity for its own use; and
- The Transaction is neither a donation transaction nor a volunteer service

Accordingly, AASB 1058 applies to entity's transactions that are not ordinarily contracts at Fair Value with customers. The timing of income recognition depends on whether such a transaction gives rise to a liability or other performance obligation (a promise to transfer a good or service), or a contribution by owners, related to an asset (such as cash or another asset) received by an entity.

The Company has confirmed that there are no transactions significantly below the fair Value, therefore AASB 1058 has no application on the entity, and therefore Revenue is recognised for the major business activities using the methods outlined under AASB 15 as provided below:

(i) Member fees

Member fees, reactivation fees and application fees are recognised over time where the performance obligation is satisfied over the period of membership. Member fees received in advance of the service being provided are classified as unearned income. Transfer fees are recognised at a point in time where the performance obligation is satisfied when the service is performed.

(ii) Interest Income

Interest income is recognised when control of a right to receive consideration for the provision of, or investment in, assets has been attained.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

c) Revenue recognition (continued)

(iii) Volunteer Services

Volunteer services received by the Company are recognized by principles enunciated under AASB 1058 to ascertain donation element contained in them and recognise the equivalent fair market value in the books of accounts.

Under AASB 1058 a not-for-profit entity may, as an accounting policy choice to recognise volunteer services, or a class of volunteer services, if the fair value of those services can be measured reliably, whether the services would have been purchased if they had not been donated. The value of such volunteer services shall be measured at fair value. On the initial recognition of volunteer services as an asset or an expense, an entity shall recognise any related amounts as well. The entity shall recognise the excess of the fair value of the volunteer services over the recognised related amounts as income immediately in profit or loss account.

The Company cannot reliably measure the value of Volunteer services received by it given the nature of its business, sparsity of volunteering received apart from inability to obtain comparative market estimates. Therefore, the Company has not recognized the value of volunteering services in its financial statements in accordance with the exemption provided by AASB 1058.

Under AASB 1058, if the volunteer services includes a donation element the same is treated as a 'donation' transactions and the value of the same is required to be recognised in the financial statements. A donation component and thereby a donation transaction exists if:

- The consideration to acquire an asset is significantly less than its fair value; and
- The intent is to primarily to enable the NFP entity to further its objectives.

d) Grants

Grants relating to costs are deferred and recognised in profit or loss over the period necessary to match them with the costs that they are intended to compensate.

Grants are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Company will comply with all attached conditions.

e) Income tax

The income tax expense or revenue for the period is the tax payable on the current period's taxable income based on the applicable income tax rate adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the country where the Company operates and generates taxable income.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

e) Income tax (continued)

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects either accounting nor taxable profit or loss.

Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

The Company has self-assessed that the "principle of mutuality" applies to its affairs and has calculated its income tax using this principle for the year ended 31 December 2019.

f) Impairment of assets

Assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value-in-use.

g) Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the statement of financial position.

h) Trade receivables

Trade receivables are amounts due from customers for services performed in the ordinary course of business. They are generally due for settlement within 30 days and therefore are all classified as current. Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognised at fair value. The Company holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost using the effective interest method, less loss allowance.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

h) Trade receivables (continued)

Collectability of trade receivables is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off by reducing the carrying amount directly. An allowance account (future expected credit losses) is used when there is objective evidence that the Company will not be able to collect all amounts due according to the original terms of the receivables. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments are considered indicators that the trade receivable is impaired. The amount of the impairment allowance is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the original effective interest rate. Cash flows relating to short-term receivables are not discounted if the effect of discounting is immaterial.

The amount of the impairment loss is recognised in profit or loss within other expenses. When a trade receivable for which an impairment allowance had been recognised becomes uncollectible in a subsequent period, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against other expenses in profit or loss.

i) Investments and other financial assets

(i) Classification

The Company classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI or through profit or loss), and

- those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in profit or loss or OCI. It has been elected that changes in fair value be designated through profit and loss.

(ii) Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade-date, the date on which the Company commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all the risks and rewards of ownership.

(iii) Measurement

Debt instruments

Subsequent measurement of debt instruments depends on the Company's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the Company classifies its debt instruments:

- Amortised cost: Assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains/(losses) together with foreign exchange gains and losses. Impairment losses are presented as separate line item in the operating statement.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

i) Investments and other financial assets (continued)

(iii) Measurement (continued)

Debt instruments

- FVOCI: Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income from these financial   assets is included in finance income using the effective interest rate method. Foreign exchange gains and losses are presented in other gains/(losses) and impairment expenses are presented as separate line item in the operating statement.

- FVPL: Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within other gains/(losses) in the period in which it arises.

Equity instruments

The Company subsequently measures all equity investments at fair value. Where the Company's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment.

Dividends from such investments continue to be recognised in profit or loss as other income when the Company's right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in other gains/(losses) in the statement of profit or loss and other comprehensive income as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

(iv) Impairment

From 1 January 2019, the Company assesses on a forward looking basis the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For trade receivables, the Company applies the simplified approach permitted by AASB 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables.

Impairment losses on equity instruments that were recognised in profit or loss were not reversed through profit or loss in a subsequent year.

(v) Subsequent measurement

The fair values of quoted investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the Company establishes fair value by obtaining independent valuation statements or by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models making maximum use of market inputs and relying as little as possible on entity specific inputs.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

j) Property, plant and equipment

Property, plant and equipment is stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to profit or loss during the reporting year in which they are incurred.

Depreciation on assets acquired are calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Property related assets   2.5 – 50%
Computer equipment   5 – 50%

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting year.

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in profit or loss.

k) Trade and other payables

These amounts represent liabilities for goods and services provided to the Company prior to the end of the financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition.

l) Employee benefits

(i) Short-term obligations
Liabilities for wages and salaries, including non-monetary benefits, bonus, time-in-lieu, annual leave and accumulating sick leave expected to be settled within 12 months after the end of the period in which the employees render the related service are recognised in respect of employee's services up to the end of the reporting period and are measured at the amounts expected to be paid when the liabilities are settled. The liability for annual leave and accumulating sick leave is recognised in the provision for employee benefits. All other short-term employee benefit obligations are presented as payables.

(ii) Other long-term employee benefit obligations
The Company also has liabilities for long service leave and annual leave that are not expected to be settled wholly within 12 months after the end of the year in which the employees render the related service. These obligations are therefore measured as the present value of expected future payments to be made in respect of services provided by employees up to the end of the reporting year using the projected unit credit method.

Consideration is given to expected future wage and salary levels, experience of employee departures and years of service.

Expected future payments are discounted using market yields at the end of the reporting year of high-quality corporate bonds with terms and currencies that match, as closely as possible, the estimated future cash outflows. Remeasurements as a result of experience adjustments and changes in actuarial assumptions are recognised in profit or loss.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

2. Summary of significant accounting policies (continued)

l) Employee benefits (continued)

(ii) Other long-term employee benefit obligations (continued)

The obligations are presented as current liabilities in the statement of financial position if the entity does not have an unconditional right to defer settlement for at least twelve months after the reporting date, regardless of when the actual settlement is expected to occur.

m) Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of associated GST, unless the GST incurred is not recoverable from the taxation authority. In this case it is recognised as part of the cost of acquisition of the asset or as part of the expense.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included with other receivables or payables in the statement of financial position.

Cash flows are presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to the taxation authority, are presented as operating cash flows.

n) Rounding of amounts

The Company is of a kind referred to in ASIC Legislative Instrument 2016/191, issued by the Australian Securities and Investments Commission, relating to the 'rounding off' of amounts in the financial statements. Amounts in the financial statements have been rounded off in accordance with that instrument to the nearest dollar.

o) Working Capital deficit and going concern

The financial report has been prepared on a going concern basis, which assumes continuity of normal business activities and the realisation of assets and the settlements of liabilities in the ordinary course of business. The financial report shows the company has negative working capital of $3,030,203 (2018: $3,094,234). Whilst negative working capital, in the current year there is financial assets of $27,702,841 (Note 8) which is classified as non-current, which should the Company require funds to pay current debts when they fall due, could be realised on a short term basis.

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

3. Revenue from contracts with customers

	2019 $	2018 $
Membership fees	21,061,318	20,213,860
Non-membership fees	255,751	251,054
Sign-up fees	345,500	330,000
Transfer fees	173,831	164,145
Member reactivation fees	14,500	22,000
Non-member reactivation fees	2,400	-
Total revenue from continuing operations	**21,853,300**	**20,981,059**

Disaggregation of revenue from contracts with customers

The Company derives revenue from the transfer of services over time and at a point in time as follows:

	2019 $	2018 $
Revenue from transfer of services over time	21,679,469	20,816,914
Revenue from transfer of services at a point in time	173,831	164,145
	21,853,300	**20,981,059**

4. Other income and expense items

a) Other income

	2019 $	2018 $
Investment distribution income	832,953	683,763
Interest income	148,918	188,271
Grant income	-	4,737
Sundry income	435,603	429,281
	1,417,474	**1,306,052**

b) Other gains/(losses) – net

	2019 $	2018 $
Net (loss)/gain on disposal of property, plant and equipment	(3,681)	(12,384)
Net foreign exchange gains/(losses)	(4,739)	18,658
	(8,420)	**6,274**

5. Cash and cash equivalents

	2019 $	2018 $
Current assets		
Petty cash	400	400
Cash at bank	4,027,908	4,298,031
	4,028,308	**4,298,431**

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

6. Trade and other receivables

	2019 $	2018 $
Current assets		
Trade receivables	1,273,465	785,803
Provision for future expected credit loss	(68,082)	(43,780)
	1,205,383	**742,023**
Other receivables	281,231	250,436
Interest receivable	6,993	12,902
Short term deposits	4,150,000	4,150,000
	5,643,607	**5,155,361**

7. Other current assets

	2019 $	2018 $
Current assets		
Prepayments	834,010	660,863
Prepaid taxes	2,549	4,803
	836,559	**665,666**

8. Financial assets

	2019 $	2018 $
Non-current assets		
Unlisted securities		
Units in managed investment funds – at fair value	27,702,841	24,861,226
	27,702,841	**24,861,226**

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

9. Property, plant and equipment

	Property related assets $	Computer equipment $	Total $
At 1 January 2018			
Cost	7,967,550	4,241,288	12,208,838
Accumulated depreciation	(1,638,755)	(2,824,172)	(4,462,927)
Net book amount	**6,328,795**	**1,417,116**	**7,745,911**
Year ended 31 December 2018			
Opening net book amount	6,328,795	1,417,116	7,745,911
Additions	91,272	510,658	601,930
Disposals	-	(19,459)	(19,459)
Depreciation charge	(196,709)	(659,320)	(856,029)
Closing net book amount	**6,223,358**	**1,248,995**	**7,472,353**
At 31 December 2018			
Cost	8,053,187	4,541,639	12,594,826
Accumulated depreciation	(1,829,829)	(3,292,644)	(5,122,473)
Net book amount	**6,223,358**	**1,248,995**	**7,472,353**
Year ended 31 December 2019			
Opening net book amount	6,223,358	1,248,995	7,472,353
Additions	112,881	435,488	548,369
Disposals	-	(9,244)	(9,244)
Depreciation charge	(204,109)	(657,946)	(862,055)
Closing net book amount	**6,132,130**	**1,017,294**	**7,149,423**
At 31 December 2019			
Cost	8,166,066	4,083,595	12,249,661
Accumulated depreciation	(2,033,936)	(3,066,302)	(5,100,238)
Net book amount	**6,132,130**	**1,017,294**	**7,149,423**

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

10. Deferred tax

	2019 $	2018 $
Deferred tax assets expected to be recovered within 12 months	14,028	15,158
Deferred tax assets expected to be recovered after more than 12 months	319,734	271,379
Deferred tax liabilities expected to be recovered within 12 months	(2,223)	(4,144)
Deferred tax liabilities expected to be recovered after more than 12 months	(1,052,267)	(446,169)
Total net deferred tax liability	**(720,729)**	**(163,776)**

11. Trade and other payables

	2019 $	2018 $
Current liabilities		
Trade payables	(466,381)	(615,571)
Goods and services tax (GST) payable	(22,073)	(18,847)
Accrued expenses	(656,721)	(602,863)
Research funds	-	(4,480)
	(1,167,175)	**(1,241,761)**

12. Provisions

	2019 $	2018 $
Employee benefits		
Current	(1,801,421)	(1,743,961)
Non- Current	(376,628)	(254,584)
Total	**(2,178,049)**	**(1,998,545)**

13. Unearned income

	2019 $	2018 $
Current liabilities		
Unearned member and non-member fees	(10,551,581)	(10,197,272)
Unearned sponsorship income	(18,500)	(30,698)
	(10,570,081)	**(10,227,970)**

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

14. Contributed equity

a) Share capital

	2019 Shares	2018 Shares	2019 $	2018 $
Ordinary shares – fully paid	1	1	1	1

b) Ordinary shares

Ordinary shares entitle the holder to participate in dividends and the proceeds on winding up of the Company in proportion to the number of and amounts paid on the shares held.

On a show of hands every holder of ordinary shares present at a meeting in person or by proxy, is entitled to one vote, and upon a poll each share is entitled to one vote.

Ordinary shares have no par value and the Company does not have a limited amount of authorised capital.

15. Remuneration of auditors

During the year the following fees were paid or payable for services provided by the auditor of the entity and its related practices:

	2019 $	2018 $
Audit and other assurance services		
Audit of financial statements	37,100	48,000
Total remuneration of Audit Services	**37,100**	**48,000**

16. Commitments and contingencies

The Company had no commitments nor contingent liabilities at 31 December 2019 (2018: nil).

17. Events occurring after the reporting period

No matter or circumstance has occurred subsequent to year end that has significantly affected, or may significantly affect, the operations of the Company, the results of those operations or the state of affairs of the Company in subsequent financial years

APNIC Pty Ltd
Notes to the Financial Statements
For the year ended 31 December 2019

18. Reconciliation of profit after income tax to net cash inflow from operating activities

	2019 $	2018 $
Profit for the year	1,903,719	1,112,972
Adjustments for:		
Depreciation	862,055	856,029
Net loss on sale of non-current assets	3,678	12,384
Investment management fees	-	142,434
Fair value (gain)/loss on non-current financial assets at fair value through profit or loss	(2,169,284)	73,475
Investment distribution income	-	(683,763)
Net exchange differences	-	(22,902)
Change in operating assets and liabilities:		
(Increase)/decrease in trade and other receivables	(488,246)	324,011
Decrease in restricted cash	-	47,458
Increase in deferred tax assets	(47,224)	(84,136)
(Increase)/decrease in other operating assets	(170,891)	83,315
(Decrease)/Increase in trade and other creditors	(74,586)	155,089
Increase in unearned income	342,111	485,177
Increase/(Decrease) in deferred tax liabilities	604,178	(15,799)
Increase in other provisions	179,504	255,213
Net cash inflow/(outflow) from operating activities	945,014	2,740,957

As stated in note 1(a) to the financial statements, in the director's opinion, the Company is not a reporting entity because there are no users dependent on general purpose financial reports. This is a special purpose financial report that has been prepared to meet *Corporations Act 2001* requirements.

The financial report has been prepared in accordance with Accounting Standards and mandatory professional reporting requirements to the extent described in note 1.

In the director's opinion:

a. the financial statements and notes set out on pages 4 to 22 are in accordance with the *Corporations Act 2001*, including:

   (i) complying with Accounting Standards, the *Corporations Act 2001* and other mandatory professional reporting requirements, and

   (ii) giving a true and fair view of the Company's financial position as at 31 December 2019 and of its performance for the financial year ended on that date, and

b. there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Paul Byron Wilson
Director

Brisbane

14 February 2020

Independent Auditor's Report to the Members
of APNIC Pty Ltd.

Report on the Audit of the Financial Report

Opinion

We have audited the financial report, being a special purpose financial report, of APNIC Pty Ltd **(the "Company")** which comprises the statement of financial position as at 31 December 2019, the statement of comprehensive income, the statement of changes in equity and the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of **significant accounting policies and the directors' declaration**.

In our opinion, the accompanying financial report of the Company is in accordance with the *Corporations Act 2001*, including:

(i)   giving a true and fair view of the **Company's** financial position as at 31 December 2019 and of their financial performance for the year then ended; and

(ii)   complying with Australian Accounting Standards to the extent described in note 2 and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the ***Auditor's Responsibilities for the Audit of the Financial Report*** section of our report. We are independent of the Company in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the **Accounting Professional and Ethical Standards Board's APES 110** *Code of Ethics for Professional Accountants* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of the Company, would be in the same terms if given to the directors as **at the time of this auditor's report.**

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter – Basis of Accounting

We draw attention to note 2 to the financial report, which describes the basis of accounting. The **financial report has been prepared for the purpose of fulfilling the directors' financial reporting** responsibilities under the *Corporations Act 2001*. As a result, the financial report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Responsibilities of the Directors for the Financial Report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view and have determined that the basis of preparation described in note 2 to the financial report is appropriate to meet the requirements of the *Corporations Act 2001* and is appropriate to meet the needs of the members**. The directors'** responsibility also includes such

internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Company to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is **free from material misstatement, whether due to fraud or error, and to issue an auditor's report that** includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with the Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness **of the directors' use of the going concern basis of** accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company ability to continue as a going concern. If we conclude that a material uncertainty exists, we are **required to draw attention in our auditor's report to the related disclosures in the financial** report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based **on the audit evidence obtained up to the date of our auditor's report. However, future** events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte Touche Tohmatsu

DELOITTE TOUCHE TOHMATSU

Nathan Furness
Partner
Chartered Accountants
Brisbane, 14 February 2020

Annual Financial Report

(in AUD)

2019

APNIC

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1 Statement of Financial Position

Amount (AUD)	Year-End 2019	Year-End 2018	% Change
CURRENT ASSETS			
Cash/ Term deposits	8,219,434	8,456,000	*-3%*
Receivables	1,445,486	984,890	*47%*
Others	843,550	678,567	*24%*
TOTAL CURRENT ASSETS	**10,508,471**	**10,119,457**	**4%**
NON-CURRENT ASSETS			
Other financial assets	27,702,841	24,861,226	*11%*
Property, plant and equipment	7,149,423	7,472,353	*-4%*
Deferred tax assets	333,762	286,537	*16%*
TOTAL NON-CURRENT ASSETS	**35,186,026**	**32,620,117**	**8%**
TOTAL ASSETS	**45,694,497**	**42,739,574**	**7%**
CURRENT LIABILITIES			
Payables	1,167,175	1,241,761	*-6%*
Provisions	1,801,421	1,743,961	*3%*
Unearned revenue	10,570,081	10,227,970	**3%**
TOTAL CURRENT LIABILITES	**13,538,676**	**13,213,692**	**2%**
NON - CURRENT LIABILITIES			
Deferred tax liabilities	1,054,491	450,313	*134%*
Total provisions	376,628	254,584	*48%*
TOTAL NON-CURRENT LIABILITIES	**1,431,119**	**704,897**	**103%**
TOTAL LIABILITIES	**14,969,795**	**13,918,589**	**8%**
NET ASSETS	**30,724,702**	**28,820,985**	**7%**
EQUITY			
Contributed capital	1	1	*0%*
Retained earnings	28,820,984	27,708,012	*4%*
Net Income	1,903,717	1,112,972	*71%*
TOTAL EQUITY	**30,724,702**	**28,820,985**	**7%**

Table 1. Statement of Financial Position

1.1 Notes to Financial Position

The Statement of Financial Position shows that APNIC's net position increased by 7% compared to the end of last year. The major driver for this increase was the strong performance of the Investment portfolio, which increased by 11% in 2019.

2 Statement of Income

This report compares the full year 2019 actual expenses to the figures for last year and the 2019 budget.

2.1 Revenue

REVENUE (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Membership fees	21,061,318	20,213,860	4%	20,959,575	101,743	0%
Non-members fees	255,751	251,054	2%	258,112	-2,361	-1%
Reactivation fees	16,900	22,000	-23%	25,000	-8,100	-32%
Sign-Up fees	345,500	330,000	5%	351,000	-5,500	-2%
Transfer fees	173,831	164,145	6%	185,000	-11,169	-6%
Sundry income	430,863	447,939	-4%	345,892	84,971	25%
Operating Revenue	**22,284,164**	**21,428,997**	**4%**	**22,124,579**	**159,585**	**1%**
Investment income	981,871	872,034	13%	1,049,000	-67,129	-6%
TOTAL REVENUE	**23,266,035**	**22,301,031**	**4%**	**23,173,579**	**92,456**	**0%**

Table 2. Revenue

Notes to Revenue:

- **Investment income –** Income from the investment portfolio tracked slightly lower than the budget estimate in 2019, achieving $833k against the budget of $855k. Interest income from cash reserves was also below budget at $149k compared to the budget of $194k.
  - For 2019 the APNIC investment portfolio has achieved a return of 11.43% compared to the benchmark (CPI +2.5%) of 4.17%. Since inception the portfolio has returned 5.73% against the benchmark (CPI +2.5%) of 4.42%. The portfolio also achieved significant capital growth during 2019.
  - Interest rates for cash deposits continued to fall in 2019, as term deposits matured, they were reinvested at lower rates, impacting interest income.

- **Membership fees and Sign Up fees –** These fees finished in line with recent forecasts and close to the budget. The key statistics for 2019 were:
  - New member growth at the end of 2019 of 838, was slightly above the budget of 828.
  - Average fees for new members was $1,280 compared to the budget assumption of $1,324 whilst the average annual fee related to closed accounts in 2019 was $2,134, compared to the budget assumption of $2,193.
  - The budget assumed that 30% of members would originate from LDC economies, during 2019, 31% of new Members originated from LDCs.

- **Sundry Income –** Includes Meeting and Training/Workshop Registrations, Sponsorship, and Foundation receipts.
  - Sponsorship income for the APNIC conferences were above the 2019 budget by $80k.
  - Training and workshop registration income was $40k higher than budget, Foundation receipts were $56k below budget, and receipts from cost recovery training and consulting ended the year $40k below budget.

2.2 Expenses

EXPENSES (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Bank service fees	207,759	193,762	7%	203,000	4,759	2%
Communication expenses	570,832	542,895	5%	599,524	-28,692	-5%
Computer expenses	1,067,957	817,599	31%	1,050,390	17,567	2%
Contribution to APNIC Foundation	762,179	732,710	4%	746,208	15,971	2%
Depreciation expense	862,055	856,029	1%	841,892	20,163	2%
Doubtful debt expenses	24,302	-1,445	-1782%	25,000	-698	-3%
ICANN contract fee	263,386	278,866	-6%	260,000	3,386	1%
Insurance expense	206,523	189,738	9%	192,500	14,023	7%
Meeting and training expenses	425,704	396,545	7%	466,550	-40,846	-9%
Membership fees	58,241	48,309	21%	54,218	4,023	7%
Office operating expenses	342,806	342,458	0%	363,235	-20,429	-6%
Postage & delivery	35,060	42,808	-18%	48,500	-13,440	-28%
Printing & photocopy	36,145	35,605	2%	39,500	-3,355	-8%
Professional fees	1,820,443	1,458,389	25%	1,673,800	146,643	9%
Recruitment expense	95,357	185,554	-49%	120,000	-24,643	-21%
Salaries and personnel expenses	12,789,661	11,962,294	7%	12,993,111	-203,450	-2%
Sponsorship and Publicity expenses	627,766	759,741	-17%	828,350	-200,584	-24%
Staff training/ Conference expenses	381,567	199,349	91%	301,500	80,067	27%
Translation expenses	6,668	7,855	-15%	22,500	-15,832	-70%
Travel expenses	2,390,238	2,165,459	10%	2,099,000	291,238	14%
TOTAL EXPENSES	**22,974,649**	**21,214,519**	**8%**	**22,928,778**	**45,871**	**0%**

Table 3. Expenses

Notes to Expenses:

The total expenses ended 2019 close to the approved budget. Major variance reported are:

- **Communication expenses** were below budget with the major variances relating to the costs for; backup cloud storage, peering and anycast global RDAP, and Whois being less than the budget provisions.

- **Meeting & training expenses** were below budget with the major variances relate to the costs of hosting training events in 2019, where actual costs were less than the provision.

- **Professional fees** were above budget by $147k at the end of 2019. This is mainly due to unbudgeted costs related to support of the 2019-2023 strategic planning, benchmarking consulting, product management, Internet Directory and the APNIC Academy.

- **Salaries and personnel expenses** ended 2019 below budget by $203K; this is a result of changes to leave provisions caused by significant amounts of annual leave taken by staff in December, and a number of roles were unfilled at the end of the year.

- **Sponsorship and publicity expenses** were below budget by $201K. Actual costs for APNIC's share of the NRO expenses were less than accrued at the end of 2018, after reconciliation with the other RIR's, APNIC's overall NRO expenses end 2019, $68k below budget. Adding to this, sponsorship expenditure for NOG's, Regional and National IGF sponsorship and support for community, technical development, and security conferences were $87k below budget.

- **Staff training expenses** was $80k above budget. The variance was driven by investment in training for Product Management and Strategic Planning initiatives included at the staff conference.

- **Travel expenses** were $291k above the budget provision at the end of 2019. This variance was driven by increased travel activity and the decline of the Australian dollar compared to the

USD. Global travel was higher than budget driven by support provided for AFRINIC and high-level engagement at RIR meetings.

2.3 Operating Surplus/ Deficit

REVENUE and EXPENSES (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Total Revenue	23,266,035	22,301,031	4%	23,173,579	92,456	0%
Total Expenses	22,974,649	21,214,519	8%	22,928,778	45,871	0%
Operating Surplus	**291,386**	**1,086,512**	**-73%**	**244,801**	**46,585**	**19%**
Fair value surplus/ (loss) on financial assets	2,169,284	-73,475	-3052%		2,169,284	-
Surplus before Income Tax	**2,460,670**	**1,013,037**	**143%**	**244,801**	**2,215,869**	**905%**
Income tax (expense)/ benefit	-556,953	99,935	-657%		-556,953	-
SURPLUS FOR THE YEAR	**1,903,717**	**1,112,972**	**71%**	**244,801**	**1,658,916**	**678%**

Table 4. Operating Surplus/ Deficits

Notes to Operating Surplus:

The investment portfolio performed strongly in 2019, with significant Capital growth which was reinvested. The Fair value surplus in the table above represents the value of the capital growth, this growth is offset by realized and unrealized capital gains tax in the income tax line.

3 Capital Expenditure

The table below provides overview of current capital expenditure as of December 2019.

CAPITAL (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Equipment & Software	435,488	510,658	-15%	759,411	-323,923	-43%
Office Furniture & Fittings	112,879	91,273	24%	115,000	-2,121	-2%
Total - Capital Expenditure	**548,368**	**601,930**	**-9%**	**874,411**	**-326,043**	**-37%**

Table 5. Capital Expenditure

4   Activity Reporting

4.1   Expense by Activity Code

APNIC's expenditure against major activity groups in the 2019 Activity Plan is reported as follows.

EXPENSES (AUD)	Actual 2019	Budget 2019	Variance $	Variance %
Customer Service	3,952,377	3,957,397	-5,020	0%
Member Training	1,825,055	2,014,799	-189,744	-9%
Registration Services	1,952,180	1,940,109	12,071	1%
Technical Infrastructure	3,538,405	3,603,115	-64,710	-2%
Total - Serving Members	**11,268,017**	**11,515,420**	**-247,403**	**-2%**
APNIC Conferences	1,433,502	1,432,559	943	0%
APNIC Foundation	814,867	761,208	53,659	7%
Community Engagement	1,099,120	994,588	104,532	11%
Regional Technical Development	1,896,347	1,962,789	-66,442	-3%
Total - Regional Development	**5,243,837**	**5,151,144**	**92,693**	**2%**
Global Research	812,232	714,191	98,041	14%
Global Technical Community	1,325,820	1,248,536	77,284	6%
Inter-governmental Outreach	275,742	306,479	-30,737	-10%
Total - Global Cooperation	**2,413,794**	**2,269,206**	**144,588**	**6%**
Facilities	678,953	648,106	30,847	5%
Finance & Administration	1,341,489	1,508,088	-166,599	-11%
Human Resource Management	1,155,239	1,049,628	105,611	10%
Legal & Governance	873,320	787,186	86,134	11%
Total - Corporate	**4,049,001**	**3,993,008**	**55,993**	**1%**
Total - Expenses	**22,974,649**	**22,928,778**	**45,871**	**0%**

Table 6. Expense by Activity Code

Notes to Expenses by Activity:

Whilst the costs of the actual activities overall aligned with the budget profile, major variance are:

- **Member Training** was below budget by $190K, this variance is primarily caused by underspend in Salaries & Personnel, highlighting the difficulty in finding suitable applicants to fill vacancies in the training team. This has also resulted in some reduction in travel costs. Some of these savings are offset by increase in professional fees paid to community trainers and other consultants.

- Expenses related to **APNIC Foundation** and **Community Engagement** activities exceeded the budget provision, these variances were related to travel and the timing of personnel costs.

- **Global Research** activities were higher than budget driven by higher than anticipated expenditure on Google advertising and on cloud solutions. **Global Technical Community** activities exceeded the budget provision, these costs related to travel, particularly extra travel for cooperation activities with AFRINIC, some of these costs were offset because APNIC's share of NRO expenses was below the budget provision

- **Finance & Administration** was below budget by $167K, savings in Salaries & Personnel and travel expenses are the major contributors to this variance which is caused by the delay in filling vacant roles in the Business team. **Human Resource Management** was above budget, caused by costs related to Product Management training and costs related to the implementation of the

new HRIS System. **Legal & Governance** costs were higher than anticipated, primarily in relation to Legal fees and Insurance costs.
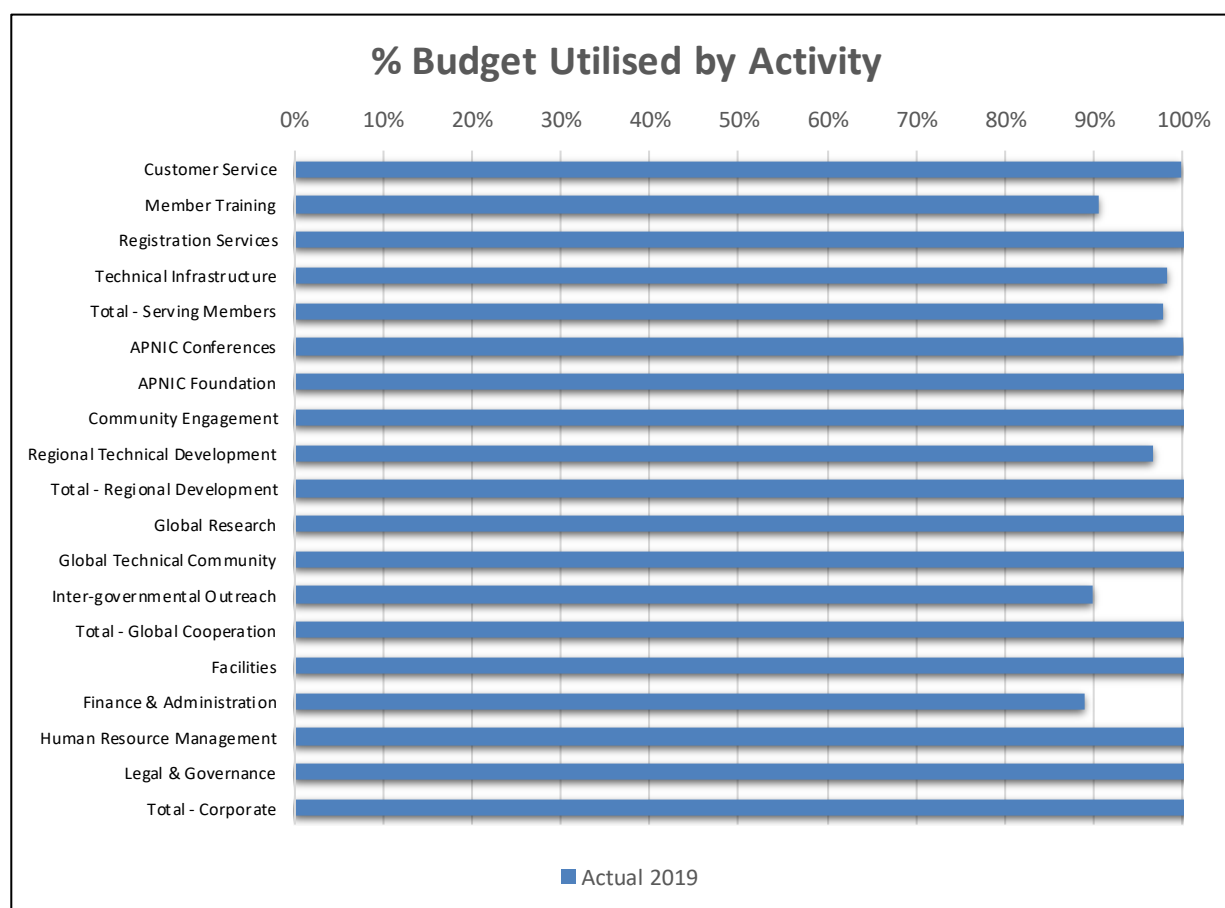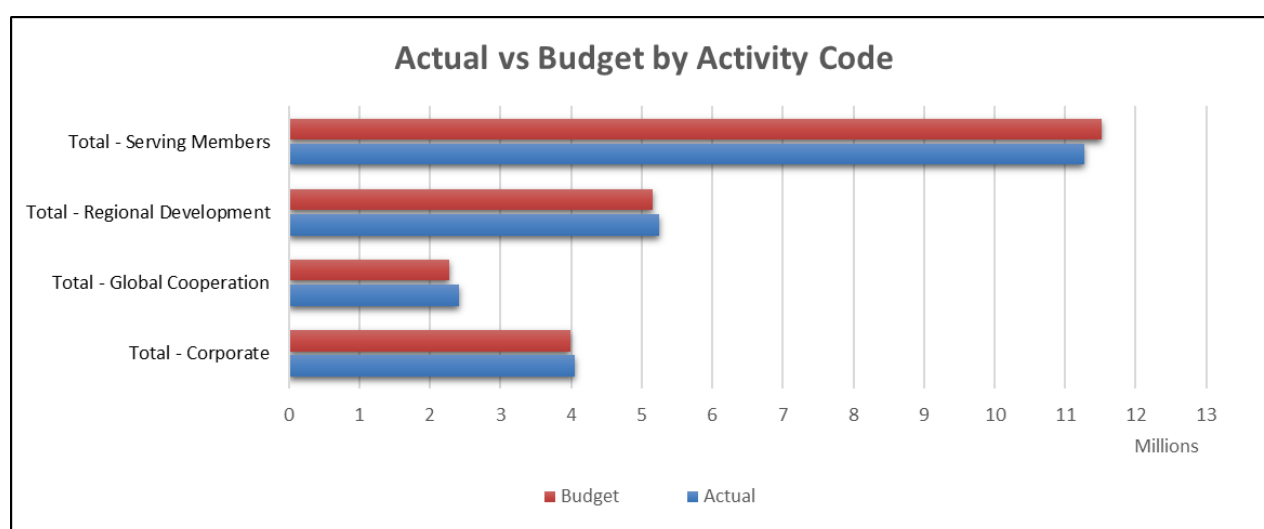

Figure 1. % Budget Utilised by Activity

Figure 2. Actual vs. Budget by Activity

4.2   Capital Expenditure by Activity Code

CAPITAL EXPENSES (AUD)	Actual 2019	Budget 2019	Variance $	Variance %
Customer Service	33,857	36,300	-2,443	-7%
Member Training		53,000	-53,000	-100%
Registration Services				
Technical Infrastructure	320,711	394,111	-73,400	-19%
Total - Serving Members	**354,567**	**483,411**	**-128,844**	**-27%**
APNIC Conferences		3,000	-3,000	-100%
APNIC Foundation	2,714		2,714	
Community Engagement	17,355	200,000	-182,645	-91%
Regional Technical Development	20,069	203,000	-182,931	-90%
Total - Regional Development	**20,069**	**203,000**	**-182,931**	**-90%**
Global Research	43,698	60,000	-16,302	-27%
Global Technical Community				
Inter-governmental Outreach				
Total - Global Cooperation	**43,698**	**60,000**	**-16,302**	**-27%**
Facilities	112,879	115,000	-2,121	-2%
Finance & Administration	14,347	9,500	4,847	51%
Human Resource Management	2,807	3,500	-693	-20%
Legal & Governance				
Total - Corporate	**130,033**	**128,000**	**2,033**	**2%**
Total - Capital Expenses	**548,368**	**874,411**	**-326,043**	**-37%**

Table 7. Capital Expenditure by Activity Code

5   APNIC Reserve

5.1   Cash Flow Statement

This report shows the draft cash flow status for the year ended December 2019.

Accounts	2019
Operating Activities	
Net Income	**1,903,717**
Adjustments to Profit/(Loss)	
Accounts Receivable	-487,661
Other Current Asset	-185,144
Accounts Payable	-90,340
Sales Tax Payable	3,226
Other Current Liability	1,016,276
Total Adjustments to Profit/(Loss)	**256,358**
Total Operating Activities	**2,160,075**
Investing Activities	
Fixed Asset	322,930
Other Asset	-2,841,615
Total Investing Activities	**-2,518,685**
Financing Activities	
Long Term Liability	122,044
Equity	0
Total Financing Activities	**122,044**
Net Change in Cash for Period	**-236,566**
Cash at Beginning of Period	8,456,000
Cash at End of Period	**8,219,434**

Table 8. Cash Flow Statement

5.2 Capital Reserve

The Reserve is diversified between Cash Investments, Investment Portfolio, and Property (APNIC office). At the end of December, APNIC maintained $8.2M in cash reserves, $27.7M in the investment portfolio and $5.8M in Property. Figure 3 below, tracks the value and the allocation of these reserves over time, against operating expenses for each year.
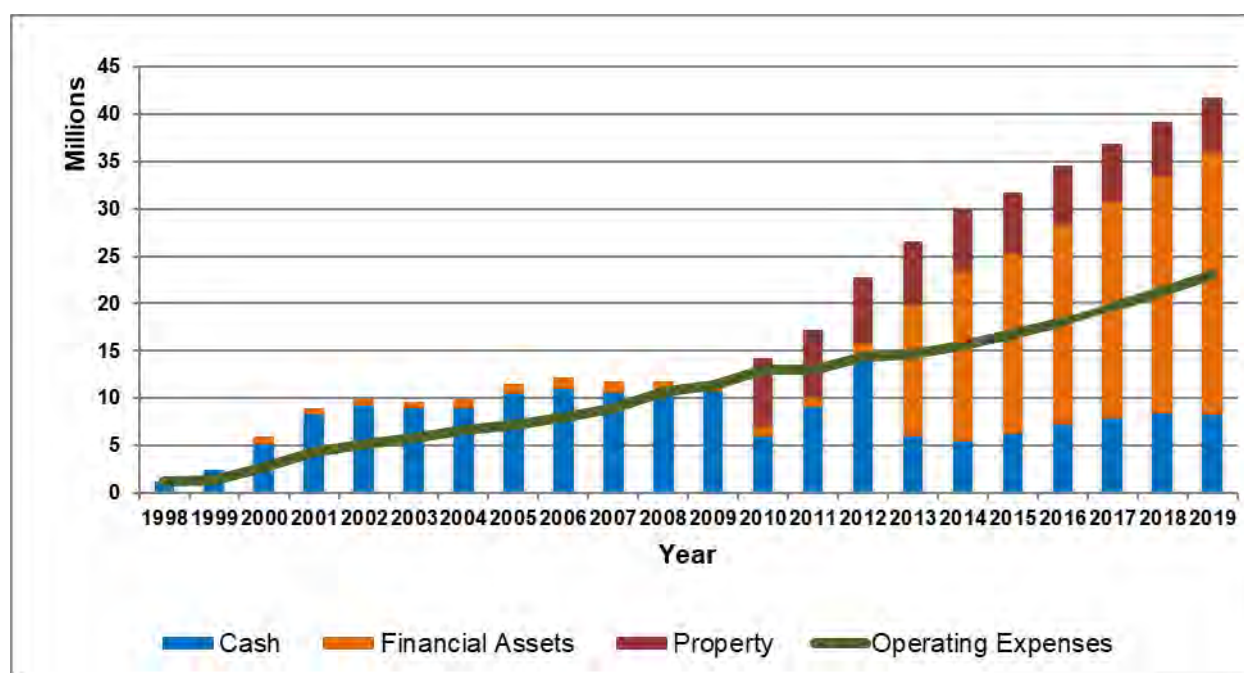
Figure 3. APNIC Reserves

5.3 Investment Policy

The amount of $27.7M at the end of 2019 comprised invested funds, capital growth and reinvested returns in the Credit Suisse investment management account. Please refer to the attached investment report outlining the performance of the portfolio.

5.4 APNIC's Equity and Reserves

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

	2019	2018	2017	2016	2015
Total Equity (AUD)	$30,724,702	$28,820,985	$27,708,013	$25,647,507	$23,319,460
% Equity covered by Cash/ Cash Equivalents	116.9%	115.6%	111.0%	110.6%	121.6%
Actual Daily Operating Expenses (AUD)	$62,944	$58,122	$53,909	$49,430	$46,077
Number of Months of expenses covered by Equity	**16.05**	**16.30**	**16.90**	**17.01**	**16.64**

Table 9. Equity and Reserves

6 Membership

6.1 Membership Statistics

As at the end of December 2019, APNIC had a total of 7,776 Members serving 53 economies.

6.2 Membership by Category

The table below shows the yearly changes in membership for past six years:

Membership fees	2013	2014	2015	2016	2017	2018	2019
Extra Large	20	21	22	22	23	24	24
Very Large	43	40	44	43	41	44	46
Large	147	142	137	143	138	143	143
Medium	392	402	431	449	473	483	493
Small	1,198	1,388	2,165	2,643	2,971	3,376	3,601
Very Small	1,294	1,701	2,336	2,590	2,769	2,967	3,334
Associate	957	924	133	109	132	125	135
Total	**4,051**	**4,618**	**5,268**	**5,999**	**6,547**	**7,162**	**7,776**
New	813	805	968	1,048	849	825	838
Close	296	238	318	322	296	210	224
Total	**517**	**567**	**650**	**726**	**553**	**615**	**614**
Average Monthly Gain	**43**	**47**	**54**	**61**	**46**	**51**	**51**

Table 10. Membership by Category

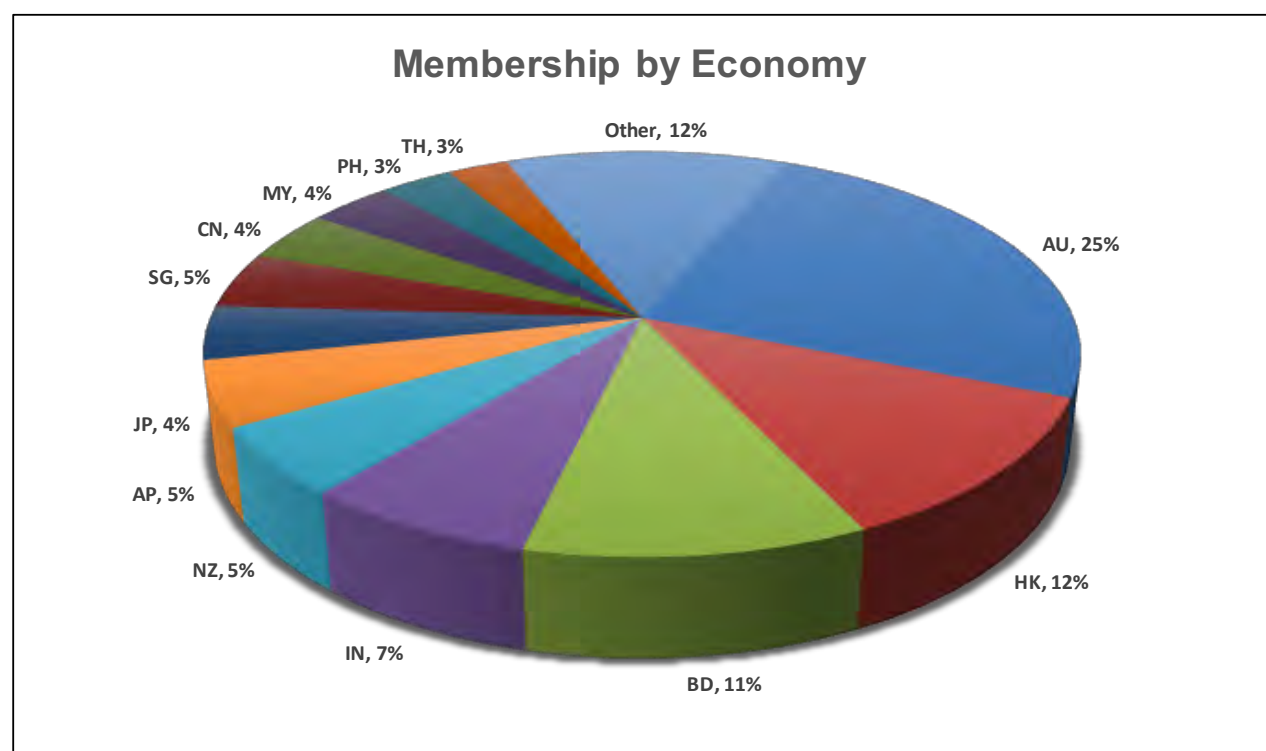## 6.3 Membership by Economy

Figure 4. Membership by Economy

6.4   Membership Growth

APNIC membership monthly movements are illustrated at Figure 5 below. Membership growth for 2019 has been incorporated in this graph to track monthly growth.
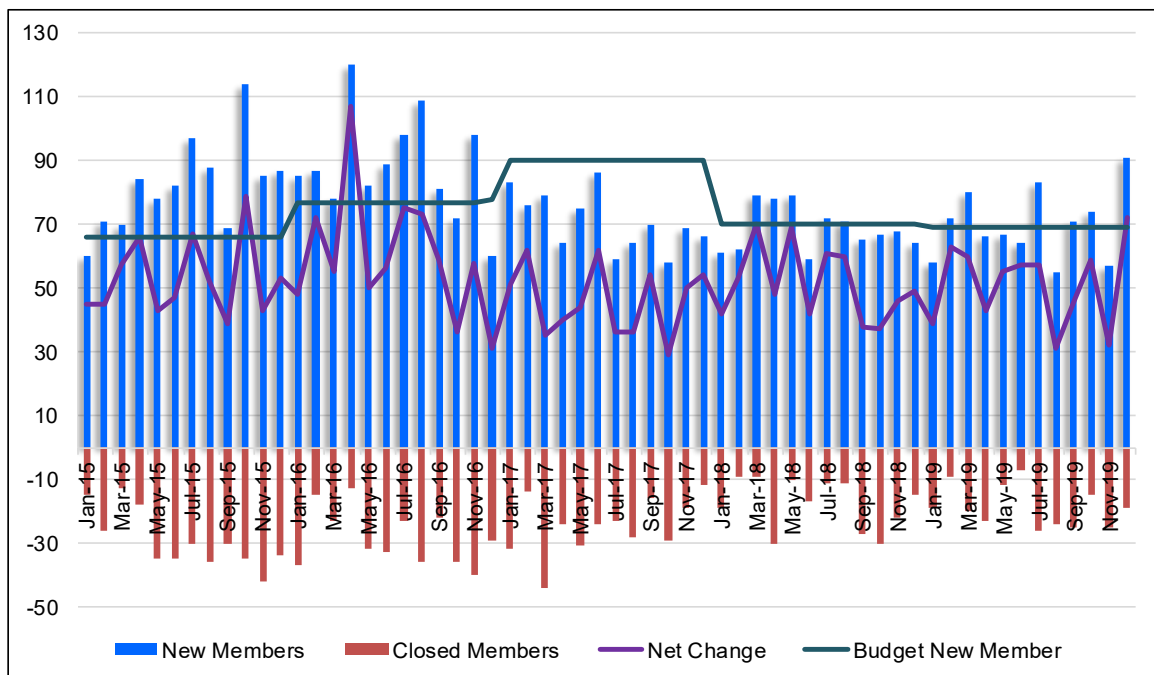
Figure 5. Membership Growth Analysis

Figure 6 below illustrates Membership growth by membership tier:
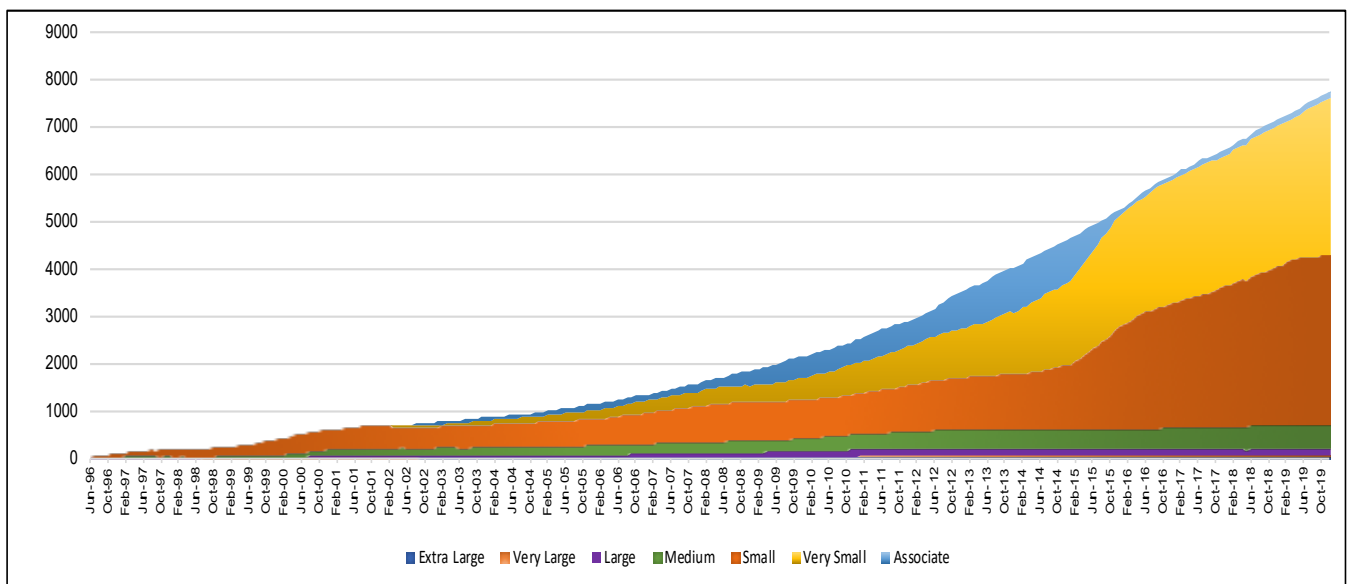
Figure 6. Total Membership

6.5   Year-to-Date Membership Movement by Economy

Figure 7 below shows new and closed membership movement by economy as at end of December 2019.

Figure 7. New and Closed Members Analysis

6.6   Membership Closures Analysis

Figure 8 below provides an analysis of Membership closures as at the end of December. 74% of the closures relate to accounts closed due to the failure to establish contact or voluntary closure, and resource holdings are returned to APNIC.

Figure 8. Closure Analysis

6.7   Membership Closures by Economy

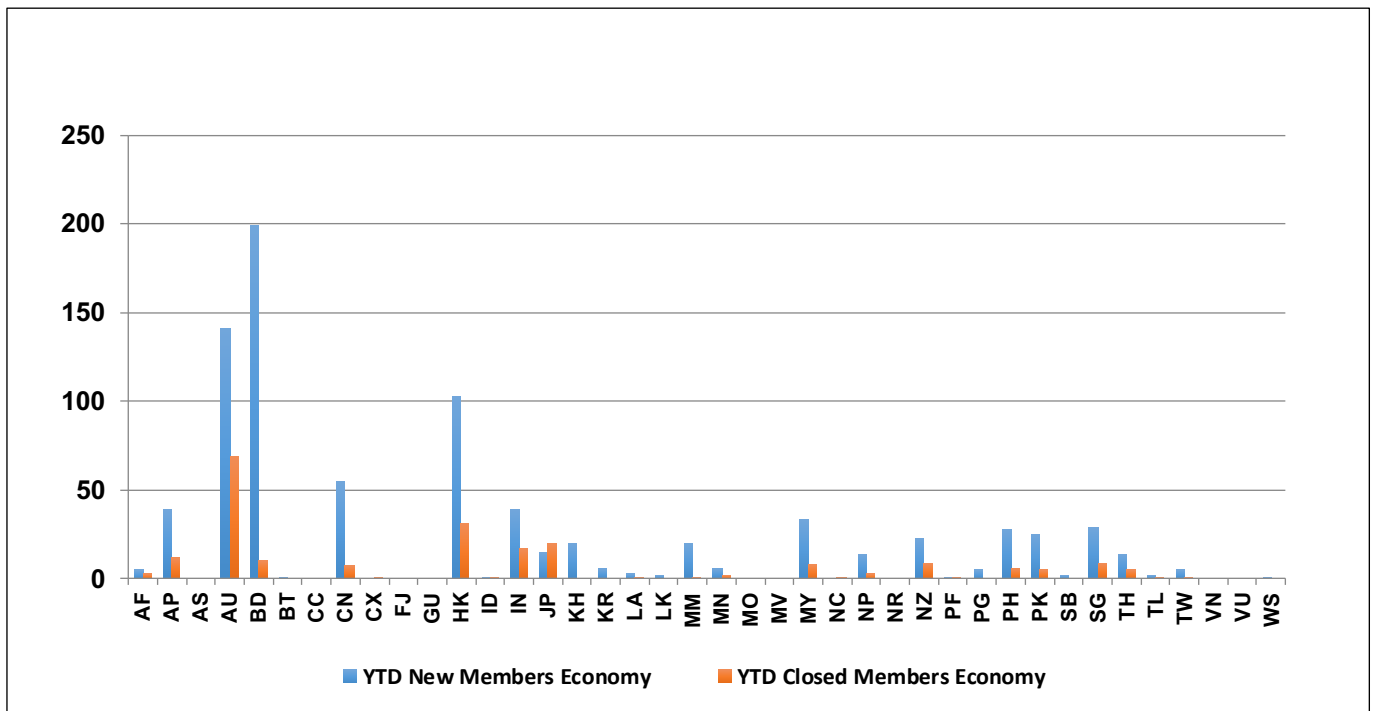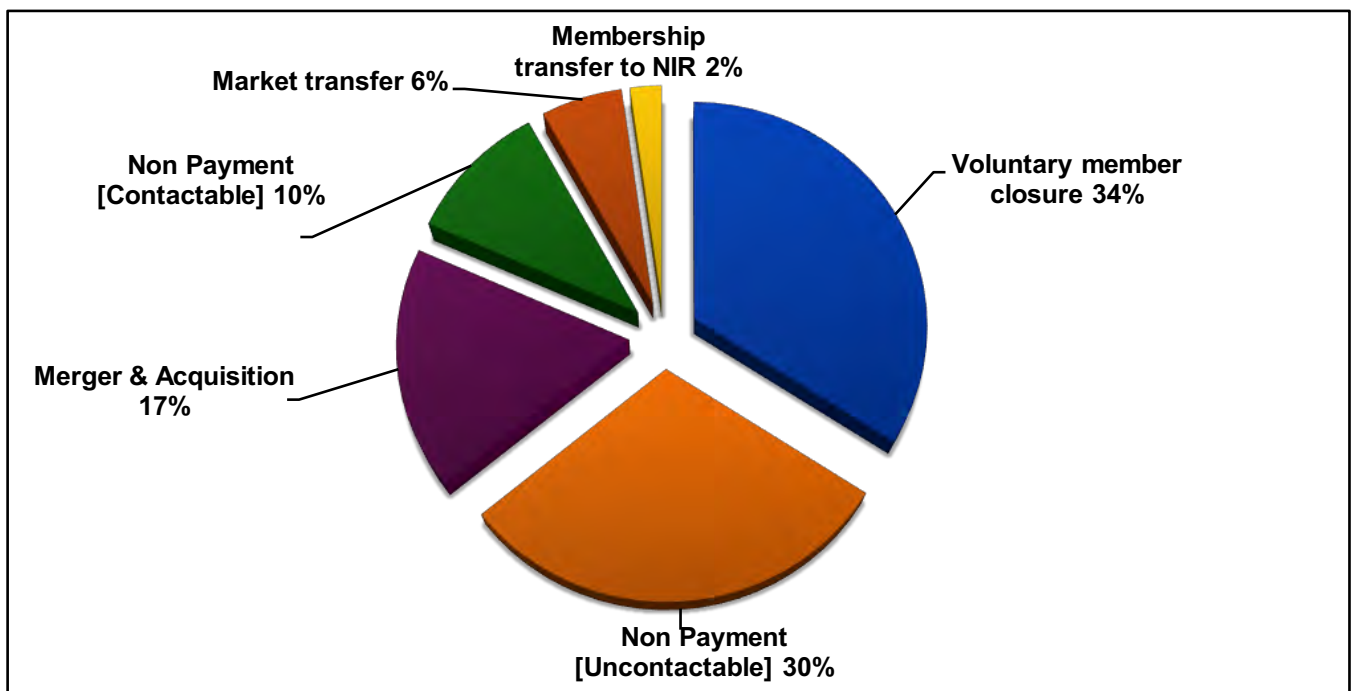| Economy	Market transfer	Membership transfer to NIR	Merger & Acquisition	Non Payment [Uncontactable]	Non Payment [Contactable]	Voluntary member closure	Grand Total	IPV4 Resources Reclaimed (/24's)	IPV6 Resources Reclaimed (/32's)	ASN Reclaimed
AF				2		1	**3**	8		3
AP	1		1	4	1	5	**12**	15	1	
AU	3		16	14	13	23	**69**	189	20	37
BD	1		1	3	4	1	**10**	24	5	8
CN	3			2	1	1	**7**	16	4	5
CX				1			**1**			
HK	5		2	5	1	18	**31**	35	6	8
ID		1					**1**			
IN		2	2	9		4	**17**	96	2	11
JP		1	7	9	1	2	**20**	32		
LA						1	**1**	1		1
MM						1	**1**	8		1
MN				1		1	**2**	2	0	2
MY			4	3		1	**8**	45	1	5
NC						1	**1**			
NP			1	1		1	**3**	8	2	2
NZ			2	1		6	**9**	5	1	6
PF			1				**1**			
PH				3		3	**6**	16	0	6
PK				4			**4**	10	1	4
SG				3	2	4	**9**	18	2	2
TH			2	1		2	**5**	14	0	3
TL				1			**1**	4	1	1
TW		1					**1**			
Grand Total	**13**	**5**	**39**	**67**	**23**	**76**	**223**	**546**	**46**	**105**

Table 11. Membership Closure by Economy

6.8 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		2	1			**4**
2001			1				**1**
2002	2						**2**
2003		1		2			**3**
2004	1		2				**3**
2005				1		2	**3**
2006	1		5	1		1	**8**
2007			2	1			**3**
2008				1		2	**3**
2009		1	1	1	3	4	**10**
2010			2	1		6	**9**
2011		1	4	3		2	**10**
2012			4	4	2	5	**15**
2013	2		9	4	1	15	**31**
2014	5		5	6	2	10	**28**
2015				9	2	2	**13**
2016	1	1		7	5	9	**23**
2017		1	1	13	5	5	**25**
2018			1	12	3	12	**28**
Grand Total	**13**	**5**	**39**	**67**	**23**	**76**	**223**

Table 12. Membership Closure by Year Joined

2019 Financial Report

Highlights

- Operating surplus of $291k exceeds budget by $47k

- Operating Revenue $92k above budget

- Expenses $46k above budget

- Equity position increases by $1,904k (7%)

- Fair value surplus on financial assets $2,169K

- Financial stability measure at 16.05 Months of Operating Expenses

- Successful audit outcome

Operating Surplus

REVENUE and EXPENSES (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Total Revenue	23,266,035	22,301,031	4%	23,173,579	92,456	0%
Total Expenses	22,974,649	21,214,519	8%	22,928,778	45,871	0%
Operating Surplus	291,386	1,086,512	-73%	244,801	46,585	19%

All amounts in AUD – Australian Dollars

MELBOURNE, AUSTRALIA 12 – 21 February 2020

APRICOT 2020 APNIC 49

25 YEARS

Surplus

REVENUE and EXPENSES (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Total Revenue	23,266,035	22,301,031	4%	23,173,579	92,456	0%
Total Expenses	22,974,649	21,214,519	8%	22,928,778	45,871	0%
Operating Surplus	291,386	1,086,512	-73%	244,801	46,585	19%
Fair value surplus/ (loss) on financial assets	2,169,284	-73,475	-3052%		2,169,284	-
Surplus before Income Tax	2,460,670	1,013,037	143%	244,801	2,215,869	905%
Income tax (expense)/ benefit	-556,953	99,935	-657%		-556,953	-
SURPLUS FOR THE YEAR	1,903,717	1,112,972	71%	244,801	1,658,916	678%

The investment portfolio performed strongly in 2019, with significant capital growth which was reinvested. The Fair value surplus above represents the value of this capital growth, this growth is offset by realized and unrealized capital gains tax as seen in the income tax line.

All amounts in AUD – Australian Dollars

MELBOURNE, AUSTRALIA 12 – 21 February 2020
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25 YEARS

Revenue

REVENUE (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Membership fees	21,061,318	20,213,860	4%	20,959,575	101,743	0%
Non-members fees	255,751	251,054	2%	258,112	-2,361	-1%
Reactivation fees	16,900	22,000	-23%	25,000	-8,100	-32%
Sign-Up fees	345,500	330,000	5%	351,000	-5,500	-2%
Transfer fees	173,831	164,145	6%	185,000	-11,169	-6%
Sundry income	430,863	447,939	-4%	345,892	84,971	25%
Operating Revenue	**22,284,164**	**21,428,997**	**4%**	**22,124,579**	**159,585**	**1%**
Investment income	981,871	872,034	13%	1,049,000	-67,129	-6%
TOTAL REVENUE	**23,266,035**	**22,301,031**	**4%**	**23,173,579**	**92,456**	**0%**

All amounts in AUD – Australian Dollars

Revenue

Overall revenue in line with budget

Operating Revenues:

Membership fees and Sign Up fees
- These fees finished 2019 very close to the budget estimates and in line with recent forecasts, the following statistics are worth noting:
  - New member growth at the end of 2019 of 838 (69 per month) was slightly higher than the budget of 828
  - Average fees for new members was during 2019 was $1,280 compared to the budget assumption of $1,324
  - During 2019, 7,692 (/24's) IPv4 addresses were transferred in to APNIC, whilst only 381 (/24's) were transferred out, resulting in a net gain into the region of 7,311 (/24's)
  - The average annual fee related to closed accounts in 2019 was $2,134, compared to the budget assumption of $2,193.
  - The budget assumed that 30% of members would originate from LDC economies, but during 2019, 30.3% of new Members originated from LDC economies.

Reactivation fees
- These fees finished 2019 below budget, a result of a strong focus on saving member accounts from closure.

Sundry Income
- Sundry Income was greater than budget, this variance was caused by:
  - Sponsorship for the APNIC conferences were above budget by $80k.
  - Training and workshop registration income was $40k above budget
  - Foundation receipts were $56 below budget
  - Training receipts/cost recovery were $40k below budget

MELBOURNE, AUSTRALIA 12 – 21 February 2020
APRICOT 2020 APNIC 49
25 YEARS

Revenue cont'd.

Investment Income:

For 2019 the total investment income achieved was $982k, slightly below the budget of $1,049k, it is important to note that although investment income was lower than budget, there was significant capital growth in the value of the investment portfolio.

Investment portfolio income tracked slightly lower than the budget estimate in 2019 achieving $833k against the budget of $855k.

- For 2019 the APNIC portfolio has achieved a return of 11.43% compared to the benchmark (CPI +2.5%) of 4.17%. Since inception, the portfolio has returned 5.73% against the benchmark (CPI +2.5%) of 4.42%.

Interest income (from cash reserves) was also below budget at $149k compared to the budget of $194k.

- Interest rates for cash deposits continued to fall in 2019, as term deposits matured during the year they were reinvested at lower rates, impacting interest income.

Revenue cont'd.

Investment Income against benchmarks:

Market Value as at 31 December 2019

	Market Value
APNIC Portfolio	A$27,716,518

Performance as of 31 December 2019

APNIC Portfolio				
	Portfolio	Benchmark	Relative	CPI + 2.5%
Month	-1.49%	-1.23%	-0.26%	0.35%
3 Months	-0.14%	-0.07%	-0.07%	1.05%
Year To Date	11.43%	11.37%	+0.06%	4.17%
1 Year	11.43%	11.37%	+0.06%	4.17%
3 Years pa	6.40%	6.24%	+0.16%	4.38%
Since Inception pa	5.73%	5.88%	-0.15%	4.42%

* Performance is after fees but before franking

Expenses

EXPENSES (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Bank service fees	207,759	193,762	7%	203,000	4,759	2%
Communication expenses	570,832	542,895	5%	599,524	-28,692	-5%
Computer expenses	1,067,957	817,599	31%	1,050,390	17,567	2%
Contribution to APNIC Foundation	762,179	732,710	4%	746,208	15,971	2%
Depreciation expense	862,055	856,029	1%	841,892	20,163	2%
Doubtful debt expenses	24,302	-1,445	-1782%	25,000	-698	-3%
ICANN contract fee	263,386	278,866	-6%	260,000	3,386	1%
Insurance expense	206,523	189,738	9%	192,500	14,023	7%
Meeting and training expenses	425,704	396,545	7%	466,550	-40,846	-9%
Membership fees	58,241	48,309	21%	54,218	4,023	7%
Office operating expenses	342,806	342,458	0%	363,235	-20,429	-6%
Postage & delivery	35,060	42,808	-18%	48,500	-13,440	-28%
Printing & photocopy	36,145	35,605	2%	39,500	-3,355	-8%
Professional fees	1,820,443	1,458,389	25%	1,673,800	146,643	9%
Recruitment expense	95,357	185,554	-49%	120,000	-24,643	-21%
Salaries and personnel expenses	12,789,661	11,962,294	7%	12,993,111	-203,450	-2%
Sponsorship and Publicity expenses	627,766	759,741	-17%	828,350	-200,584	-24%
Staff training/ Conference expenses	381,567	199,349	91%	301,500	80,067	27%
Translation expenses	6,668	7,855	-15%	22,500	-15,832	-70%
Travel expenses	2,390,238	2,165,459	10%	2,099,000	291,238	14%
TOTAL EXPENSES	**22,974,649**	**21,214,519**	**8%**	**22,928,778**	**45,871**	**0%**

All amounts in AUD – Australian Dollars

MELBOURNE, AUSTRALIA 12 – 21 February 2020

APRICOT 2020 APNIC 49

25 YEARS

Expenses

The variance in total expenses is **less than 1% ($46k above)** of the approved budget for 2019. Major variance reported are:

Communication expenses were below budget with the major variance relates to the costs for backup cloud storage, peering and anycast global RDAP, and Whois being less than the budget provisions.

Meeting & training expenses were below budget with the major variances relate to the costs of hosting training events in 2019, where actual costs were less than the provision.

Expenses cont'd

Professional fees were above budget by $147k at the end of 2019
- This is mainly due to unbudgeted costs related to support of the 2019-2023 strategic planning, benchmarking consulting, product management, Internet Directory and the APNIC Academy.

Salaries and personnel expenses end 2019 below budget by $203K
- This variance is a result of changes to leave provisions caused by significant amounts of annual leave taken by staff in December and a number of roles were unfilled at the end of the year.

Sponsorship and publicity expenses were below budget by $201K
- Actual costs for APNIC's share of the NRO expenses were less than accrued at the end of 2018, after reconciliation with the other RIR's, APNIC's overall NRO expenses end 2019, $68k below budget. Adding to this, sponsorship expenditure for NOG's, Regional and National IGF sponsorship a support for community, technical development, and security conferences were $87k below budget.

Expenses cont'd

Staff training expenses was $80k above budget.
- The variance was driven by investment in training for Product Management and Strategic Planning initiatives included at the staff conference.

Travel expenses were $291k above the budget provision at the end of 2019.
- This variance was driven by increased travel activity and the decline of the Australian dollar compared to the USD. Global travel was higher than budget driven by support provided for AFRINIC and attendance at; RIPE 78 - Reykjavik, IETF meetings in Montreal and Singapore, ICANN meetings in KOBE and Montreal, and EC Meetings in Taiwan and Brisbane were major contributors to this expense variance.

All amounts in AUD – Australian Dollars

MELBOURNE, AUSTRALIA 12 – 21 February 2020
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Capital Expenditure 2019

CAPITAL (AUD)	Actual 2019	Actual 2018	Variance %	Budget 2019	Budget Variance $	Budget Variance %
Equipment & Software	435,488	510,658	-15%	759,411	-323,923	-43%
Office Furniture & Fittings	112,879	91,273	24%	115,000	-2,121	-2%
Total - Capital Expenditure	**548,368**	**601,930**	**-9%**	**874,411**	**-326,043**	**-37%**

- Major variances relate to budget provisions that were not fully utilized; major items include:
  - New IXP Development, $189k below budget
  - Routers and Switches $90k below budget

Expenses by Activity

Actual vs Budget by Activity Code
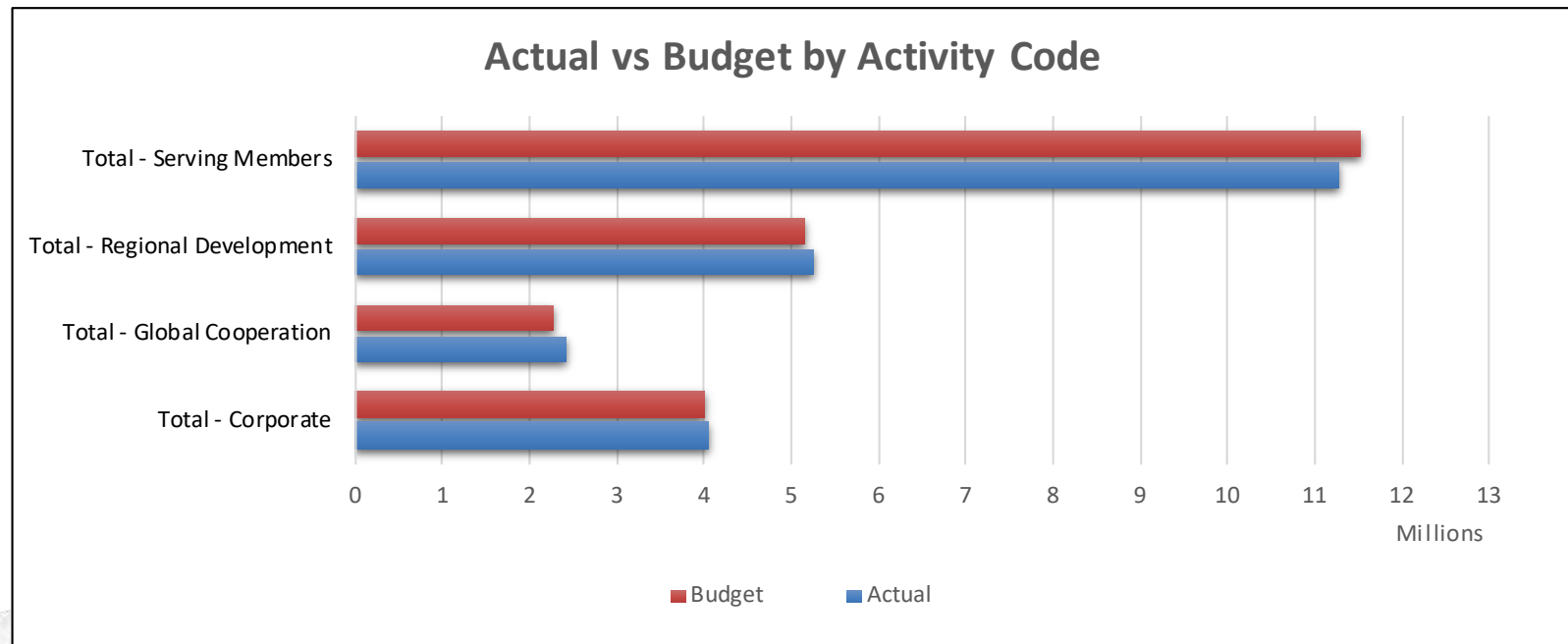
	Budget	Actual

Expenses by Activity

EXPENSES (AUD)	Actual 2019	Budget 2019	Variance $	Variance %
Customer Service	3,952,377	3,957,397	-5,020	0%
Member Training	1,825,055	2,014,799	-189,744	-9%
Registration Services	1,952,180	1,940,109	12,071	1%
Technical Infrastructure	3,538,405	3,603,115	-64,710	-2%
Total - Serving Members	**11,268,017**	**11,515,420**	**-247,403**	**-2%**
APNIC Conferences	1,433,502	1,432,559	943	0%
APNIC Foundation	814,867	761,208	53,659	7%
Community Engagement	1,099,120	994,588	104,532	11%
Regional Technical Development	1,896,347	1,962,789	-66,442	-3%
Total - Regional Development	**5,243,837**	**5,151,144**	**92,693**	**2%**
Global Research	812,232	714,191	98,041	14%
Global Technical Community	1,325,820	1,248,536	77,284	6%
Inter-governmental Outreach	275,742	306,479	-30,737	-10%
Total - Global Cooperation	**2,413,794**	**2,269,206**	**144,588**	**6%**
Facilities	678,953	648,106	30,847	5%
Finance & Administration	1,341,489	1,508,088	-166,599	-11%
Human Resource Management	1,155,239	1,049,628	105,611	10%
Legal & Governance	873,320	787,186	86,134	11%
Total - Corporate	**4,049,001**	**3,993,008**	**55,993**	**1%**
Total - Expenses	**22,974,649**	**22,928,778**	**45,871**	**0%**

Expenses by Activity

Whilst the costs of the actual activities overall aligned with the budget profile, major variance are:

Serving Members:
- **Member Training** was below budget by $190K, this variance is primarily caused by underspend in Salaries & Personnel, highlighting the difficulty in finding suitable applicants to fill vacancies in the training team. This has also resulted in some reduction in travel costs. Some of these savings are offset by increase in professional fees paid to community trainers and other consultants.

Regional Development:
- Expenses related to **APNIC Foundation** and **Community Engagement activities** exceeded the budget provision, these variances were related to travel and the timing of personnel costs.

Global Cooperation:
- **Global Research activities** were higher than budget driven by higher than anticipated expenditure on Google advertising and on cloud solutions. **Global Technical Community activities** exceeded the budget provision, these costs related to travel, particularly extra travel for cooperation activities with AFRINIC, some of these costs were offset by APNIC's share of NRO expenses below the budget provision.

Corporate:
- **Finance & Administration** was below budget by $167K, savings in Salaries & Personnel and Travel expenses are the major contributors to this variance which is caused by the delay in filling vacant roles in the Business team. **Human Resource Management** was above budget, caused by costs related to Product Management training and costs related to the implementation of the new HRIS System. **Legal & Governance** costs were higher than anticipated, primarily in relation to Legal fees and Insurance costs.

Statement of Financial Position

Amount (AUD)	Year End 2019	Year End 2018	Change	% Change
ASSETS				
Total Current Assets	10,508,471	10,119,457	389,014	4%
Total Non-Current Assets	35,186,026	32,620,117	2,565,910	8%
TOTAL ASSETS	45,694,497	42,739,574	2,954,923	7%
LIABILITIES				
Total Current Liabilities	13,538,676	13,213,692	324,984	2%
Total Non-Current Liabilities	1,431,119	704,897	726,222	103%
TOTAL LIABILITIES	14,969,795	13,918,589	1,051,207	8%
NET ASSETS/ TOTAL EQUITY	30,724,702	28,820,985	1,903,717	7%

All amounts in AUD – Australian Dollars

APNIC's Reserve
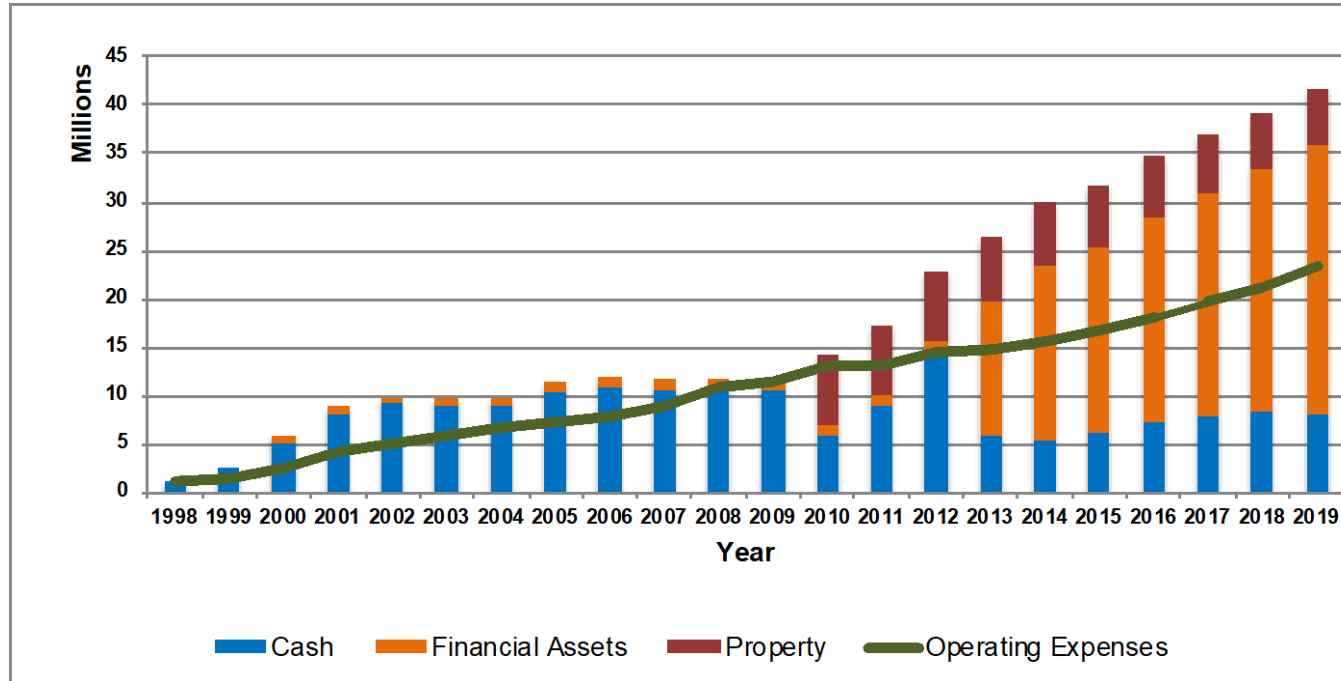
All amounts in AUD – Australian Dollars

Financial Stability Measure

	2019	2018	2017	2016	2015
Total Equity (AUD)	$30,724,702	$28,820,985	$27,708,013	$25,647,507	$23,319,460
% Equity covered by Cash/ Cash Equivalents	116.9%	115.6%	111.0%	110.6%	121.6%
Actual Daily Operating Expenses (AUD)	$62,944	$58,122	$53,909	$49,430	$46,077
Number of Months of expenses covered by Equity	16.05	16.30	16.90	17.01	16.64

Target of 18 months of Operating expenses

All amounts in AUD – Australian Dollars

Membership Growth

Membership fees	2013	2014	2015	2016	2017	2018	2019
Extra Large	20	21	22	22	23	24	24
Very Large	43	40	44	43	41	44	46
Large	147	142	137	143	138	143	143
Medium	392	402	431	449	473	483	493
Small	1,198	1,388	2,165	2,643	2,971	3,376	3,601
Very Small	1,294	1,701	2,336	2,590	2,769	2,967	3,334
Associate	957	924	133	109	132	125	135
Total	4,051	4,618	5,268	5,999	6,547	7,162	7,776
New	813	805	968	1,048	849	825	838
Close	296	238	318	322	296	210	224
Total	517	567	650	726	553	615	614
Average Monthly Gain	43	47	54	61	46	51	51

Membership Growth

Membership by Economy

Membership by Economy

- Other, 12%
- AU, 25%
- HK, 12%
- BD, 11%
- IN, 7%
- NZ, 5%
- AP, 5%
- JP, 4%
- SG, 5%
- CN, 4%
- MY, 4%
- PH, 3%
- TH, 3%
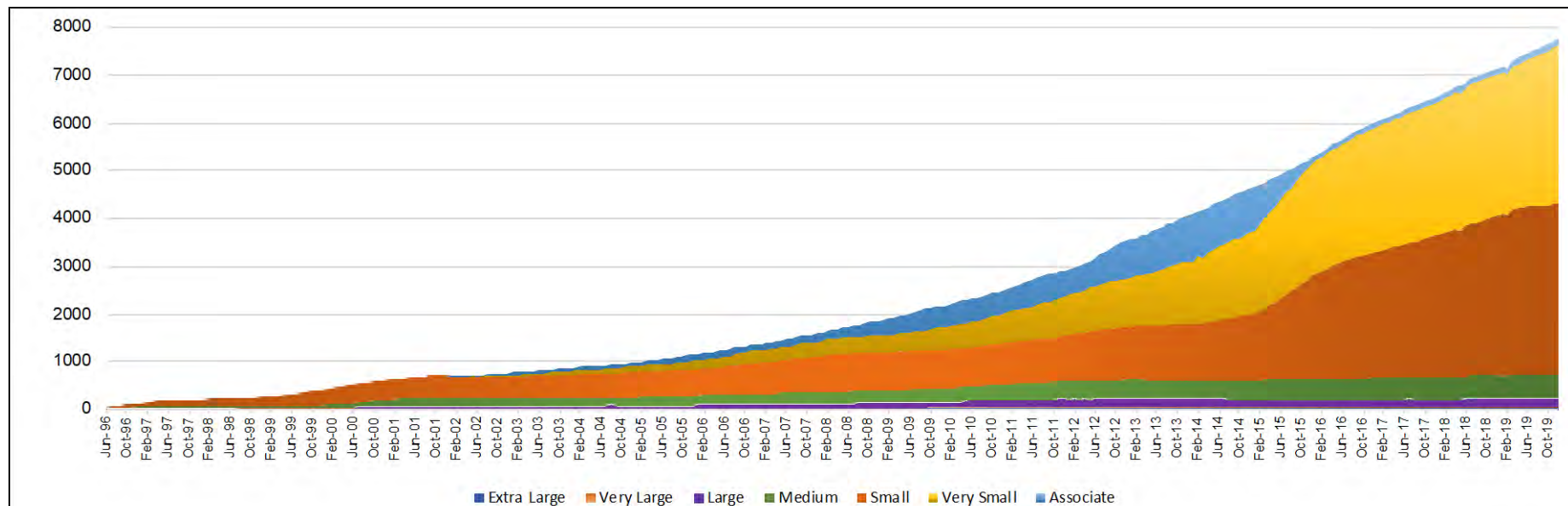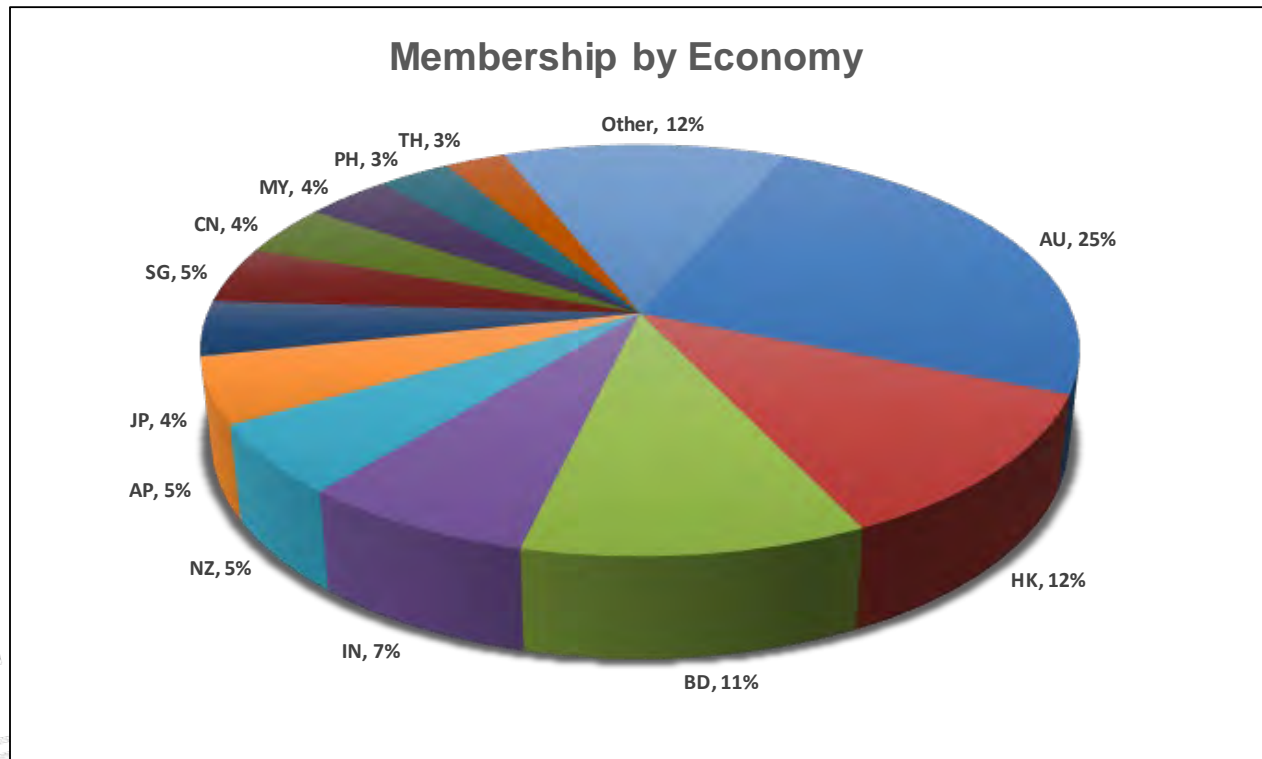
Audit

Audit Rotation Policy:

- APNIC appointed new external auditors in 2019 as per the Executive Council policy. Deloitte undertook the audit of 2019 accounts, the first year of their 2-year term as APNIC auditor.

Audit Outcome:

- Deloitte provided an unqualified audit opinion.

    – The accounts give a true and fair view of APNIC's financial position

    – Comply with the relevant accounting standards

Update to 2020 Budget

Budget 2020

- Approved draft budget at December EC Retreat

- Subsequent agenda item approved changes to APNIC's Fee Schedules

  – No Impact on approved expenditure

  – Impact the 2020 Revenue estimate and the underlying surplus/deficit estimates

Summary of Fee Changes

From 1 January 2020, on renewal of Member and Non-Member accounts, APNIC annual fees will be calculated using the following parameter values:

- The 'Base Fee' for Members will return to AUD 1,180 from AUD 1,050.

- The 'Base Fee' for Non-Members will return to AUD 1,357 from AUD 1,200.

- The 'Bit Factor' for both Members and Non-Members will return to 1.30 from 1.308

Estimated financial impact of fee changes

Revenue	Approved Budget 2020	Fee Change	Revised Budget 2020
Membership Fees	21,699,005	926,000	22,625,005
Non-Member Fees	260,000	5,300	265,300
Reactivation Fees	25,000		25,000
Sign-Up Fee	331,750		331,750
Transfer Fee	250,000	19,400	269,400
Sundry Income	387,778		387,778
Total Operating Revenue	**22,953,533**	**950,700**	**23,904,233**
Investment Income	965,000		965,000
Total Income	**23,918,533**	**950,700**	**24,869,233**

Estimated financial impact of fee changes

Financial Performance	Approved Budget 2020	Fee Change	Revised Budget 2020
Operating Revenue	22,953,533	950,700	23,904,233
Less: Operating Expenses	21,419,309	-	21,419,309
Operating Surplus/(Deficit)	**1,534,224**	**950,700**	**2,484,924**
Income from Financial Investments	965,000		965,000
Less: Investments in new initiatives	2,873,714		2,873,714
Investing Surplus/(Deficit)	**(1,908,714)**		**(1,908,714)**
Total Surplus/(Deficit)	**(374,491)**	**950,700**	**576,209**

Thank you

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MELBOURNE, AUSTRALIA 12 – 21 February 2020

25 YEARS

CREDIT SUISSE

Investment Report 1.12.2019 – 31.12.2019

APNIC PTY LTD

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Private Banking

Investment Report 1.12.2019 – 31.12.2019

Portfolio	**3000039-70**	APNIC PTY LTD
		PO BOX 3646
In the Name of	APNIC PTY LTD	SOUTH BRISBANE, QLD 4101
		AUSTRALIA

Produced on	7.1.2020
Reporting Currency	AUD
Relationship Manager	Patrick Armitage
Phone	+61 2 8205 4451

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Scope of Analysis
as of 31.12.2019

Components	Portfolio	Asset Value in AUD	Discretionary Mandate	Opened	Closed	Performance Activation	Performance Deactivation
Investment related Positions							
AUD Portfolio	3000039-70	27,702,841	Yes	16.08.2013		31.12.2013	
Total Wealth		**27,702,841**					

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1. Overview

1.1. Asset Allocation

Asset Allocation by Asset Category
Period 1.12.2019 - 31.12.2019

	Beginning Market Value in AUD	Change	Ending Market Value in AUD	Ending Market Value Prop.
Liquidity & Similar Investments	1,050,510	-37,307	1,013,203	3.66%
Fixed Income & Similar Investments	15,311,645	-264,107	15,047,538	54.32%
Equities & Similar Investments	6,696,643	-114,953	6,581,690	23.76%
Alternative Investments, Commodities & Real Estate	5,079,699	-19,290	5,060,410	18.27%
Total Investments	**28,138,498**		**27,702,841**	**100.00%**
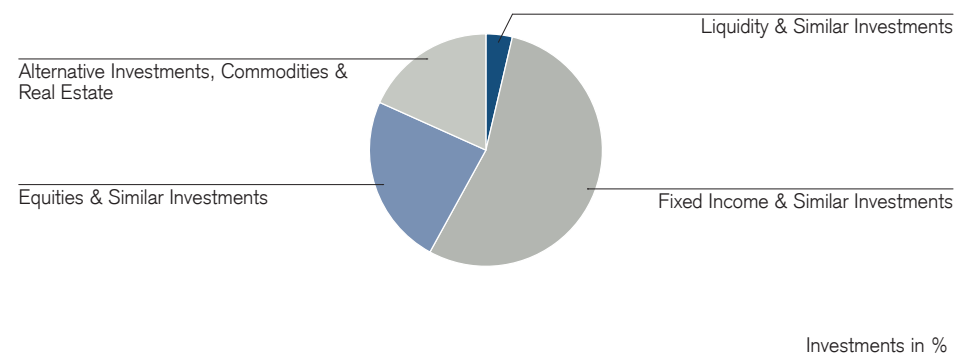
Asset Allocation by Currency
Period 1.12.2019 - 31.12.2019

	Beginning Market Value in AUD	Change	Ending Market Value in AUD	Ending Market Value Prop.
AUD - Australian Dollar	24,361,942	-432,102	23,929,840	86.38%
USD - US Dollar	2,785,695	-4,793	2,780,902	10.04%
EUR - Euro	705,379	3,286	708,665	2.56%
JPY - Japan Yen	210,070	-1,862	208,208	0.75%
CHF - Swiss Franc	75,385	-185	75,200	0.27%
GBP - Pound Sterling	27	0	26	
Total Investments	**28,138,498**		**27,702,841**	**100.00%**

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

Investments in %

CHF
JPY
EUR
USD
AUD

Investments in %
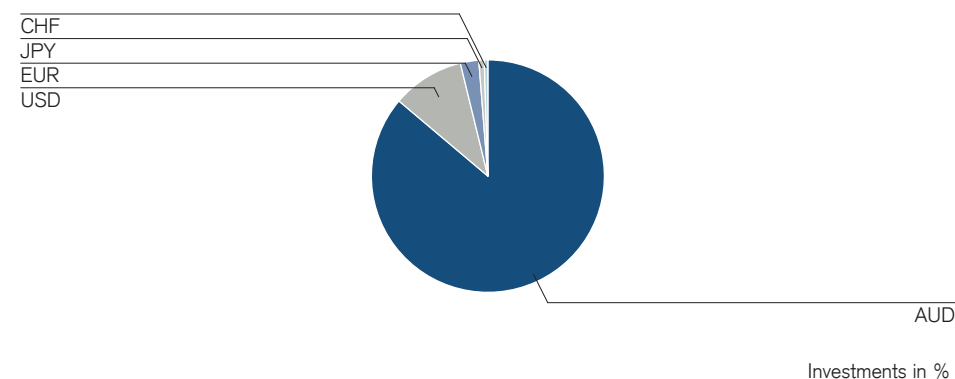
1.2.   Income and Activity

Income Summary
Period 1.12.2019 - 31.12.2019

	Current Period in AUD	Year to Date in AUD
Cash Dividend	22,179	800,184
Coupon Received/Paid	0	19,964
Interest Earned	809	12,805
Interest Paid	0	0
Net Income	**22,988**	**832,953**

Activity Summary
Period 1.12.2019 - 31.12.2019

	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 1.12.2019 - 31.12.2019

	Asset Value in AUD	Asset Value in AUD
Ending Market Value		27,702,841
Beginning Market Value		28,138,498
Asset Flows including		-3,803
Inflows	0	
Outflows	0	
Net Non-Investment Flows	0	
Taxes	-3,803	
Flow Adjusted Value Change		-431,854
Cumulative Portfolio Return – net		**-1.53%**
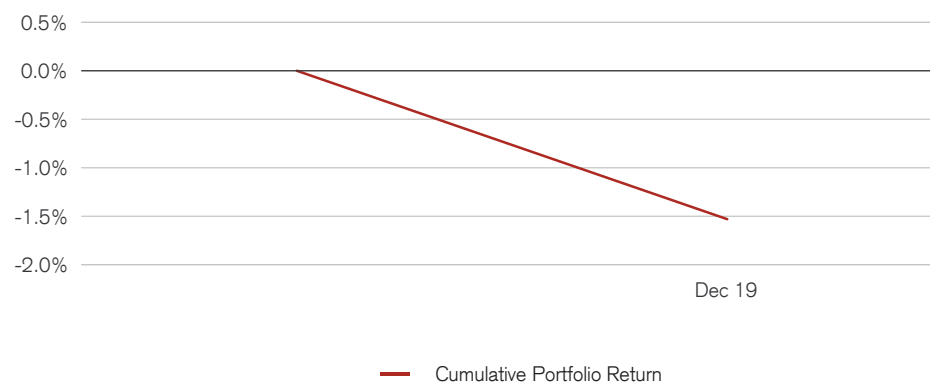
Performance Year-to-date
Period 1.1.2019 - 31.12.2019

	Asset Value in AUD	Asset Value in AUD
Ending Market Value		27,702,841
Beginning Market Value		24,886,409
Asset Flows including		-14,602
Inflows	0	
Outflows	0	
Net Non-Investment Flows	0	
Taxes	-14,602	
Flow Adjusted Value Change		2,831,034
Cumulative Portfolio Return – net		**11.38%**

Cumulative Portfolio Return

Cumulative Portfolio Return

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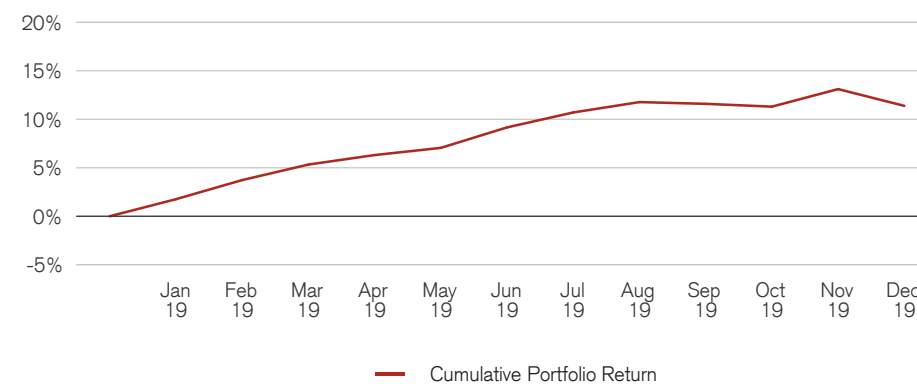
2. Analyses

2.1. Performance

Performance Details
Period 1.12.2018 - 31.12.2019

	Since Start of Period	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19
Ending Market Value	24,886,409	25,323,834	25,815,306	26,209,883	26,453,089	26,637,075	27,159,199	27,542,976	27,808,588	27,758,521	27,687,497	28,138,498	27,702,841
Beginning Market Value	24,674,468	24,886,409	25,323,834	25,815,306	26,209,883	26,453,089	26,637,075	27,159,199	27,542,976	27,808,588	27,758,521	27,687,497	28,138,498
Asset Flows including	-3,393	0	0	-3,452	0	0	-3,601	0	0	-3,746	0	0	-3,803
Inflows	0	0	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	-3,393	0	0	-3,452	0	0	-3,601	0	0	-3,746	0	0	-3,803
Flow Adjusted Value Change	215,334	437,425	491,472	398,029	243,207	183,985	525,725	383,777	265,613	-46,321	-71,024	451,001	-431,854
■ Portfolio Return – net	**0.87%**	**1.76%**	**1.94%**	**1.54%**	**0.93%**	**0.70%**	**1.97%**	**1.41%**	**0.96%**	**-0.17%**	**-0.26%**	**1.63%**	**-1.53%**
— Cumulative Portfolio Return	**0.87%**	**2.65%**	**4.64%**	**6.25%**	**7.24%**	**7.98%**	**10.11%**	**11.67%**	**12.75%**	**12.56%**	**12.27%**	**14.10%**	**12.35%**

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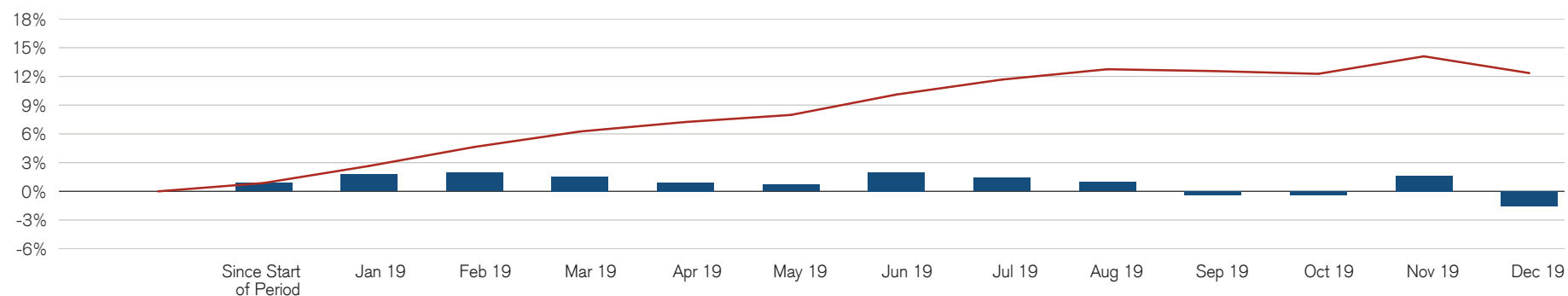
3. Positions

3.1. Investment Related Positions
as of 31.12.2019

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 237,459.93	Current Account -20300003970945		1.0000		237,460		
					0.86%		
CHF 51,004.80	Current Account -20300003970010		1.0000 0.6806 AUD/CHF		75,200	257	0.34%
					0.27%	257	0.34%
EUR 958.42	Current Account -20300003970056		1.0000 1.6245 EUR/AUD		1,532	-25	-1.58%
					0.01%	-25	-1.58%
GBP 13.97	Current Account -20300003970089		1.0000 1.8067 GBP/AUD		26	1	3.57%
						1	3.57%
JPY 235,584	Current Account -20300003970335		1.0000 72.0824 AUD/JPY		3,093	-175	-5.36%
					0.01%	-175	-5.36%
USD 18,798.98	Current Account -20300003970780		1.0000 0.6816 AUD/USD		26,822	-759	-2.75%
					0.10%	-759	-2.75%
Total Accounts					**344,134** **0** **1.24%**		

CREDIT SUISSE

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 669,000	0.94% Deposit - Fixed Term (MM1936101070) 27.12.2019 - 17.01.2020 Total interest at maturity: AUD 361.81		1.0000		669,069 69 2.42%		
Total Call & Time Deposits					669,069 69 2.42%		
Total Liquidity & Similar Investments					**1,013,203** **69** **3.66%**		
Fixed Income & Similar Investments							
Fixed Income & Similar Investments AUD							
AUD 690,500	4 % NOTES NEW SOUTH WALES TREASURY CORP 2014-20.5.26 Duration: 5.6998 / Rating: S&P AAA Yield to Maturity: 1.40%	AU3SG0001373 25197437	116.5950%	115.5014% MID 31.12.2019	800,648 3,111 2.89%	-7,551 -7,551	-0.94% -0.94%
AUD 723,000	3 % NOTES NEW SOUTH WALES TREASURY CORP 2016-20.02.30 Duration: 8.7414 / Rating: S&P AAA Yield to Maturity: 1.77%	AU3SG0001571 33439509	109.9290%	110.7805% MID 31.12.2019	808,782 7,839 2.92%	6,156 6,156	0.77% 0.77%
AUD 2,703,381.38	UNITS -D- ISHARES AUSTRALIAN BOND INDEX FUND	AU60BGL01056 2244170	1.0280	1.0954 NAV 31.12.2019	2,961,403 10.69%	182,267 182,267	6.56% 6.56%
AUD 1,727.084	UNITS - INSTITUTIONAL - PIMCO AUSTRALIAN BOND FUND	AU60ETL01152 3432899	1,112.2915	1,120.9249 NAV 31.12.2019	1,935,931 6.99%	14,911 14,911	0.78% 0.78%
AUD 2,809,325.647	UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A-	AU60SSB01221 2248336	1.2105	1.2926 BID 31.12.2019	3,631,362 13.11%	230,745 230,745	6.79% 6.79%

3. Positions / 3.1. Investment Related Positions

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CREDIT SUISSE

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	4,117,251.96	UNITS VANGUARD AUSTRALIAN FIXED INTEREST INDEX FUND	AU60VAN00014 1653500	1.1438	1.1924 NAV 31.12.2019	4,909,411 17.72%	199,956 199,956	4.25% 4.25%
Total Fixed Income & Similar Investments						**15,047,538** **10,950** **54.32%**		

Equities & Similar Investments

Equities & Similar Investments AUD

AUD	4,978	REGISTERED SHS AUSTRALIA & NEW ZEALAND BANKING GROUP LTD	AU000000ANZ3 640139 ANZ.AX	29.6884	24.6300 CLO 31.12.2019	122,608 0.44%	-25,181 -25,181	-17.04% -17.04%
AUD	12,695	REGISTERED SHS AURIZON HOLDINGS LTD	AU000000AZJ1 20175896 AZJ.AX	5.2497	5.2300 CLO 31.12.2019	66,395 0.24%	-250 -250	-0.37% -0.37%
AUD	7,098	REGISTERED SHS BHP GROUP LTD	AU000000BHP4 640390 BHP.AX	29.2278	38.9200 CLO 31.12.2019	276,254 1.00%	68,795 68,795	33.16% 33.16%
AUD	2,020	REGISTERED SHS CARSALES.COM LTD	AU000000CAR3 10476764 CAR.AX	15.7722	16.6100 CLO 31.12.2019	33,552 0.12%	1,692 1,692	5.31% 5.31%
AUD	3,138	REGISTERED SHS COMMONWEALTH BANK OF AUSTRALIA	AU000000CBA7 646758 CBA.AX	77.1771	79.9000 CLO 31.12.2019	250,726 0.91%	8,544 8,544	3.53% 3.53%
AUD	2,692	REGISTERED SHS COMPUTERSHARE LTD	AU000000CPU5 241285 CPU.AX	16.4600	16.7800 CLO 31.12.2019	45,172 0.16%	862 862	1.94% 1.94%

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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	1,135	REGISTERED SHS CSL LTD	AU000000CSL8 241548 CSL.AX	104.9787	275.7600 CLO 31.12.2019	312,988 1.13%	193,837 193,837	162.68% 162.68%
AUD	461	REGISTERED SHS FLIGHT CENTRE TRAVEL GROUP LTD	AU000000FLT9 90307 FLT.AX	47.1009	44.0600 CLO 31.12.2019	20,312 0.07%	-1,402 -1,402	-6.46% -6.46%
AUD	4,974	REGISTERED SHS FORTESCUE METALS GROUP LTD	AU000000FMG4 1655130 FMG.AX	7.5499	10.6900 CLO 31.12.2019	53,172 0.19%	15,619 15,619	41.59% 41.59%
AUD	1,589	CHESS UNITS OF FOREIGN SECURITIES JAMES HARDIE INDUSTRIES PLC	AU000000JHX1 1303670 JHX.AX	21.4806	27.8700 CLO 31.12.2019	44,285 0.16%	10,153 10,153	29.75% 29.75%
AUD	697	REGISTERED SHS MAGELLAN FINANCIAL GROUP LTD	AU000000MFG4 2807450 MFG.AX	24.2684	56.9500 CLO 31.12.2019	39,694 0.14%	22,779 22,779	134.67% 134.67%
AUD	1,136	REGISTERED SHS MACQUARIE GROUP LTD	AU000000MQG1 3422370 MQG.AX	67.5244	137.8500 CLO 31.12.2019	156,598 0.57%	79,890 79,890	104.15% 104.15%
AUD	4,889	REGISTERED SHS NATIONAL AUSTRALIA BANK LTD	AU000000NAB4 641643 NAB.AX	31.0600	24.6300 CLO 31.12.2019	120,416 0.43%	-31,436 -31,436	-20.70% -20.70%
AUD	2,117	REGISTERED SHS NEWCREST MINING LTD	AU000000NCM7 650853 NCM.AX	27.6787	30.2500 CLO 31.12.2019	64,039 0.23%	5,443 5,443	9.29% 9.29%

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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	4,289	REGISTERED SHS ORIGIN ENERGY LTD	AU000000ORG5 1051439 ORG.AX	8.7251	8.4500 CLO 31.12.2019	36,242 0.13%	-1,180 -1,180	-3.15% -3.15%
AUD	10,157	REGISTERED SHS QANTAS AIRWAYS LTD	AU000000QAN2 390413 QAN.AX	6.4042	7.1100 CLO 31.12.2019	72,216 0.26%	7,169 7,169	11.02% 11.02%
AUD	1,479	REGISTERED SHS RIO TINTO LTD	AU000000RIO1 603520 RIO.AX	66.4031	100.4000 CLO 31.12.2019	148,492 0.54%	50,281 50,281	51.20% 51.20%
AUD	3,559	SHS RESMED INC CHESS DEPOSITORY INTERESTS REPR 1/10 SH	AU000000RMD6 1058638 RMD.AX	12.9217	21.9000 CLO 31.12.2019	77,942 0.28%	31,954 31,954	69.48% 69.48%
AUD	4,282	REGISTERED SHS RELIANCE WORLDWIDE CORPORATION LTD	AU000000RWC7 32257237 RWC.AX	4.6640	4.0400 CLO 31.12.2019	17,299 0.06%	-2,672 -2,672	-13.38% -13.38%
AUD	60,356	UNITS SPDR S&P/ASX 200 LISTED PROPERTY FUND EXCHANGE TRADED FUND	AU000000SLF1 1377855 SLF.AX	12.8749	13.8500 CLO 31.12.2019	835,931 3.02%	58,852 58,852	7.57% 7.57%
AUD	2,228	UNITS SPDR S&P/ASX 200 FUND ETF AUSTRALIAN EQUITY EXCHANGE TRADED FUNDS	AU000000STW9 1285707 STW.AX	59.6671	61.8200 CLO 31.12.2019	137,735 0.50%	4,797 4,797	3.61% 3.61%
AUD	2,024	REGISTERED SHS SUNCORP GROUP LTD	AU000000SUN6 588679 SUN.AX	14.2141	12.9600 CLO 31.12.2019	26,231 0.09%	-2,538 -2,538	-8.82% -8.82%

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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	4,877	STAPLED SECURITY TRANSURBAN GROUP	AU000000TCL6 444655 TCL.AX	11.4916	14.9100 CLO 31.12.2019	72,716 0.26%	16,672 16,672	29.75% 29.75%
AUD	10,873	REGISTERED SHS TELSTRA CORPORATION LTD	AU000000TLS2 720464 TLS.AX	4.9151	3.5400 CLO 31.12.2019	38,490 0.14%	-14,951 -14,951	-27.98% -27.98%
AUD	3,165	SHS VANGUARD MSCI AUSTRALIAN SMALL COMPANIES INDEX ETF EXCHANGE TRADED FUND	AU000000VSO2 13053435 VSO.AX	59.5040	60.0600 CLO 31.12.2019	190,090 0.69%	1,760 1,760	0.93% 0.93%
AUD	7,677	REGISTERED SHS WESTPAC BANKING CORP	AU000000WBC1 642372 WBC.AX	31.1321	24.2300 CLO 31.12.2019	186,014 0.67%	-52,987 -52,987	-22.17% -22.17%
AUD	834	REGISTERED SHS WESFARMERS LTD	AU000000WES1 642397 WES.AX	31.3065	41.4000 CLO 31.12.2019	34,528 0.12%	8,418 8,418	32.24% 32.24%
AUD	2,738	REGISTERED SHS WOOLWORTHS GROUP LTD	AU000000WOW2 81350 WOW.AX	29.1782	36.1600 CLO 31.12.2019	99,006 0.36%	19,116 19,116	23.93% 23.93%
AUD	2,719	REGISTERED SHS WOODSIDE PETROLEUM LTD	AU000000WPL2 642429 WPL.AX	35.0354	34.3800 CLO 31.12.2019	93,479 0.34%	-1,782 -1,782	-1.87% -1.87%
AUD	6,154	STAPLED SECURITY ATLAS ARTERIA	AU0000013559 41318093 ALX.AX	7.7055	7.8300 CLO 31.12.2019	48,186 0.17%	766 766	1.62% 1.62%

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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	4,901	UNITS VANECK VECTORS MSCI AUSTRALIAN SUSTAINABLE EQUITY ETF EXCHANGE TRADED FUND	AU0000050353 48632714 GRNV.AX	26.6460	26.5800 CLO 31.12.2019	130,269 0.47%	-323 -323	-0.25% -0.25%
AUD	0	UNITS ABERDEEN STANDARD EMERGING OPPORTUNITIES FUND	AU60ETL00329 2220820		2.4170 NAV 31.12.2019			
AUD	3,764	REGISTERED SHS THE A2 MILK COMPANY LTD	NZATME0002S8 1841567 A2M.AX	14.2059	14.3000 CLO 31.12.2019	53,825 0.19%	354 354	0.66% 0.66%
Total Equities & Similar Investments AUD						**3,904,902** **0** **14.10%**		
Equities & Similar Investments EUR								
EUR	10,406	SHS EUR ISHARES II PLC - ISHARES CORE MSCI EUROPE UCITS ETF	IE00B1YZSC51 3246398 IQQY.DE	24.0127 1.5687 EUR/AUD	26.0200 OFF 30.12.2019	432,914 1.56%	40,933 33,398 7,535	10.44% 8.36% 2.08%
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	18.4319 NAV 31.12.2019	274,219 0.99%	84,414 68,210 16,204	44.47% 33.11% 11.36%
Total Equities & Similar Investments EUR						**707,133** **0** **2.55%**		

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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 JPY								
JPY	640	UNITS NIKKEI 225 EXCHANGE TRADED FUND	JP3027650005 1264151 1321.T	18,961.5313 87.7787 AUD/JPY	24,410.0000 CLO 30.12.2019	205,115 0.74%	66,865 45,783 21,082	48.37% 28.73% 19.63%
Total Equities & Similar Investments JPY						205,115 0 0.74%		
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	488.7500 CLO 30.12.2019	172,941 0.62%	116,413 101,377 15,036	205.94% 141.66% 64.28%
USD	83.17	RED.PTG.SHS -C- CS RENAISSANCE EQUITY ACCESS FUND LTD	KYG258691271 39462785	1,135.2262 0.6894 AUD/USD	1,202.9670 EST 27.12.2019	142,751 0.52%	5,791 8,039 -2,247	4.23% 5.97% -1.74%
USD	10,609	SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS EMERGING MARKETS EQUITY PORTFOLIO CAPITALISATION	LU0830622741 19578737	14.0003 0.7010 AUD/USD	15.2400 NAV 31.12.2019	230,685 0.83%	18,792 18,766 26	8.87% 8.86% 0.01%
USD	2,519	SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS INDIA EQUITY PORTFOLIO CAPITALISATION	LU0830624010 19584199	18.7600 0.6751 AUD/USD	19.6500 NAV 31.12.2019	70,624 0.25%	630 3,199 -2,569	0.90% 4.74% -3.84%
USD	26,274	SHS -UCITS ETF USD C- AMUNDI INDEX SOLUTIONS SICAV - AMUNDI MSCI EMERGING MARKETS CAPITALISATION	LU1681045453 38785088 AUEM.PA	4.8361 0.7583 AUD/USD	5.0176 CLO 31.12.2019	188,097 0.68%	20,527 6,805 13,722	12.25% 3.75% 8.50%

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	1,707	TRUST UNITS SPDR S&P 500 ETF TRUST	US78462F1030 45088 SPY.P	208.1052 0.8218 AUD/USD	321.8600 CLO 31.12.2019	783,899 2.83%	351,612 277,053 74,559	81.34% 54.66% 26.68%
USD	2,629	SHS FINANCIAL SELECT SECTOR SPDR FUND	US81369Y6059 986018 XLF.P	26.7866 0.6708 AUD/USD	30.7800 CLO 31.12.2019	115,457 0.42%	10,467 14,979 -4,513	9.97% 14.91% -4.94%
USD	172	SHS VANGUARD INFORMATION TECHNOLOGY ETF	US92204A7028 1781764 VGT.P	205.4900 0.7128 AUD/USD	244.8500 CLO 31.12.2019	60,088 0.22%	10,503 9,659 844	21.18% 19.15% 2.03%
Total Equities & Similar Investments USD						1,764,541 0 6.37%		
Total Equities & Similar Investments						6,581,690 0 23.76%		

Alternative Investments, Commodities & Real Estate

Hedge Funds

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	510,393.378	UNITS GMO SYSTEMATIC GLOBAL MACRO TRUST CLASS -B-	AU60GMO00067 3375604	1.0073	0.9707 NAV 31.12.2019	495,439 1.79%	-18,694 -18,694	-3.64% -3.64%
AUD	396,717.07	UNITS BLACKROCK GLOBAL ALLOCATION FUND (AUST) CLASS -D- WHOLESALE	AU60MAL00181 3379478	1.2368	1.2730 NAV 31.12.2019	505,039 1.82%	14,392 14,392	2.93% 2.93%
AUD	159,505	RED.PTG.SHS -A1- AHL (CAYMAN) SPC AUD CLASS A EVOLUTION SEGREGATED PORTFOLIO	KYG012291145 22393979	1.1382	1.9752 NAV 30.11.2019	315,054 1.14%	133,504 133,504	73.54% 73.54%

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	149	RED.PTG.SHS -A- CS RENAISSANCE ALTERNATIVE ACCESS FUND LTD USD	KYG258511099 34032546	1,160.0017 0.7191 AUD/USD	1,207.7398 EST 27.12.2019	256,755 0.93%	16,399 10,149 6,250	6.82% 4.12% 2.71%
AUD	336,341.333	RED.PTG.SHS -A- AHL DIMENSION (CAYMAN) LIMITED AUD	KYG0132G1652 30773689	0.9991	1.1383 NAV 30.11.2019	382,857 1.38%	46,809 46,809	13.93% 13.93%
Total Hedge Funds						**1,955,145** **0** **7.06%**		
Private Equity								
AUD	123,225.67	UNITS PARTNERS GROUP GLOBAL VALUE FUND (AUD) WHOLESALE	AU60ETL02762 26607292	1.8783	2.3703 NAV 30.11.2019	292,082 1.05%	60,625 60,625	26.19% 26.19%
Total Private Equity						**292,082** **0** **1.05%**		
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	204.0700 CLO 31.12.2019	782,200 2.82%	212,482 212,482	37.30% 37.30%
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	885.5000 CLO 30.12.2019	732,784 2.65%	32,720 -101,704 134,424	4.67% -12.19% 16.86%
Total Commodities & Precious Metals						**1,514,984** **0** **5.47%**		

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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 %
Real Estate								
AUD	29,023	STAPLED SECURITY DEXUS	AU000000DXS1 3819970 DXS.AX	11.3075	11.7000 CLO 31.12.2019	339,569 1.23%	11,393 11,393	3.47% 3.47%
AUD	23,058	STAPLED SECURITY GOODMAN GROUP	AU000000GMG2 18079202 GMG.AX	8.8381	13.3700 CLO 31.12.2019	308,285 1.11%	104,497 104,497	51.28% 51.28%
AUD	44,739	STAPLED SECURITY MIRVAC GROUP	AU000000MGR9 821911 MGR.AX	1.8439	3.1800 CLO 31.12.2019	142,270 0.51%	59,778 59,778	72.46% 72.46%
Total Real Estate						**790,125** **0** **2.85%**		
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	117.9100 NAV 31.12.2019	508,074 1.83%	69,806 69,806	15.93% 15.93%
Total Other Alternative Investments						**508,074** **0** **1.83%**		
Total Alternative Investments, Commodities & Real Estate						**5,060,410** **0** **18.27%**		
Total Investments						**27,702,841** **100.00%**		
of which Accrued Interest						11,019		

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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
OFF	=	Official Price

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 31.12.2019

AUD 1.0000 = CHF 0.6783
AUD 1.0000 = JPY 76.1641
AUD 1.0000 = USD 0.7009

EUR 1.0000 = AUD 1.5989
GBP 1.0000 = AUD 1.8713

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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.

APNIC Monthly Reporting
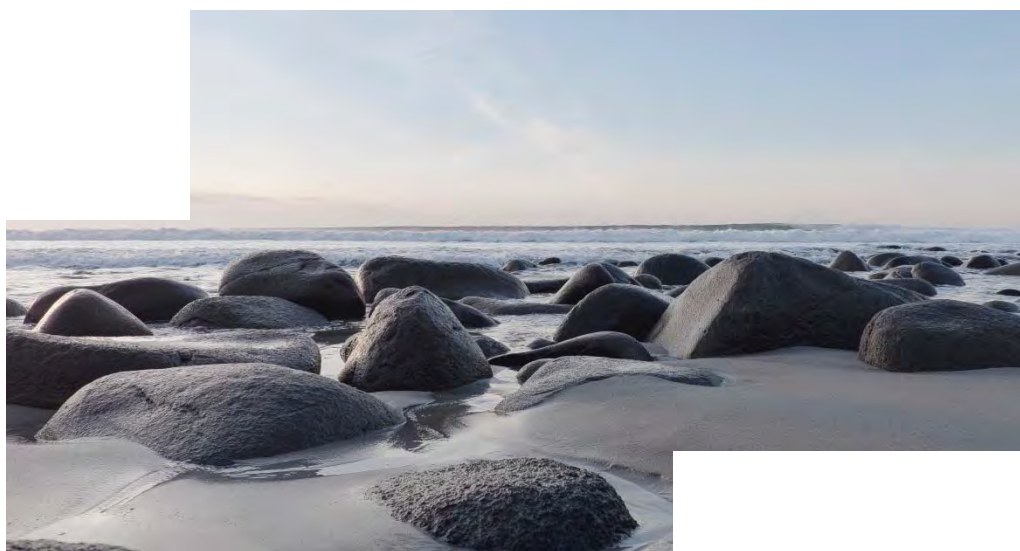
Summary

- The APNIC portfolio was negative in December, down 1.49% for the month, as AUD bonds fell -1.64% as yields rose.

- Global equities ex-Australia rose 2.77% in USD terms during the month on the back of trade optimism and improving economic data but the stronger AUD was a headwind for Australian investors with a -0.79% return in AUD terms.

- Australian equities fell -2.17% during the month.

Market Commentary

December saw geopolitical tensions ease as the US-China trade war deescalated on the back of a "phase one" agreement and hard BREXIT concerns dissipated following a landslide win by Boris Johnson and the Conservative party in the UK election. This boosted sentiment across financial markets and saw strong rallies in most major equity markets. However, the stronger AUD reduced returns for the US, European and Emerging Markets equities in AUD terms to -0.93%, 0.18% and 3.48%, respectively. Having run at a premium to global equities for some time, Australian equities saw profit taking in December, which resulted in the local share market falling -2.17%. Australian bonds followed global sentiment, falling -1.64% as yields rose.

The Australian economy continues to lack momentum with economic indicators sending mixed signals. According to CoreLogic, the housing market improved with dwelling prices continuing on an upward trajectory in December to the tune of 1.2%. However, the low volume of property on the market itself and meagre housing credit growth of 0.2% in November tempers the positive signal. Retail sales growth may have weakened with non-food retail trade appearing subdued after the Black Friday sales period and bush fires threatening food supply chains. In the labour market, 39,900 jobs were added to the economy in November, bringing unemployment down from 5.3% to 5.2%. However, this follows a weak October reading and remains a long way from the RBA's aim for 4.5%. The mixed signals did not trigger any rate moves from the RBA.

In the US, some macroeconomic data moderated slightly but forward indicators continued to portray a healthy economy. Retail sales grew just 0.2% in November but the outlook for consumer spending is more optimistic. The NAHB/Wells Fargo Housing Market Index signalled an upbeat housing market with the reading reaching a 20 year high of 76 in December. The US University of Michigan Sentiment Index rose

to a 7 month high of 99.3, indicating improving consumer sentiment. On the manufacturing front, despite a decline of the US ISM Manufacturing PMI from 48.1 to 47.2 in December, PMIs compiled by most other providers provided positive signals that suggested a continuation of the recent industrial production recovery. The "phase one" US-China trade deal should add further support to this trend.

In Europe, the economy continues to show smalls signs of improvement. Although the December EU Markit Manufacturing PMI printed another contractionary reading of 46.3, it was ahead of economist expectations for 45.9. The services sector remains a pillar of support for the economy with the EU Markit Services PMI strengthening from 51.9 to 52.4 in December. Consumer confidence also saw a recovery with the Eurozone Sentix Index increasing from 0.7 to 7.6 in January and the Eurozone ZEW Survey improving from -1.0 to 11.2 in December.

Although the latest Chinese trade data showed a decrease in the economy's trade balance from USD 42.8 billion to USD 37.9 billion in November, this occurred prior to the announcement of the "phase one" US-China trade deal. In fact, subsequent tentative signs of stabilisation have emerged from manufacturing data with the Caixin Manufacturing PMI dropping slightly from 51.8 to 51.5 but still remaining in expansionary territory and the official NBS manufacturing remaining steady at 50.2 in December. Retail sales growth of 8% in November is ahead of economist expectations and adds another layer of optimism.

In the local market, the top performing sectors were Materials (+1.55%), Utilities (+0.78%) and Energy (-1.50%) while Consumer Staples (-8.03%), Communications (-5.80%) and Real Estate (-4.76%) were the worst performers.

Market Value as at 31 December 2019

	Market Value
APNIC Portfolio	A$27,716,518

Performance as of 31 December 2019

	APNIC Portfolio			
	Portfolio	Benchmark	Relative	CPI + 2.5%
Month	-1.49%	-1.23%	-0.26%	0.35%
3 Months	-0.14%	-0.07%	-0.07%	1.05%
Year To Date	11.43%	11.37%	+0.06%	4.17%
1 Year	11.43%	11.37%	+0.06%	4.17%
3 Years pa	6.40%	6.24%	+0.16%	4.38%
Since Inception pa	5.73%	5.88%	-0.15%	4.42%

* Performance is after fees but before franking

Positive Contributors to Performance

Funds performing best during the period included: Man AHL Evolution (4.80%), Legg Mason Western Asset Macro Opportunities Fund (3.47%) and Amundi Emerging Markets ETF (3.36%).

Australian stocks performing well included:

Fortescue Metals (+9.87%)
Improving confidence in the global growth environment and a strengthening in the iron ore price led to a rally in the share price of Australia's third largest iron ore miner. The strengthening of iron ore prices reflected signs of stronger steel demand in China and some softness in the rate of supply improvement expected from Brazil. Fortescue was unsuccessful in its bid for the Simandou project in Guinea implying its strong near-term cash flows will likely be returned to shareholders.

Magellan Financial (+8.50%)
The rally in global equity markets and consistent investment performance has continued to provide tailwinds to the growth in Magellan's funds under management. The group released a positive monthly update on its asset growth confirming a healthy net inflow profile. Since its last reporting date on 30th June 2019 the group has increased its assets under management by 12.7% to $97.7billion over five months.

Rio Tinto (+3.61%)
Improving investor confidence in the global growth environment has provided more confidence in resource exposures benefiting Rio Tinto. Given its large exposure to iron ore a near-term strengthening of this commodity price has also acted as a tailwind providing confidence of a buoyant stronger-for-longer profit outlook for the company.

Negative Contributors to Performance

Funds which did not perform as well over the month included: SPDR S&P/ASX 200 Listed Property ETF (-4.43%), Renaissance Alternative Access Fund (-4.03%) and SPDR S&P/ASX 200 ETF (-2.17%).

Australian stocks underperforming included:

Aurizon (-9.51%)
The company has announced approval by the Queensland regulator for the negotiated access arrangements with coal miners on its below rail track assets. This provides greater certainty and positive returns for Aurizon over the next seven years. Given the lack of negative news and a decline in the share price it appears investors have been taking profits following strong outperformance during the year.

Woolworths (-9.05%)
The company's AGM was relatively uneventful from an investment perspective with the company providing indications sales momentum has remained positive in the lead up to Christmas. Given recent investor rotation away from defensive exposures it appears the share price decline was driven by macro sentiment.

Asset Allocation

Asset Class	Tactical Position
Cash	Underweight
Bonds	Neutral
Australian Equities	Underweight
International Equities	Marginally Overweight
Alternative Investments	Marginally Overweight

Significant Portfolio Changes

Position	Comments
Atlas Arteria Group / Aurizon Holdings / Transurban	Increased / Increased / Decreased: Shift in weight of infrastructure sector stocks towards those looking relatively more attractive on valuation.

Outlook

December provided some positives for risk assets as various events and data points make us more confident as to our optimistic view for 2020. The crushing win in the UK parliamentary elections means that Prime Minister Boris Johnson and his Conservative Party have a large majority to govern. Parliament can now pass PM Johnson's Brexit deal and fiscal plans. Additionally, the US and China reached a trade agreement. As part of that deal, the USA will not charge China with additional tariffs and slightly reduced existing ones. China called off additional tariffs on some US goods. So, this is the first trade agreement that reduces tariffs instead of just delaying them which has been positive for risk sentiment. We think that the manufacturing cycle is in the process of bottoming out and that this should lead to a further easing of recession worries in the first half of 2020. Both the Fed and the European Central Bank have front-loaded monetary easing, which provides favourable financial conditions over our 3–6-month tactical horizon. However, we have downgraded our expectations as to Australian GDP growth for 2020 from 2.8% to 2.2%. This forecast still envisages a recovery ahead albeit a more muted one. Household spending is expected to pick up but not exceed 2%, as employment and wage growth stabilize and sentiment eventually improves. Elsewhere, private demand is still weighed down by residential investment and subpar business investment but net exports and public demand are strong contributors to growth. Should the economy deteriorate further in the near term we expect the RBA to announce an asset purchase program but this is a risk scenario (the main risk) at present. Overall, we enter 2020 overweight equities, with the US our most favoured region, but underweight Australian equities. The portfolio is close to neutral bonds in both weight and duration as we wait for confirmation of our positive global economic view.

Data Sources

Credit Suisse, unless otherwise specified.

Disclaimer

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Agenda Item 9
APNIC Survey

EXECUTIVE SUMMARY

Survey Matters has been working with APNIC on the biennial Member Survey since 2016. To ensure continuous improvement, we have reviewed previous approaches and outcomes, to determine where improvements can be made without impact to the intent and purpose of the program.

- Previous APNIC Member research has included both qualitative and quantitative methods. Including qualitative research is best practice and provides information to feed into the quantitative online survey with the full census of your Members and stakeholders.

- Previous qualitative approaches have included face to face and online focus groups in selected locations and individual interviews conducted either in person in the locations being visited, or via telephone.

- These collective approaches have provided great value and ensured that the APNIC research program followed best practice. However, the process involved in logistics and scheduling the focus groups is time consuming and costly.

- This is exacerbated by low attendance at many of the face to face focus groups, while in the online forums, poor internet quality in some locations has hampered quality discussions.

- Survey Matters analysed the outcomes from 2016 and 2018 to provide recommendations that will ensure APNIC follows best research practice, while reducing the overall administrative and cost burdens of the program.

- Our recommendations include substituting the face to face and online focus groups with individual interviews with selected key Members and stakeholders and expanding the use of language translation in the online survey.

QUALITATIVE RESEARCH

The information gathered from the qualitative aspect of previous programs has provided a valuable source of information for the online survey. The feedback from these has largely been validated in the results of the quantitative survey, which proves the benefits of speaking directly with different Members and stakeholders prior to running the survey.

For APNIC however, as well as the advantages the focus groups offer, there are limitations and disadvantages, which impact the outcomes.

- Best practice in research
- Direct contact with members
- Provides focus for quantitative survey
- Provides an additional 'touch point'

- Cost & resource barriers
- Non-attendance
- Cultural norms
- Language barriers

PREVIOUS CONSULTATIONS

- NIR attendance is good, (apart from South Korea), although some decline was experienced in China and India in 2018
- Member attendance is declining
- Cultural differences and language barriers may be impacting attendance

2016

13 ECONOMIES
12 FOCUS GROUPS
1 ONLINE GROUP

48% ATTENDANCE

161	78

■ Registered ■ Attended

In addition to the focus groups, six (6) individual interviews were conducted in 5 economies

2018

11 ECONOMIES
6 FOCUS GROUPS
5 ONLINE GROUPS

35% ATTENDANCE

93	33

■ Registered ■ Attended

In addition to the focus groups, eleven (11) individual interviews were conducted in 10 economies

NIR - 2016 Attendance

China	17
India	10
Japan	7
South Korea	2

NIR - 2018 Attendance

China	13
India	8
Taiwan	8
Indonesia	7

survey matters.
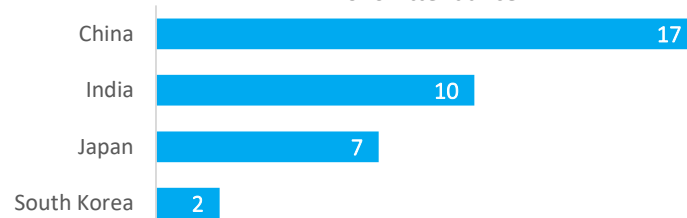
RECOMMENDATION – 2020 CONSULTATIONS

Our recommended approach is to substitute the face to face and online focus groups with individual telephone interviews across NIRs and selected APNIC Members and stakeholders. The advantage of this approach is that we are still having direct conversations with Members and stakeholders for input into the online survey, without the inherent limitations around cost, resource, language and attendance.

Discussion guides will still be used to ensure participants are all being asked about the same topics, and a report will be compiled at the conclusion, with responses used to feed into the online survey.

NIRS & NIR MEMBERS

- In 2016 and 2018, focus groups were held with four of the seven NIRs and NIR members, meaning some do not have the opportunity to contribute for at least four years. Vietnam has not been formally consulted since 2014.

- Individual interviews provides the opportunity to speak to all seven NIRs and their Members

- Alternatively, as attendance is larger at these forums, APNIC could consider conducting a focus group at each NIR, including NIR Members, however this will incur greater costs, and the issues of language and translation remain.

In our opinion, the same result will be achieved through telephone interviews with selected key representatives from each of the NIRs and their members.

APNIC MEMBERS & STAKEHOLDERS

- Conduct an analysis of the economies that have been consulted in 2014, 2016 and 2018 to determine the locations and economy types to focus on.

- Ensures that over time we are achieving a balanced representation in respect to regions and economies

- Recommend that in collaboration with APNIC, we identify suitable participants to approach for interviews, based on member and stakeholder type, size and dealings with APNIC.

- Ensures we are speaking to those who have a sound knowledge of the current environment and will be able to offer useful input

- Contingency for unavailability is to have a larger list of potential participants than required, and recruit as needed.

THREE-PHASED APPROACH

In formulating the optimum approach for APNIC for the 2020 program we have based the process around three distinct phases, with each phase designed to feed into the next.

1 CONSULTATIONS & REPORTING

2 SURVEY PREPARATION & LAUNCH

3 ANALYSIS & REPORTING

As per the recommended approach, conduct individual interviews with each of the NIRs and their Members, and selected APNIC Members and other stakeholders, using discussion guides to keep the conversations consistent.

Locations will be selected as per previous approaches, to ensure a balanced representation across economy types and locations.

Upon conclusion, the findings will be written into a report for APNIC and the EC, and this will be used to design the quantitative questionnaire.

During this phase we will draft the questionnaire for approval and program the survey software. We recommend that APNIC continue and expand the translation of the online survey into different languages, to allow as many Members and stakeholders as possible the opportunity to provide their feedback.

In 2018, the survey was translated into eight (8) languages - Bengali, Chinese (Simplified and Traditional), Indonesian, Japanese, Korean, Mongolian and Thai, and 31% of responses were completed in a language other than English.

We recommend expanding the translations further into Pashto, Dari, Urdu, Hindi, Malay, Filipino and Vietnamese.

On conclusion of the online survey, we analyse the results by key segments such as economy type and region to identify differences between the segments.

Any free text comments provided in languages other than English are translated back into English using google translate, and provided to APNIC for review.

A report with the full findings, including an Executive Summary and detailed methodology is prepared for APNIC for approval and publication, along with several appendices.

Summary findings are presented to the APNIC EC and to Members at the conference in September.

CONSULTATION PROCESS

17 - 28 FEBRUARY 2020*

2 - 13 MARCH 2020*

16 -23 MARCH 2020*

23 MARCH - 24 APRIL 2020*

PRESENT APPROACH & EC APPROVAL

Survey Matters presents recommended approach to the EC for review and discussion.

APNIC EC approves approach

LOCATION ANALYSIS & APPROVAL

Survey Matters completes analysis and makes a recommendation to APNIC and the EC around the locations and Member types (e.g. ISP, Telco etc.) for interview.

APNIC and the EC review and amend as required and provide approval to proceed.

DISCUSSION GUIDE & SCHEDULING

Write discussion guides in collaboration with APNIC.

Establish timelines, the number of facilitators required, suitable organisations / participants to approach, and contact details of potential participants.

Schedule interviews.

CONDUCT INTERVIEWS & REPORT

Conduct interviews with NIRs and their Members, APNIC Members and other stakeholders.

Compile report with findings for use in the quantitative survey.

NB: We have allowed six weeks for this activity, as it depends on participant availability etc.

*Start / finish dates

SURVEY PREPARATION & LAUNCH PROCESS

4 - 22 MAY 2020*

25 MAY – 5 JUNE 2020*

8 - 26 JUNE 2020*

29 JUNE – 24 JULY 2020*

QUESTIONNAIRE DESIGN

Using the outputs from the consultations, draft the survey questionnaire, ensuring tracking questions are included for benchmarking.

Submit to APNIC for review and further refinement.

APNIC provide final approval.

PROGRAM & TEST

Program the approved questionnaire in the software and conduct internal testing.

Provide links to APNIC for end-user testing and approval.

Upon approval, survey is placed in lock down to prevent any changes during language translations. **No changes can be made after this date.**

LANGUAGE TRANSLATIONS

Establish the languages other than English for translation, and complete translation in survey software.

Provide links and instructions to APNIC translators to review and edit survey for accuracy.

SURVEY LAUNCH

Provide survey link to APNIC for distribution.

Submit weekly reports on completions, including by economy, region and language used.

*Start / finish dates

ANALYSIS AND REPORTING PROCESS

27 JULY - 7 AUGUST 2020*

27 – 31 JULY 2020*

10 - 28 AUGUST 2020*

31 AUGUST - 7 SEPTEMBER 2020*

ANALYSIS

Using statistical software, group responses by agreed segmentation variables. Examine responses for each question by these variables to determine differences between segments and the extent to which these apply across the whole sample.

Identify and highlight significant differences between regions and / or economy type.

LANGUAGE CONVERSION TO ENGLISH

Convert the free text comments in other languages to English using Google translate.

Provide to APNIC for checking and editing is necessary.

REPORT PREPARATION & APPROVAL

Prepare and write draft report and submit to APNIC for review and feedback.

Incorporate feedback and provide final report, including appendices, to APNIC for publication.

PRESENT RESULTS

Prepare summary of the results for the EC.

Present findings at APNIC 50 in Dhaka.

*Start / finish dates

10

CONCLUSION

- The recommended approach allows us to streamline and simplify the effort and resources required to conduct the research project, without compromising research best practice

- Three distinct phases allow better management of timelines and identifies the core activities required in each phase

- Substituting focus groups for individual telephone interviews will allow us to continue to speak directly to Members for input into the online survey, with a lower impact to resources and cost

- One-on-one interviews conducted by telephone will overcome the attendance issues inherent in APNIC focus groups

- Expanding the languages the online survey is offered provides the potential for a greater number of responses. In 2018 we saw a much greater completion rate from Members in Bangladesh, Indonesia, Japan, Mongolia and Thailand, so we can assume this will be replicated in other countries.

Agenda Item 10
APNIC 49 EC Election procedures

APNIC Executive Council (EC) Election 2020

APNIC 49

APNIC EC Election 2020

- Three APNIC EC members are retiring by rotation after serving a two-year term
  - They are eligible for re-election under the APNIC By-laws

- Three vacant seats on the APNIC EC
  - Two-year term starting from being elected on 21 February 2020

- See: https://2020.apricot.net/elections

APNIC EC Election timeline
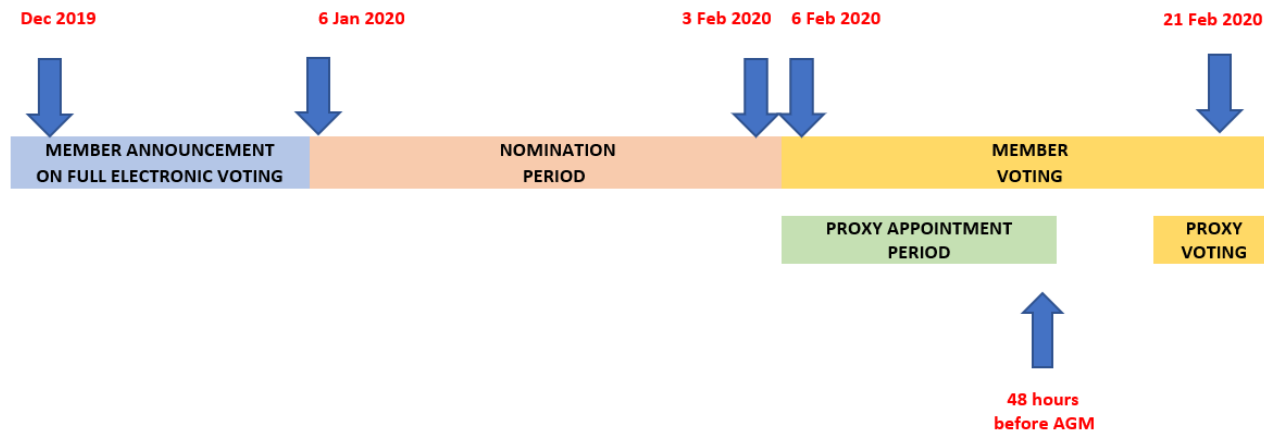
- Nominations open approximately 8 weeks before AGM day
- Nominations close approximately 2 weeks before AGM day
- Member online voting and proxy appointment open approximately 10 working days before AGM
- Proxy appointment closes 48 hours before the start of the AGM
- Proxy online voting opens at the start of the AGM and closes at 14:30 (UTC +11), Friday, 21 February 2020
- Member online voting closes at 14:30 (UTC +11), Friday, 21 February 2020

Voting Entitlement

- APNIC Member Corporate Contacts, Contacts with voting rights and duly-appointed proxies, can vote in APNIC EC election

- The number of votes are determined by the membership tiers

Membership Tier	Votes
Associate	1 vote
Very Small	2 votes
Small	4 votes
Medium	8 votes
Large	16 votes
Very Large	32 votes
Extra Large	64 votes

Online EC Nomination

- Corporate Contacts are required to complete and submit an online nomination form via APNIC 49 website

- Four-week nomination period
  - Started: Monday, 06 January 2020
  - Ended: 17:30 (UTC +10) Monday, 03 February 2020

Member Online Voting via MyAPNIC

- Only Corporate Contacts and Contacts with voting rights can vote online using the **BigPulse voting system**

- Two-week voting period
  - Starts: Thursday, 06 February 2020
  - Ends: 14:30 (UTC +11), Friday, 21 February 2020

Online Proxy Appointment & Voting

- Corporate Contacts can appoint a proxy who can vote on behalf of a Member; if you appoint a proxy, you will lose the right to vote directly for the APNIC EC election

- Proxy appointment via MyAPNIC
  - Starts: Thursday, 06 February 2020
  - Ends: 09:30 (UTC +11), Wednesday, 19 February 2020

- Proxy voting on AGM day **using the BigPulse voting system**
  - Starts: 09:30 (UTC +11), Friday, 21 February 2020
  - Ends: 14:30 (UTC +11), Friday, 21 February 2020

Declaration of Result

- Election results will be announced at 15:30 (UTC +11) today, 21 February 2020

- 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 (example)

Rank	Nominees	Total votes count
1	Candidate B	2,329
2	Candidate D	2,200
3	Candidate C	2,111
4	Candidate E	921
5	Candidate A	205
6	Candidate F	104
7	Candidate H	101
8	Candidate G	89
	Total votes	**8,060**

EC Election

- Julie Hammer as Election Chair (appointed by the EC)

- Andre Gelderblom and Connie Chan as Election Officers (appointed by the EC)

- George Odagi and Tom Do as Election Tellers (appointed by the EC)

- xxx and xxx as Election Scrutineers (appointed by the 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 <u>no later than one hour </u>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 her discretion

QUESTIONS?

Agenda Item 11
Secretariat report

APNIC Secretariat Report

To 31 December 2019

CONFIDENTIAL DRAFT 1.0

Contents

Figures

Tables

Executive Summary

Introduction

This report is provided to the APNIC Executive Council (EC) for the quarterly face-to-face meeting in Melbourne, Australia, on 18 February 2019. **It provides a summary of activities for the full year of 2019**.

This summary provides a list of significant highlights for the year.

Serving Members

- 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).

- 17.49% of the last /8 (103/8) remains (1.1.1).

- Phase 1 of whois IRT accuracy is operational. In 2019, over 1,000 email validations were issued to more than 800 Members, with a 62% confirmation rate (1.1.3).

- APNIC is working with the 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) specification draft submitted at IETF, and a trial RTA service is being planned (1.1.4).

- Custodians of unrouted historical resources were contacted to provide options on the return or transfer of unused addresses (1.1.6).

- Specification of RDAP mirroring standard as IETF draft, to support synchronization of RDAP services (for example, between APNIC and NIRs), and prototype implementation completed (1.1.7).

- APNIC Service metrics continue to show high satisfaction and SLA results (1.2.1).

- Implementation of a new voting system, using the BigPulse platform, was completed. Testing and trials are scheduled ahead of the APNIC EC election at APNIC 49 (1.2.2).

- The APNIC Blog averaged 48,026 views per month in 2019, a 20% increase on 2018's monthly average of 40,064 (1.2.4).

- Service Partners, NEPALREN and PCTA, started referring Members. Malaysia's Open DC/Johor Bahru Internet Exchange joined the trial in Dec 2019 and will begin training in early 2020 (1.2.8).

- Completed an upgrade of network and server infrastructure in the Japan data centre in Tokyo KDDI Otemachi, which allowed for remote deployment of anycast nodes and distributed services. Upgrade of the Brisbane data centre progressed (1.3.1).

- The RDAP service is in trial deployment on Google Cloud. Some product development systems and Information products are also now hosted on cloud infrastructure (1.3.6).

- NRO CSIRT coordination group established (1.3.7).

- Face-to-face training provided to 1,971 trainees in 69 courses, for a total of 5,757 trainee days (1.4.1).

- Twenty-two Community Trainers are now contracted, from 13 economies (1.4.2).

- APNIC Academy supported 870 course completions, 5,060 active users, 1,723 virtual training labs, 1,134 participants in webinars, and the equivalent of 550 trainee days (1.4.4).

Regional Development

- APNIC 48 had 422 attendees, including 52 fellows (2.1.1).

- Dhaka, Bangladesh, was announced as the location of APNIC 50. 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, and prop-128 and 129 were implemented in July (2.2.1).

- Five proposals were considered at the APNIC 48, and two reached consensus: prop-131: *Editorial changes in IPv6 policy* and prop-132: *RPKI ROAs for unallocated and unassigned APNIC address space*. The EC endorsed these proposals in Dec 2019. (2.2.1).

- Two K-root servers deployed in Thimphu (Bhutan) and Yangon (Myanmar); another two K-root server deployments scheduled at VNIX, and a F-root at USP Fiji / Fiji-IX (2.2.2).

- RPKI was a focus at APNIC 48, with a large part of the program dedicated to it (2.2.3).

- APNIC conducted 22 routing security-focused tutorials/workshops (2.2.3).

- APNIC conducted 18 IPv6 deployment workshops and one webinar, and provided IPv6 technical assistance for Bhutan Telecom, Tonga Cable, and World Link (2.2.4).

- APNIC participated at 25 NOG events and sponsored 21 NOG events in 2019, with sponsorship, presentations, and/or program support; APNIC also helped start one NOG and the restart of two NOGs. The APNIC Foundation supported the formation of PNGNOG (see below) (2.2.5).

- Adli Wahid retired from the FIRST Board after five years of service but remains involved (2.2.6).

- The DASH network security product, incorporating Community Honeynet data (2.2.7), underwent user testing at APNIC 48 and was soft launched during 2019 (2.2.8).

- Version 2.1 of Internet Directory was released; deployed new widgets on APNIC's NetOX; conducted user research activities for online community platform (2.2.9).

- APNIC 48 supported 52 Fellows from 20 economies, with a 50:50 gender split (2.2.11).

- 2019 marks APNIC's tenth year of engaging with the APEC TEL community on IPv6 deployment and cybersecurity (2.2.13).

- Sylvia Cadena was reappointed to the IGF MAG, and Rajesh Chharia was appointed as a new Member. APNIC continued support to Internet governance activities in the region, such as APrIGF, national IG initiatives and schools and academies (2.2.14).

- APNIC worked again with GEANT on TRANSITS-I training for R&E CSIRT development. Jamie Gillespie was appointed as Co-Chair for the APAN Security WG at APAN 47 (2.2.15).

- APNIC held a 'NextGen Careers BoF' for the first time at APNIC 48 to help encourage the next generation of Internet professionals. The BoF will be repeated at APRICOT 2020 (2.2.17).

- Jun Murai was appointed as the sixth member of the APNIC Foundation board. APNIC supported the formation of PNGNOG in November 2019, the first national NOG formed in the Pacific Islands (2.3.1).

- The ISIF Asia 2019 Call for Grants received 70 applications from 17 economies. APNIC funded two grants for Internet for Development, and four for Network Operations Research (2.3.2).

Global Cooperation

- APNIC participated in all RIR meetings in 2019, and all NRO Coordination Group activities (3.1.1).

- APNIC participated in the Global Commission on the Stability of Cyberspace (GCSC) and the Marshall Centre Program on Cyber Security Studies (3.2.1).

- APNIC Labs continued contracted work with ICANN on DNS research; and with SSAC and RSSAC (3.3.1).

- Geoff Huston made 25 research presentations at events in 2019 (3.3.1).

- APNIC participated in 231 engagements in 2019 (Appendix A).

Corporate

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

▪ Integrated data architecture for business analysis and reporting, using the Data Vault 2.0 standard, will provide improved metrics for future APNIC reporting (1.3.3).

▪ APNIC filled seven permanent vacancies, and several casual and contract roles (4.1.1).

▪ New Product Management framework implemented, with three 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).

▪ New expense management tool, Expensify, implemented (4.2.5).

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 for 2019.

	Total 1/1/2019	From IANA	Transfers in	Transfers out	Total 31/12/2019	Total allocated	Total free
IPv4 (/24s)	3,471,856	2	7,692	381	3,479,169	3,455,535 99.32%	23,634 0.68%
IPv6 (/32s)	1,067,008	0	n/a	n/a	1,067,008	81,201 7.61%	985,807 92.39%
ASNs	17,045	2,048	1	0	19,094	16,744 87.69%	2,350 12.31%

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	Q4
IPv4 (103/8)	503	417	455	516
IPv4 (recycled)	27	110	0	0
IPv6	365	319	372	416
ASNs	443	347	442	328

Table 2: Internet number resource delegations
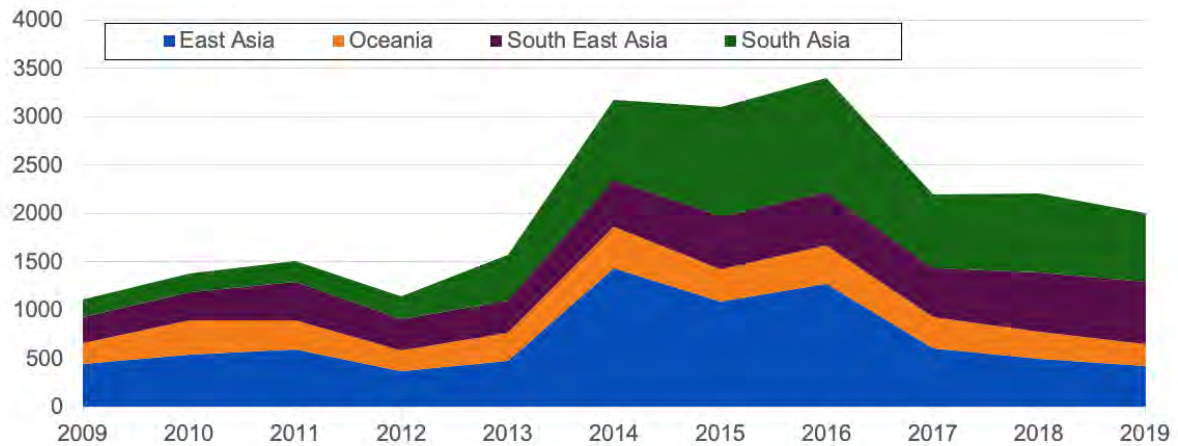
Figure 1: IPv4 delegations
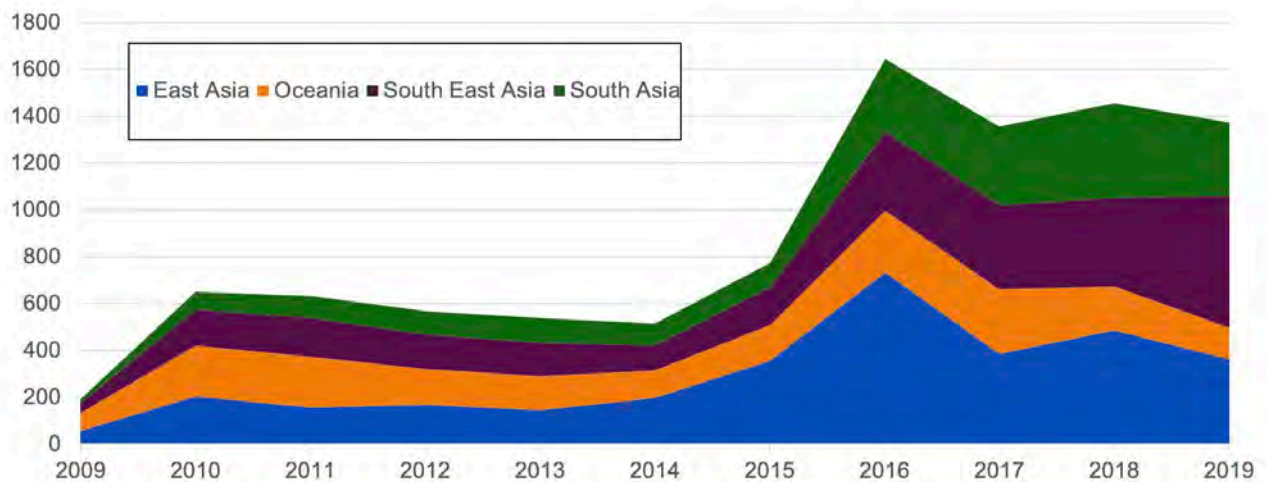
Figure 2: IPv6 delegations
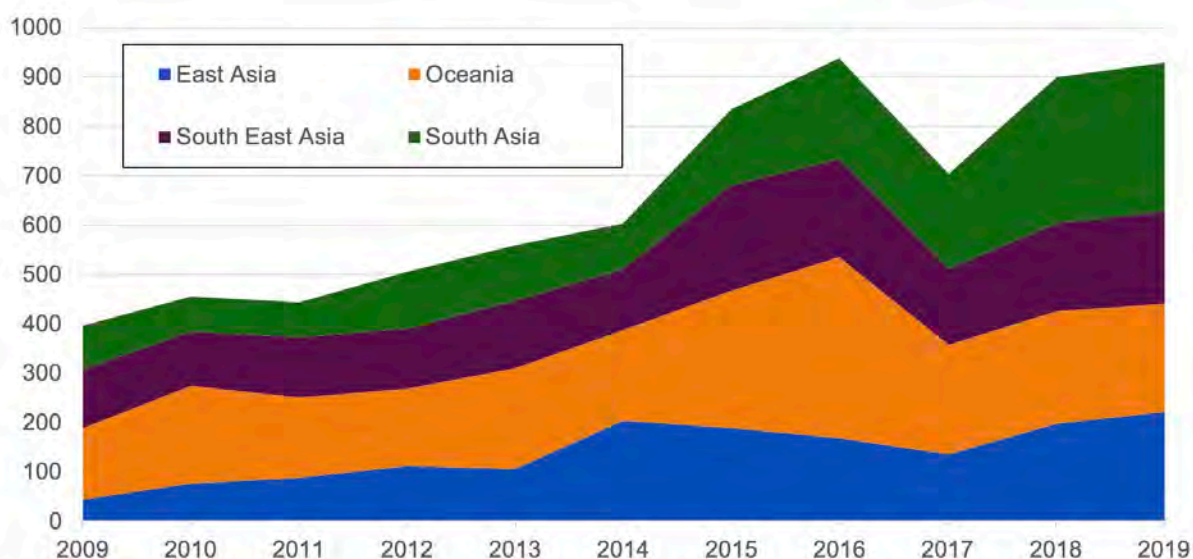
Figure 3: ASN delegations

Member resource holdings

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

Resource type	Q1	Q2	Q3	Q4
IPv4 (103/8)	75.84%	76.64%	77.54%	78.70%
IPv4 (recycled)	22.31%	22.58%	22.02%	21.47%
IPv6	62.16%	62.77%	63.54%	64.08%
ASNs	76.67%	77.13%	77.59%	77.72%

Table 3: Member resource type holdings

Status of last /8 (103/8)

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

Resources	Q1	Q2	Q3	Q4
Delegations from 103/8 (/24s)	1,413	770	786	901
Remaining 103/8	21.24%	20.07%	18.87%	17.49%

Table 4: Status of the last /8

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 removed, and the recycled pool is now empty.

To prepare 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.

Resources	Q1	Q2	Q3	Q4
Delegations from recycled space (/24s)	102	413	0	0
Remaining recycled pool (/24s)	3	0	0	0

Table 5: Status of IPv4 recycled pool

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	#	Q4
M&A total	24	921	45	1,258	31	3,793	421	28,850
Market								
▪ **Intra-RIR**	77	2,025	48	946	75	2,758	361	11,949
▪ **Inter-RIR**	22	1,702	25	3,984	33	1,562	34	825
Market total	99	3,727	73	4,930	108	4,320	395	12,774

Table 6: IPv4 transfers (/24)

RPKI

Usage of RPKI services has increased during 2019, as follows:

RPKI usage	Q1	Q2	Q3	Q4
Members with RPKI certificates	22.82%	23.75%	25.79%	30.9%
Members with ROAs	8.86%	15.00%	18.34%	25.97%
IPv4 under ROAs	4.98%	7.29%	8.17%	10.66%
IPv6 under ROAs	8.36%	8.61%	8.67%	14.2%

Table 7: RPKI usage

1.1.2 Registry operation and maintenance

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

▪ Initial consistency checks in registry records with KRNIC completed.

▪ Checks with JPNIC and TWNIC have started, and data has been shared with JPNIC, TWNIC and CNNIC regarding inconsistencies in registry records.

▪ Discussions have continued with each NIR since APNIC 48. Technical discussions were held with visiting staff from JPNIC and at IETF meetings with staff from CNNIC, IDNIC, JPNIC and TWNIC.

▪ An API specification, supporting automation of resource delegation and sub-account management, was shared with the NIRs, and a testbed was released in June.

▪ Ongoing registry consistency checks identified missing records in the whois stemming from a bug fixed previously. Registry data was restored to ensure consistency between whois, RDAP and delegated statistics. Registry accuracy measures are being developed for internal monitoring.

▪ Deployed new 'stub' records for the whois to reflect transfers out from APNIC region.

▪ Developed 'registry correction' functions to withdraw updates to delegations and reapply them, to safely correct past events. Historical transfers by CNNIC are being corrected.

Projects

1.1.3   Whois IRT accuracy

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

Status:

- Phase I is operational. In 2019, over 1,000 email validations were issued to more than 800 Members, with a 62% confirmation rate.

- Future validation will include 'abuse-c' mirroring of IRT objects in the whois and extend to IRT objects linked to customer assignments, both due to be completed in Q1 2020.

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 the IETF and a draft (draft-michaelson-rpki-rta-01) was proposed for adoption at IETF 105. Work continued on standards specifications, with design work on MyAPNIC and public web features to support RTA provisioning.

- Continued supporting three NIRs that run their own RPKI services and assist with operational stability (CNNIC, TWNIC, and JPNIC). A fourth NIR (IDNIC) is in a pre-deployment testing phase. NIR RPKI data has been integrated into RPKI coverage reporting in the APNIC region.

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

- Distinction between the RPKI platform (certification of resources given to a holder) and RPKI applications (Resource Origin Validation (ROV), RTA etc.) was improved in APNIC materials.

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

- APNIC began working on a model for the implementation of prop-132: *RPKI ROAs for unallocated and unassigned APNIC address space,* for presentation to the community in 2020.

- Interoperation tests of the "krill" RPKI system developed by NLNet Labs were conducted at the IETF and continue in the APNIC RPKI testbed.

1.1.5   Resource Quality Check (RQC, formerly RQA)

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

Status:

- RQC webpage published on the main APNIC website.

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

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:

- Obtained statistics of unrouted IPv4 addresses 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

- Developed specification for listing service of unused IPv4 in MyAPNIC.

- A process for contacting impacted groups was designed, emails drafted and reviewed by the communications team and legal counsel.

- Custodians of unrouted historical resources were contacted to provide options on the return or transfer of unused addresses.

- Member contacts with current resources will be contacted in Q1 2020 with the option to either return their unused IPv4 resources to APNIC or make them available for transfer, using the new listing service for available IPv4 resources.

1.1.7   RDAP development

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

Status:

- APNIC worked with the NIRs on RDAP services for NIR delegations, allowing NIRs to run their own RDAP service or provide data to APNIC's RDAP service. Data from IDNIC, KRNIC, JPNIC and TWNIC was integrated into the service.

- Work also began on a draft for the IETF (draft-harrison-regext-rdap-mirroring-00) on RDAP mirroring to permit NIR-hosted RDAP services to be coordinated effectively with APNIC. Demonstrator Server and Client code has been released, with further development in 2020.

- Work began on a Google Cloud-based APNIC RDAP service, with load testing and service monitoring improvements underway before expected deployment in 2020.

- Work continues with other RIRs on common profile for RIR RDAP data to ensure consistency, and on a conformance testing suite. APNIC continues to promote RDAP consistency between the RIRs and align with the ICANN RDAP usage in the domain name space. The profile is being carried forward into IETF 106 and will be published on the NRO website as an RIR document.

- The IETF REGEXT working group continues to discuss RDAP RFCs. APNIC collaborates with RDAP developers worldwide on standards, focusing on the internationalization and mirroring activity. Discussions at IETF106 on reverse searching models, and the use of JCard JSON data for contacts.

- Development of multilingual features of RDAP client, and RDAP updates to APNIC training materials, were deferred in favour of other development priorities in 2019.

1.2 Customer Service

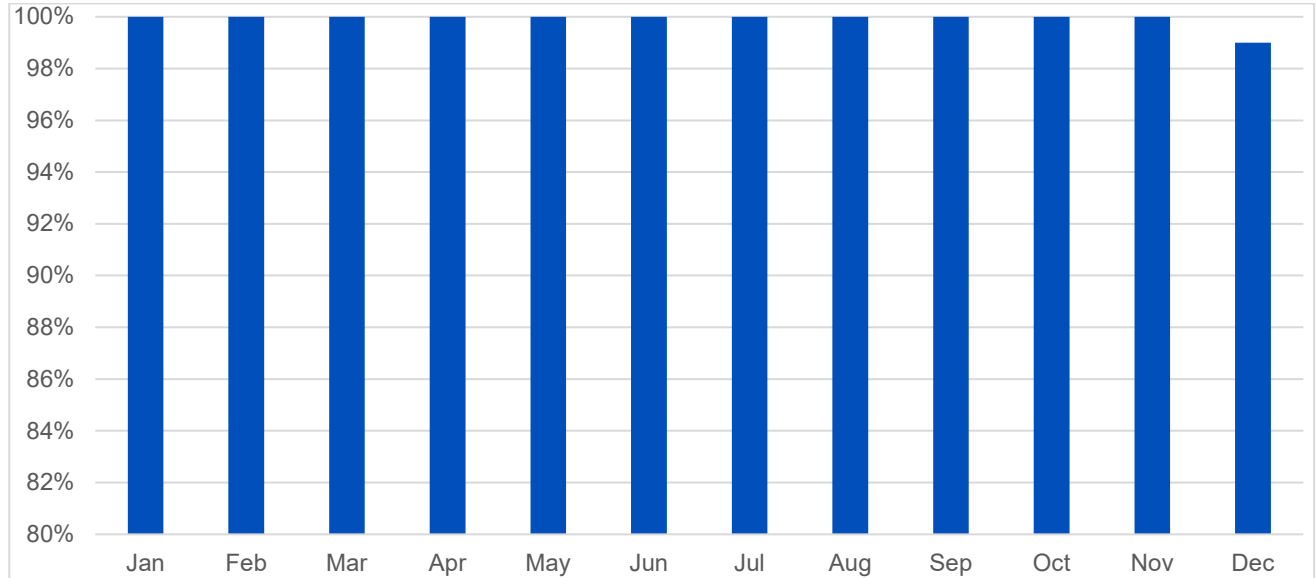### 1.2.1 Member Services/Helpdesk/Billing

SLA for service requests

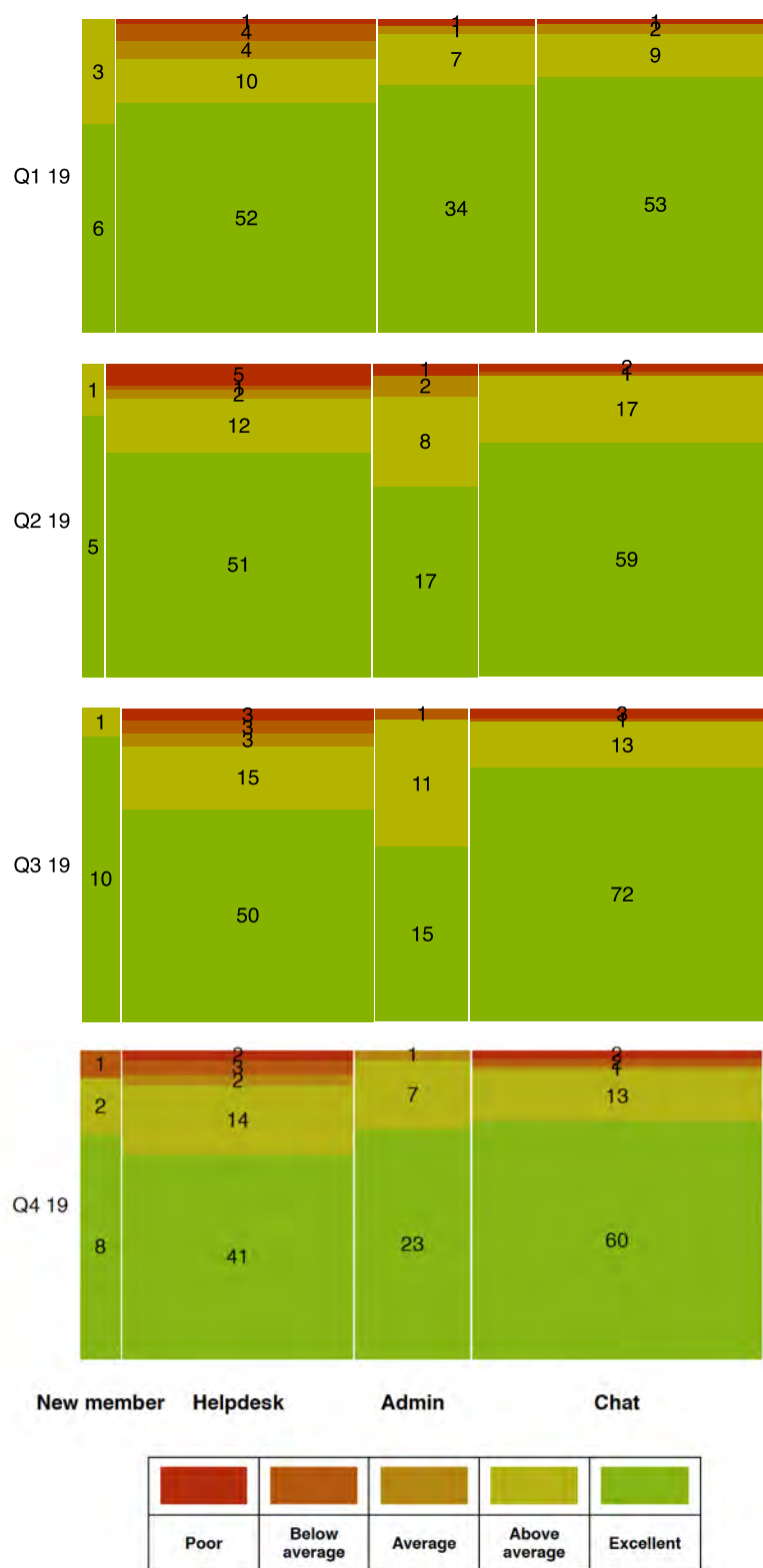

Figure 4: Services SLA

Service satisfaction ratings

Figure 5: Service satisfaction summary

Type	Q1	Q2	Q3	Q4
New Members	210	194	210	227
Closed Members	51	44	75	67
Reactivated Members	6	2	1	1
Total Members	7,315	7,474	7,608	7,769

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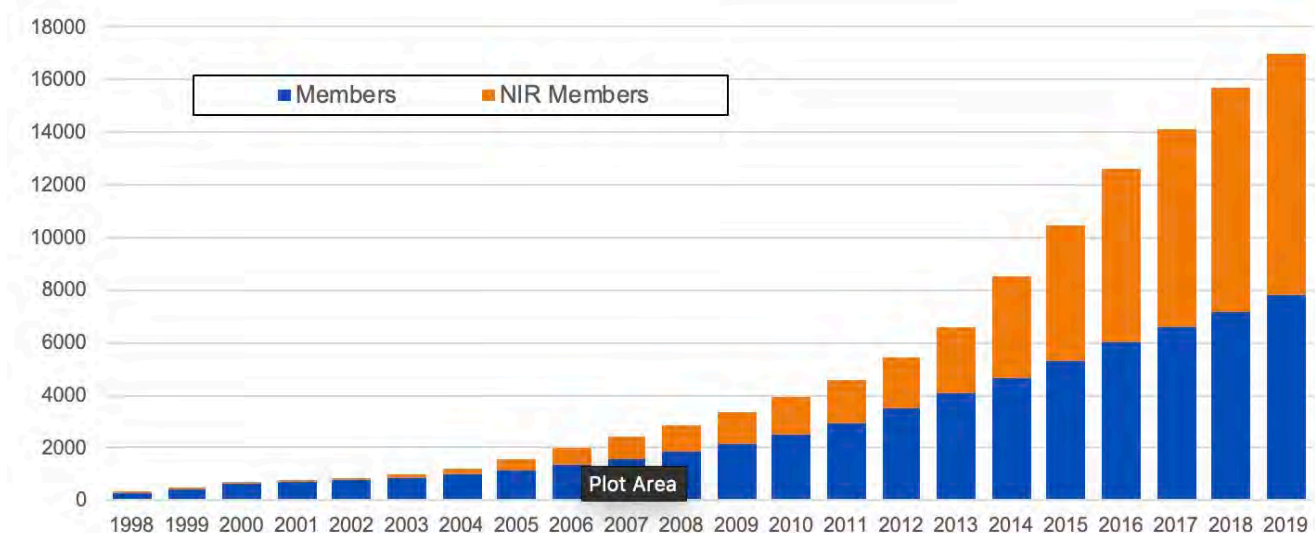
Figure 6: Membership growth
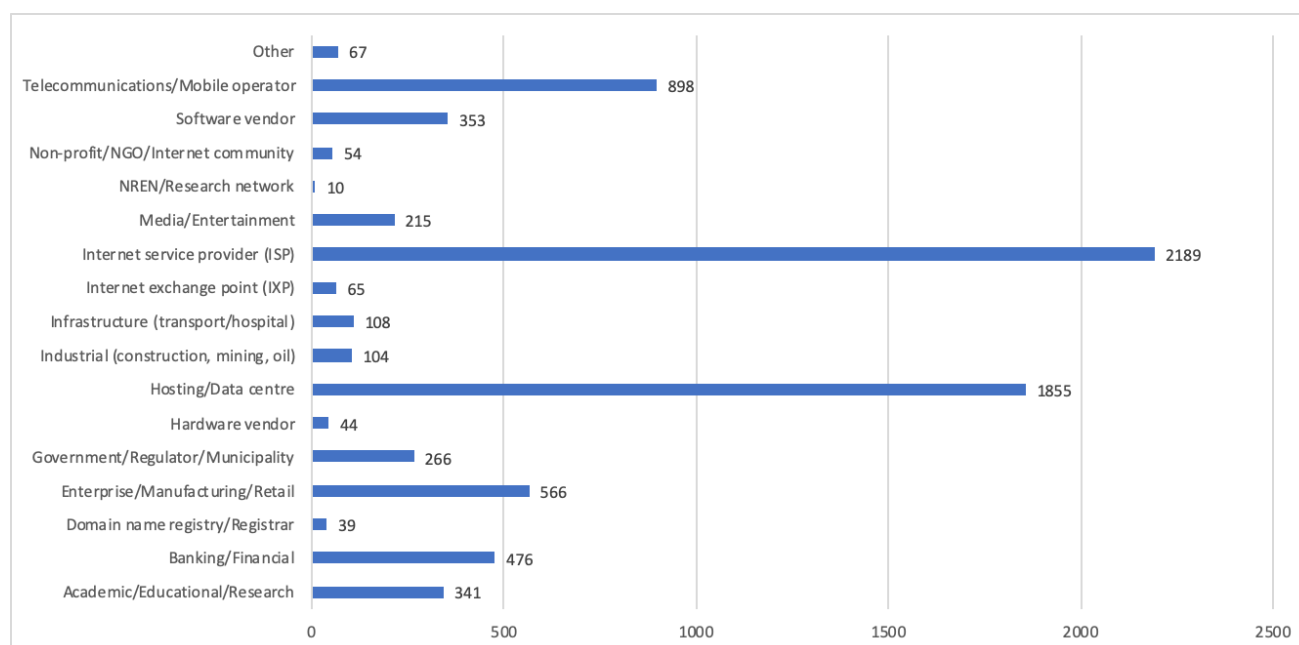
Figure 7: Membership industry type

Fraud cases

Instances of fraudulent applications and requests are summarized as follows.

Type	Q1	Q2	Q3	Q4
Identity theft	0	0	0	2
Fabricated documents	1	0	2	1
Fabricated needs	1	1	0	0
Total	2	1	2	3

Table 9: Fraud cases

1.2.2   MyAPNIC development and maintenance

MyAPNIC development focused on extending Internet number resource management functionality, integrating other APNIC services via single-sign-on (SSO).

Implementation of a new voting system, using the BigPulse platform, was completed. Testing and trials are scheduled ahead of the APNIC EC election at APNIC 49

Work on a public API for resource management is under development with other RIRs. An API specification was shared with the NIRs to support the automation of resource delegation and sub-account management.

1.2.3   Improving online experience

Work continued to extend SSO across all APNIC online services with testing and rollout to MyAPNIC (expected release in January 2020).

A new version of the Membership application form was also developed.

1.2.4   APNIC Blog

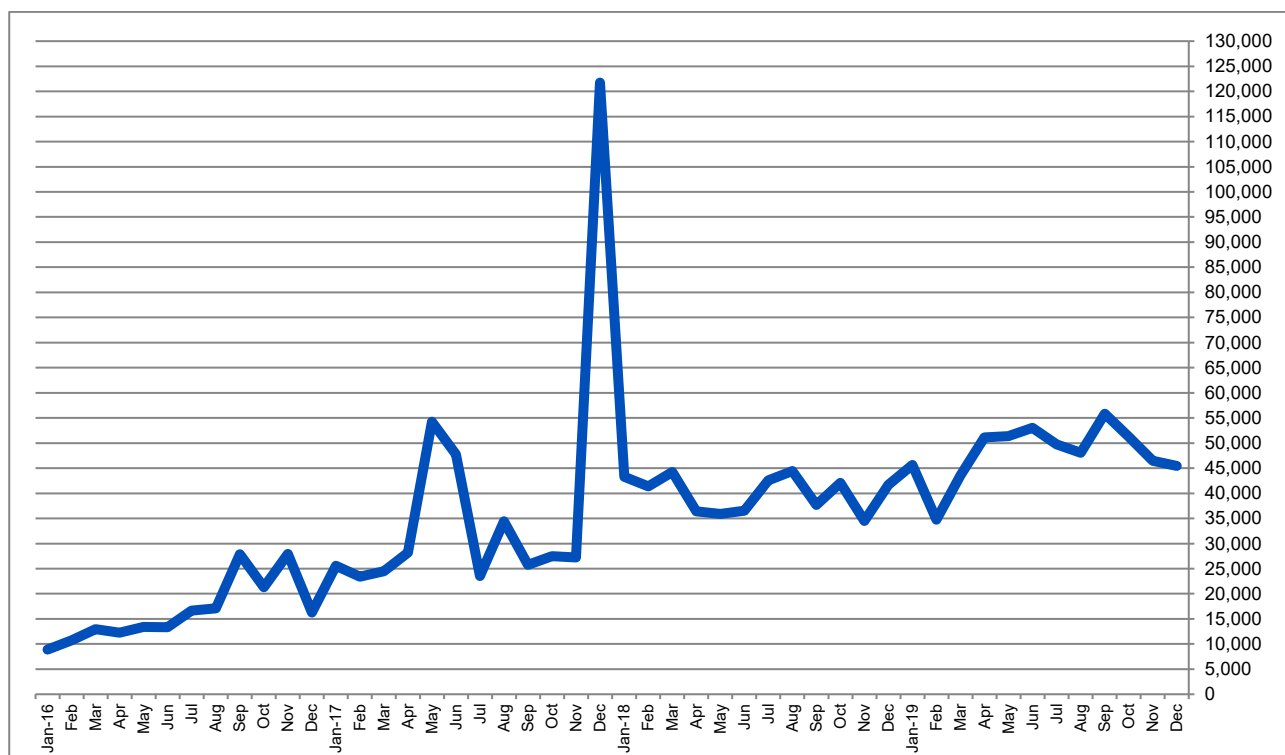|	Q1	Q2	Q3	Q4	YTD	All time
Views	123,976	155,518	153,630	143,190	576,314	1,861,597
Posts	86	102	98	87	373	2,005

Table 10: APNIC Blog activity level

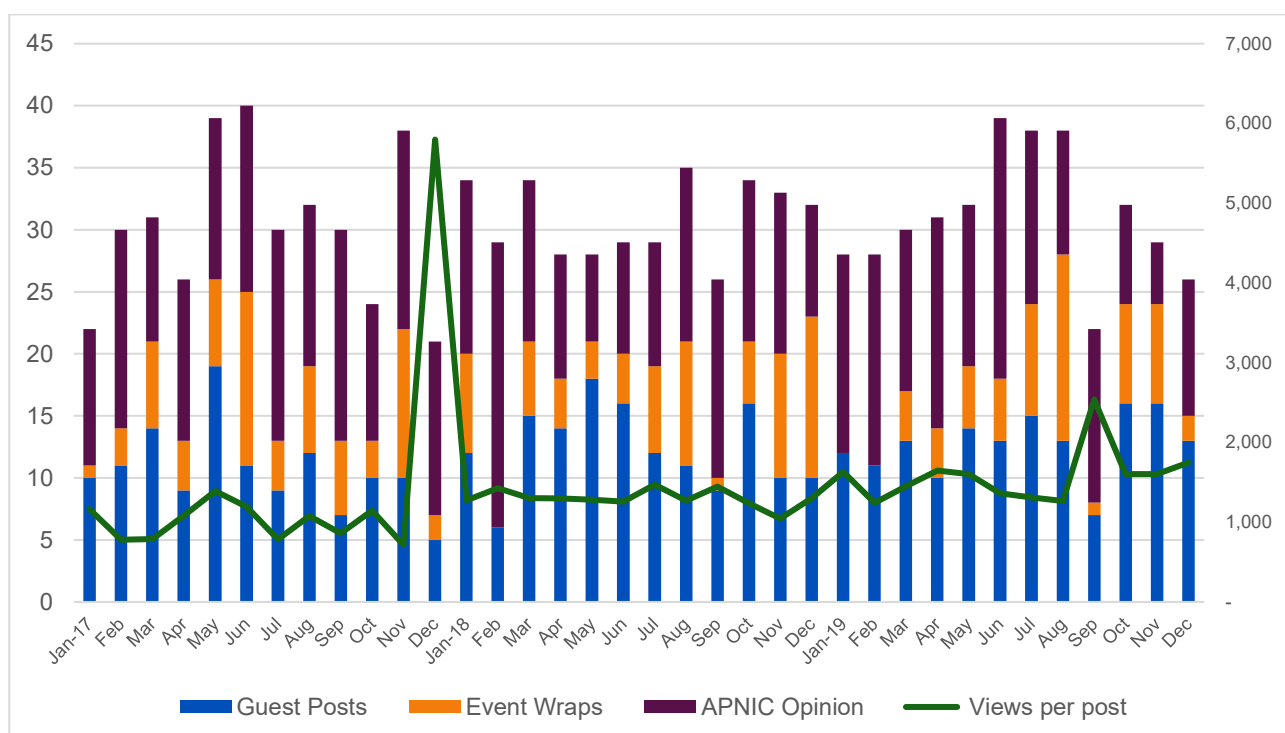**Figure 8: Monthly APNIC Blog views**

Figure 9: Monthly APNIC Blog post types

The APNIC Blog averaged 48,026 views per month in 2019, a 20% increase on 2018's monthly average of 40,064.

There were 153 Guest Posts in 2019, representing 49% of total opinion posts, which is in line with 2018.

Popular posts in 2019 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, his thoughts on DANE in a post on OARC 30, and research on TCP MSS values.

1.2.5   New membership outreach

APNIC provided information about membership at APRICOT 2019, PCTA Convention 2019, ConnecTechAsia 2019, APNIC 48, 19th ITCN Asia and Telecom Conference and at NOG events including bdNOG 10, SGNOG 7, MYNOG 8, and SANOG 34.

The total number of new Members joining APNIC in 2019 was 841 (see 1.2.1).

1.2.6   Quality management

APNIC successfully completed an external full recertification audit (conducted every three years) of its quality management system in August.

1.2.7   APNIC Survey

Planning for the APNIC 2020 survey began in Q4.

Projects

1.2.8   Service Partner Trial

Development of the Service Partner model to improve outreach to APNIC Members according to local needs continued; support for three Service Partners was approved for a two-year trial starting in 2018.

The APNIC Secretariat requested the addition of more trial partners given the interest received from the community.

Status:

- NEPALREN, MyNOG and PCTA have been signed and trained as Service Partners.

- Open DC/Johor Bahru Internet Exchange signed the agreement in December 2019 and will be trained as Service Partner in January 2020.

- NEPALREN referred one Member in 2018 and one Member in 2019.

- PCTA referred six Members in 2019.

- An internal procedure was developed to process the application and renewal of Members referred by the Service Partners.

1.3 Technical Infrastructure Services

1.3.1 Data centres and interconnections

- Completed an upgrade of network and server infrastructure in the Japan data centre in Tokyo KDDI Otemachi. This allowed for remote deployment of anycast nodes and distributed services.

- Upgrading of APNIC's network infrastructure in the Brisbane data centre, with 10G peering and increased traffic volumes between cloud and on-premises infrastructure possible upon completion in 2020.

- Trialled RPKI ROV with invalid route filtering on the APNIC conference network at APNIC 48 and will deploy it on the APNIC production network upon completion of the full risk assessment.

- Evaluated IXP/peering at key Internet hubs in the region for improvement of performance and latency of accessing APNIC services, with Tokyo and Singapore selected for 2020 deployment.

1.3.2 Maintenance, depreciation and licensing

Business IT Team consolidated individual licensing to group licensing for products used by staff, including GitHub, Salesforce and Cloudflare. Seeking 'Non-profit' status with TechSoup to receive better organizational discounts from vendors.

1.3.3 Information Architecture

Establishment of BI (Business Intelligence) system to facilitate analysis of data from registry, financial, and account management sources; with system architecture designed under Data Vault 2.0 practices.

Information Architecture model applied to Identifier Technical Health Indicators (ITHI), measuring the health of Internet number resource technologies, working with the other RIRs through the NRO Engineering Coordination Group (ECG).

1.3.4 Business applications

- Slack selected and implemented as APNIC's primary IM software.

- A new registration system was launched for APNIC 48 for all conference, training and other events. Using Salesforce and the external SSO, it is better integrated with other systems including the APNIC Academy and MyAPNIC.

- Internal SSO using Okta is in place for all primary applications including Office 365, Salesforce, NetSuite, Slack, Zoom, Jira, Expensify, Egencia and others.

- Configuration of a new Human Resources (HR) system (ELMO) is underway, to replace separate HR systems during 2020.

1.3.5 Virtualization and cloud

- The RDAP service is in early test deployment on Google Cloud, as a means to increase responsiveness for users.

- Information Products including the Internet Directory are now hosted on cloud infrastructure.

- Some product development systems have been relocated to Google Cloud, reducing the maintenance burden on technical staff. A pilot project using cloud resources for building software was launched as a result.

- DNS server infrastructure in the Japan data centre was fully virtualized to host anycast RDNS nodes.

- APNIC decommissioned its DNS unicast servers after fully migrating all DNS zones into anycast nodes in the cloud and on-premises.

1.3.6   Software process improvement

The Product teams continued to use the Continuous Integration Continuous Deployment (CICD) platform to improve workflow efficiencies within teams, resulting in faster integration and deployment of new releases. APNIC is also increasing the use of Kubernetes cloud deployment methods to support the CICD platform.

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 updated incident handling procedure and process was finalized and included in the ISMS ISO27001 documents (note, ISO27001 certification is not planned for 2020).

- An NRO security group was established, with incident response communication channels.

- Information Security examples were introduced to the annual Business Continuity Planning and Disaster Recovery exercises.

1.4 Member Training

1.4.1 Training services

	Face-to-Face	APNIC Academy
Courses (by topic)	69 courses/workshops	870 courses / 870 certs
Locations	39 cities / 30 economies	42 economies
Training Days	208	N/A
Student-days/hours	5,757 student days	525 student days
Students	1,971	5,060 active users
Virtual Labs	N/A	1,723 labs launched
YouTube Training Channel	37,729 views / 649 new subscribers	N/A

Table 11: Training delivery

1.4.2 Community Trainers

APNIC has recruited 22 Community Trainers from 13 economies. In 2019, 21 Community Trainers from 12 different economies assisted at 39 training events in 19 economies (Bangladesh, China, Fiji, Indonesia, India, Laos, Malaysia, Maldives, Myanmar, Nauru, Pakistan, Papua New Guinea (PNG), Philippines, Samoa, Sri Lanka, Taiwan, Thailand, Timor Leste, and Vanuatu).

Community Trainers led the training at four of these training events. These were: INNOG 2, APNIC-organized workshops in Malaysia and Pakistan, and an APNIC Foundation workshop in PNG.

1.4.3 Technical Assistance

APNIC provided remote technical assistance for:

- Tonga Cable's IPv6 deployment
- World Link's (Nepal) IPv6 deployment and IPv6 security best practices reviewed after npNOG 5
- MMIX Route Origin Validation (ROV) deployment
- TashiCell's ROV deployment
- PNG IXP (through the APNIC Foundation)
- CNNIC with their rDNS support and whois deployment
- IDNIC with their whois and RPKI deployment
- TWNIC with their RPKI deployment
- VNNIC with their RPKI certification goals (hosted in APNIC's RPKI)

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:

- Supported 870 course completions, 5,060 active users, 1,723 virtual training lab instances and a total of 4,402 hours of training (550 days of training equivalent) during 2019.

- Hosted twelve live webinars on APNIC Academy attracting 1,134 participants from 42 economies (within the Asia Pacific) on topics including Network Security, DDoS, IXP/Routing, IPv6, RPKI and Cybersecurity Awareness.

- Launched multilingual support on the APNIC Academy website, adding the following languages: Chinese (Simplified), Chinese (Traditional), Indonesian, Japanese, Korean, Mongolian, Thai and Vietnamese, including automated workflow language integration with our language partner.

- Launched the IPv6 Fundamentals online course with five new modules (IPv6 Header Format, IPv6 Extension Headers, IPv6 Address Representation, IPv6 Address Types and IPv6 Neighbour Discovery), and started developing a new IPv6 Address Planning course.

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: APRICOT 2019 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 was held in Chiang Mai, Thailand, from 5 to 12 September 2019 at the Le Meridien Chiang Mai.

Conference statistics	
Total number of on-site delegates	422
Economies represented	54
APNIC Member organizations represented	198
Remote Participants – Zoom	178
Remote Participants – YouTube	2,559 views; 22,112 minutes
#apnic48 tweets	986

Table 13: APNIC 48 statistics

▪ 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 main program for APNIC 48 incorporated a security track and several dedicated RPKI sessions. At the Routing Security BoF it was agreed to create a new Routing Security/RPKI SIG (name to be finalized). A draft charter was created and elections for the Chair and Co-Chair roles will be held at APNIC 49.

▪ An RPKI Deployathon was held for the first time at an APNIC conference, at the end of the workshop week.

- Several Internet community groups held meetings as part of APNIC 48, including an APNG Camp Reunion, GEANT Transits Train the Trainer, APIX, AP*, and a RIPE NCC Joint Board Meeting with the APNIC EC.

- APNIC 48 attracted 18 sponsors that contributed AUD 161,820 to the event.

- The APNIC 48 conference network introduced eduroam for Wi-Fi access, RPKI/ROV route filtering as a demonstration of the technology and Zoom (which replaced Adobe Connect) for webcasting.

Future conferences

APNIC began preparations for APNIC conferences in 2020 during 2019:

- [APRICOT 2020](#) will be held in Melbourne, Australia, from 12 to 21 February 2020.

- 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; 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 three 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.

APNIC 48

- Five policy proposals were considered at the APNIC 48 Policy SIG, and two reach consensus in the SIG and AMM:

  - [prop-131](#): Editorial changes in IPv6 policy

  - [prop-132](#): RPKI ROAs for unallocated and unassigned APNIC address space

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

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

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

  - [prop-130:](#) Modification of transfer policies

- The community also reached consensus to change the wording of the Policy SIG Charter as follows:

  'The Policy SIG charter is to develop policies which relate to the management and use of Internet number resources within the Asia Pacific region. These include policies for resource allocation, recovery and transfer, and for resource registration within whois, reverse DNS, RPKI, and related services.'

- Aftab Siddiqui was re-elected to the NRO NC/ASO AC from a field of nine candidates.

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.

- The comment period for prop-131 and prop-132 concluded with no objections and the policy proposals were endorsed for adoption by the EC in December.

2.2.2   Internet exchanges, root servers and measurement

APNIC supported the following initiatives during 2019:

- K-root server deployment at Myanmar (hosted by MMIX) in December.

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

- Sponsorship of three more root servers (agreement signed and waiting for commissioning to be completed): USP Fiji (F-root) connecting to Fiji IX, 2x K-root servers to be hosted at VNIX (Hanoi and Ho Chi Minh).

- Finalizing agreement for future M-root anycast deployment in the Asia Pacific with the WIDE Project and JPRS.

- BKNIX Peering Forum 2019, MMIX Peering Forum 2019, Peering Asia 3.0, and the 30th DNS-OARC Workshop.

- Sponsorship support for PeeringDB, IXP Manager, and IXPDB.

2.2.3   RPKI

APNIC's RPKI initiatives in 2019 included:

- Twenty-two routing security-focused tutorials/workshops.

- Ongoing discussions with HKIX on issues faced with validators behind a proxy.

- Remote support for TashiCell (Bhutan) with RPKI deployment (to validate issues of propagating validation states from border routers running IOS-XE, to iBGP peers running JunOS).

- Remote support for Myanmar IX with ROV deployment on their route server.

- Remote support for MYREN with their ROV deployment.

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

- Support for RPKI deployment at IDNIC.

- Presentation on RPKI training at VNIX-NOG in conjunction with JPNIC.

- Focus on RPKI deployment at APNIC 48 with two dedicated RPKI conference sessions, an RPKI keynote presentation, a one-day RPKI Deployathon, an RPKI BoF and a ROA Signing Social.

- Dropping RPKI invalid routes on the APNIC 48 conference network for the first time.

APNIC and zDNS continue to explore RPKI systems and developments. APNIC hosted a visit from Di Ma (zDNS principal researcher) to discuss validation systems and standards in RPKI.

Improvements designed for MyAPNIC route and ROA management system.

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

2.2.4   IPv6

APNIC supported the following IPv6 initiatives in 2019:

- Eighteen IPv6 deployment workshops, including one webinar.
- Helped Bhutan Telecom and Tonga Cable resolve issues with IPv6 deployment.
- Helped review World Link's IPv6 deployment and security practices.
- IPv6 deployment sessions at APNIC conferences (with TWNIC's ongoing support). SK Telecom, Chunghwa Telecom, Tonga Communications Corporation (TCC), and Softbank presented on their IPv6 deployment activities during APNIC 47 and 48.
- Provided IPv6-only Wi-Fi during APNIC conferences.
- '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.
- Published new IPv6 deployment success stories on TCC, IBM, SK Telecom, and China Cache.
- Published 57 IPv6-tagged blog posts.

The ratio of APNIC Members holding IPv6 resources was 64.07% and total IPv6 capability (as measured by APNIC Labs) in the APNIC region was 29.87% at the end of 2019.

2.2.5   Network Operator Groups (NOGs)

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

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 sp
btNOG 6 spc	KHNOG spc	HKNOG 8.0 sp	PacNOG 25 sp
INNOG 2 spc	MMNOG c	TWNOG 3.0 spc	
SANOG 34 spc	MYNOG 8 spc	JANOG 44 sp	
LKNOG 3 spc	IDNOG 6 spc	mnNOG 1 pc	
npNOG 5 spc	SGNOG 7 sp	TWNOG 4.0 c	
	PhNOG (July) pc		
	VNIX-NOG sp		

Table 14: NOG support

Several new and re-formed NOGs have emerged in 2019:

- Mongolia NOG (mnNOG) 1 was held from 16 to 20 September (one-day conference, five-day workshop). APNIC was acknowledged as the only Founding-Partner for its role in helping set up the NOG and being a part of both the PC and coordination team, in addition to NOG sponsorship.

- KHNOG was held on 4 November (revival efforts lead by APNIC since March 2019). In addition to NOG sponsorship, APNIC had volunteers in both the coordination team and program committee.

- Based on discussions since May 2019, Myanmar NOG dates have been confirmed (13-17 Jan 2020). APNIC is hosting the mailing list and the submission system and is also supporting the program committee.

- Discussions to establish a Lao NOG have been ongoing since June 2019.

- PNGNOG, formed as a result of the APNIC Foundation's PNG training project in November 2019.

2.2.6   Security

APNIC participated at several security-related engagements in 2019:

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

- Collaborated with FIRST.org to organize a one-day security track at APNIC 48.

- 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).

- Supported capacity building and training workshops in public safety and law enforcement, including:

  - Regional Investigators and Prosecutors (TW),

  - International Symposium on Cybercrime (KR),

  - Cyber Safety Pasifika workshops in Fiji (x2) and Samoa,

  - Hong Kong Police Cyber Command

  - Regional Digital Evidence workshop (VN),

  - INTERPOL (SG).

- Sponsorship of the RISE-HK Conference in Hong Kong, the Annual Global Honeynet Conference 2019 in Austria, Threat Con in Nepal, DragonCon 2019 in Hong Kong, MNSEC 2019 in Mongolia, National Cyber Security Week 2019 in Sri Lanka, and 2019 Cyber Jawara in Indonesia.

- Presented case studies from the APNIC community Honeynet Project with project partners at btNOG 6, IDNIC OPM and MNSEC 2019.

- Presented as part of a panel discussion at ConnecTechAsia 2019 in Singapore.

- Presented and joined a panel discussion at the PITA AGM in Fiji.

- Assisted the APNIC Training team with the delivery of Information Security workshops in Vanuatu, PNG (x2), and Myanmar (x2). Also assisted with the delivery of a Network Security workshop and delivered a half-day presentation on incident handling in Macao.

- Delivered live webinars through the APNIC Academy on DDoS Attack Prevention, DNS Security from the Client Perspective, and Cyber Security Awareness.

- Published 93 security-tagged blog posts.

2.2.7   CERT/CSIRTs

APNIC supported the following CERT-related activities in 2019:

- FIRST Security tracks at APRICOT 2019 and APNIC 48, TRANSITS-I workshops at APAN 47 and APAN 48, TRANSITS Train-the-Trainer workshop at APNIC 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 an APNIC Foundation funded project to build cybersecurity capacity in the Pacific.

- Community Honeynet Project expanded with partners in Bhutan, Bangladesh, Malaysia, Samoa, Tonga, Cambodia and Indonesia, providing data for use by the Dashboard for Autonomous System Health (DASH) Network Security Product and for network security training and security engagement activities.

- CSIRT engagements and technical assistance in Tonga and Samoa in addition to the FIRST Regional Symposia in Fiji.

- Delivered a half-day workshop at the APCERT 2019 Conference in Singapore.

- Supported the Bhutan CIRT Web Application Security workshop and MNCERT/CC Annual Security Conference (MNSEC 2019).

- Supported the AusCERT and FIRST conferences as Program Committee members.

Projects

2.2.8   Network Security Product

Development of a Members' 'security dashboard' (DASH) to support network security related to IP address holdings.

Status:

- DASH Minimum Viable Product (MVP) developed and tested during APNIC 47. Implemented user experience and interface improvements based on feedback received.

- Updated authentication to use the APNIC SSO login.

- User interviews conducted during APNIC 48.

- Implemented mechanisms to measure success of the soft launch (Google Analytics, Usabilla and so forth). Soft launched the product and sent email inviting users to help test the release.

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: released v2.1, which includes IPv6 deployment charts as embeddable web components, comparison mode for IPv6 deployment, data downloads, and other improvements and fixes. Ran user validation research during APNIC 48.

- NetOX: deployed CAIDA's AS Relationships widget, Points of Contact (PoC) widget (consuming PoCs from whois and PeeringDB), IRR Explorer widget, transfer history widget (consuming APNIC's transfer log) and abuse contact widget (consuming abuse PoCs through RDAP).

- Online community platform: conducted user research, providing list of features for consideration for MVP. Development will include requirements from other areas within APNIC.

2.2.10   Community sponsorship

In addition to 2019 NOG sponsorships (see 2.2.5), APNIC supported the following community events:

- APrIGF 2019, Russia

- AINTEC 2019, Thailand

- Pacific ICT Days and VanIGF, Vanuatu

- PKSIG, Pakistan

- inSIG, India

- NetThing, Australia

- NetHui, New Zealand

- Internet Week, Japan

- bdSIG 2019/BD-IGF, Bangladesh

APNIC was 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 and attracted 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 was the highest number ever selected, and gender ratio among the fellows was 50:50.

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 the policies being discussed at APNIC 47 and 48 (plus summary of results) translated into eight languages; blog posts pre- and post-SIG meeting; Facebook Live policy webinars pre-APNIC 47 and 48 attracted 851 unique views; invitations to Policy SIGs sent to all Members; mock Policy SIG for newcomers held at APNIC 48; policy engagement presentations delivered at bdNOG 10, SANOG 34, INNOG 2, and APIGA 2019.

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

		Q1	Q2	Q3	Q4	Total
Facebook	Reach	1,087,340	499,871	395,398	292,752	2,275,361
	Likes	28,304	28,646	28,994	29,241	29,241

Twitter	Followers	9,840	10,173	10,433	10,882	10,882
	Engagement	9,704	10,523	15,411	11,058	46,696
YouTube	Views	13,714	6,930	10,674	8,237	39,555
	Minutes	95,413	44,427	72,048	58,266	270,154
Slideshare	Views	41,413	37,248	42,205	34,830	155,696
LinkedIn	Reach	27,347	23,560	33,114	39,009	123,030
	Followers	3,530	3,723	4,032	4,286	4,286

Table 15: Social Media summary

Cooperation SIG

- SIG theme at APNIC 47 was 'Internet Content Blocking and Filtering – Challenges and Way Forward'.

- SIG Chair election was held at APNIC 47, electing Joy Chan for a two-year term.

- SIG theme at APNIC 48 was 'Internet Jurisdiction', with four experts speaking on cross-jurisdictional challenges for network operators.

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.

- The NIR SIG Co-Chair election was held at APNIC 48 on Tuesday, 10 September. Zhen Yu assumed the role of Co-Chair for a new two-year term.

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 participated and presented 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 Telecommunications Standardization Assembly (WTSA).

- APNIC attended the annual Singapore International Cyber Week and attended invite-only sessions for high-level governments in the region.

- APT PRFP-12 was hosted in Tonga and APNIC moderated a panel on 'Connectivity in the Pacific', and met with senior officials from the Pacific Islands.

- 2019 marked APNIC's 10th year anniversary engaging with the APEC TEL community on IPv6 deployment and cybersecurity. At TEL 60, APNIC reported on IPv6 deployment across the APEC region and encouraged attention to IPv6 in their new Strategic Action Plan 2021-2025.

- APNIC participated in the World Internet Conference in Wuzhen, China.

- APNIC spoke on Internet Governance at the Working Group on Big Data under the UN Forum, in Canberra, Australia.

- APNIC attended APrIGF 2019 in Vladivostok, Russia, and participated remotely from APNIC's office. APNIC co-organized four workshops 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 a new member. Both attended MAG meetings and Open Consultations in preparation of the 2019 IGF.

- Paul Wilson was nominated for the IGF MAG Chair position and received support from both private and technical stakeholder groups.

- Pablo Hinojosa and Srinivas Chendi supported APIGA 2019, a 'school of Internet Governance' in Seoul, Korea.

- APNIC provided sponsorship for fellowships and participated at NetHui 2019, New Zealand's national IGF event.

- This year the former auIGF was revived as an event called NetThing, led by a new multistakeholder steering committee. APNIC provided sponsorship and participated at the event.

- At India Internet Week, APNIC supported the Youth IGF and inSIG events. Paul Wilson gave a keynote at inSIG's inaugural session, and Sunny Chendi moderated 2 workshop sessions.

- APNIC participated at the 2019 IGF in Berlin, coordinating and facilitating two sessions in the Safety, Security and Stability track, a workshop on cybernorms, and a panel on data governance and safety. APNIC staff assisted in hosting an NRO booth at the event.

2.2.14 Research & Education Networks

- APNIC conducted three tutorials and presented on RPKI deployment at APAN 47 in South Korea and 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 and presented a session on DNS Security.

- For APAN 48 in Malaysia, 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 Working Group meeting as Co-Chair.

- Che-Hoo Cheng participated at the Joint AI3 & SOI Meeting in Keio University, Japan, upon invitation by Prof Jun Murai, and engaged with participants from Japan and several universities and NRENs from South East and South Asia. APNIC was requested to host the next meeting in May 2020.

- Continued engagement 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.

- Continued supporting RENs and universities to join APNIC as Members to acquire portable IP addresses and ASNs.

Projects

2.2.15 Community Diversity

This project aims to measure the diversity (including gender, age and language) of community participation in APNIC events and activities. Activities completed in 2019 include:

- Diversity measurements and data sources were identified, and changes to APNIC forms implemented as needed for data collection.

- Completed analysis of the APNIC 48 attendee diversity, for use in development of a diversity profile in 2020 when a larger data sample is available.

2.2.16 Encouraging newcomers

This project aims to encourage new participants in the APNIC community; in particular, the next generation of network engineers. Activities completed in 2019 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. Preparations to repeat the BoF at APRICOT 2020 began in October, with session planning with community organizers and promotion to students underway.

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

2.3 APNIC Foundation

2.3.1 Administrative support

- APNIC provided administrative support (financial services, travel, logistical and other) for the Foundation, in addition to working on the implementation of several projects (documented below), mostly under the current underwriting arrangement.

- The Foundation recently started funding administrative support positions in APNIC and project support positions in PNG and Fiji.

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

- In October, Professor Jun Murai of Keio University, Japan, was appointed as the sixth member of the Foundation Board. One board position remains vacant.

- The Foundation's second annual report including audited financial statements was released in September and posted on the Foundation website.

- The Foundation website added Chinese and Japanese language introductions.

2.3.2 ISIF Asia

Grants and awards

- The 2019 Call for Proposals opened on 1 April and closed on 21 June. There were 70 applications received from 17 economies. The Selection Committee decided not to allocate the ISIF Award for 2019, and to redirect the funds to support an additional grant. Funding for the 2019 round of grants was provided by APNIC.

- The Internet for Development category focused on power solutions for Internet infrastructure and awarded a total of USD 40,000 for two grants. The projects selected were:

  - Rural Broadband, AirJaldi (India). Telemetering the tell-tale signs of power issues of wireless Internet relays.

  - Royal Melbourne Institute of Technology, RMIT University (Australia). Network remote powering through quasi-passive optical nodes.

- The Network Operations Research category focused on security and reliability and awarded a total of USD 80,000 for four grants.

  - Curtin University (Australia). Modelling and identifying IP address space fragmentation pressure points.

  - Swiss German University, SGU, Badan Siber & Sandi Negara; BSSN and Indonesia Honeynet Project, IHP. (Indonesia). Honeynet threat sharing platform.

- University of Malaya (Malaysia). Implementation and utilities of RDAP for wider usability among Internet stakeholders.

- University of Auckland (New Zealand). Network coding over satellite links: scheduling redundancy for better goodput.

- Published technical reports from four grant recipients on the ISIF Asia website and promoted the outcomes and results through the APNIC and ISIF Asia blogs.

  - Yayasan Noken Baliem Mandiri (Indonesia). Community LTE in Papua.

  - ZDNS Labs (China). RPKI monitor and visualizer for detecting and alerting for RPKI errors.

  - Victoria University of Wellington (New Zealand). Scalable traffic classification in Internet of Things (IoT) for network anomaly detection.

  - The University of Newcastle (Australia). Software Defined Networks based security architecture for IoT infrastructures.

2.3.3   Foundation activities

The following Foundation projects and activities were 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 project completed nine engagements for the year including three in Lae. This included six workshops, one technical assistance for the local IXP, and two community consultations. The project also planned to sponsor PNG participants to APRICOT 2020.

- The PNG training project also supported the formation of PNGNOG in November 2019, the first national NOG formed in the Pacific Islands.

- 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 project report was successfully submitted to the Australian Department of Foreign Affairs and Trade (DFAT).

- The final workshop for the Pacific Law Enforcement Agencies (LEA) project was completed. The final project report was prepared for submission to DFAT.

- Final preparations were completed to provide equipment support for PNGCERT.

- A new AUD 500,000 Pacific training project — funded by DFAT — was a launched in October with community consultations in the Solomon Islands, Tonga, Vanuatu and Fiji. The consultations will play a key role in the development in 2020 of training plans for each economy.

- The APNIC Security and Training teams completed two technical training workshops in Myanmar, fully sponsored by Japan's KDDI Foundation and initiated by the APNIC Foundation.

- The APNIC Foundation reached agreement with JPNIC to sponsor selected candidates from IXPs in developing economies in the Asia Pacific to attend RPKI sessions at APRICOT 2020.

3   Global Cooperation

3.1   Global Technical Community

3.1.1   RIR collaboration

The following RIR collaborations occurred in 2019:

- Participation at LACNIC 31, 32; ARIN 43, 44; RIPE 78, 79 and AFRINIC 30, 31.

- In May, the NRO EC had a face-to-face meeting after RIPE 78, 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, and Mathias Ferre from LACNIC, to collaborate on business intelligence analysis and database management.

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

- At IETF 105 in 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 — Public Safety Coordination Group (PSCG). They met for the first time at ICANN 66.

- At LACNIC 32, the NRO Resource Services Coordination Group (RSCG) met to discuss inter-RIR transfers, the ITHI project measures and their 2020 workplan. The HR RIR executives also met to share information.

- Sofia Silva Berenguer took part in a staff exchange at RIPE, working closely on RIPEstat and APNIC's NetOX.

- APNIC staff visited AFRINIC in Mauritius to discuss business continuity, risk assessment, talent management, and provide registry support to the AFRINIC services team.

- APNIC attended the NRO CFO Meeting at LACNIC's office.

- APNIC helped arrange and host the NRO booth at IGF 2019 in Berlin.

3.1.2   I* collaboration

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

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

- ICANN 66 was held in Montreal, Canada. A revised ASO MoU was also signed at this meeting, as part of the ASO Review process. There was an NRO retreat meeting and an I* meeting held after this event.

Geoff Huston continued as a member of ICANN's Security and Stability Advisory Committee (SSAC) and Root Server System Advisory Committee (RRSAC) in 2019.

3.2   Inter-governmental outreach

3.2.1   Inter-governmental engagement

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

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

- Klée Aiken participated at the GFCE Annual Meeting in Addis Ababa, Ethiopia, as a member of their advisory board. Klée facilitated the Task Force on Cyber Incident Management and participated in the Global Commission on the Stability of Cyberspace meeting.

- Pablo Hinojosa gave two presentations on Internet operations and Internet governance at the Marshall Centre Program on Cyber Security Studies, which was attended by high-level military and national intelligence officials.

3.3   Global Research

3.3.1   Global research and measurements

Research activities conducted by Geoff Huston and Joao Damas in 2019 include:

- DNS related research with ICANN on ongoing measurements of DNS resolution services. This includes measurements of resolver centrality, resolution performance and DNS efficiency.

- Investigation of DNSSEC deployment on the extent of use of DNSSEC validation across the Internet.

- Measurement of IPv6 adoption on the extent IPv6 use across the Internet.

- Development of BGP update analyser, which aims to provide heuristics to guide the automated detection of anomalous BGP updates.

Other measurement and experimentation undertaken include measurements of TCP MSS values, use of NSEC caching, DNS query duplication, DNS query minimization, a profile of unsolicited traffic in IPv4 and Path Prepending in BGP.

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, MMNOG)

- 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, AusNOG 2019)

- 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, IETF 105)

- 30 years of BGP (IAB Design Expectations vs Deployment Workshop, RIPE 79)

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

- Detecting BGP Anomalies (APNIC 48, ESNOG 24)

- IPv6 Reliability and Performance Measurements (APNIC 48)

- The Resolvers We Use (ESNOG 24, RIPE 79)

- NSEC Caching Revisited (DNS OARC 31)

- The Future Internet (CERNET Conference)

- No! (IEPG, IETF 106)

- Abusing the DNS (KISMET Workshop, CAIDA)

- IP Addresses (KISMET Workshop, CAIDA)

4   Corporate

4.1   Human Resource Management

4.1.1   Recruitment

APNIC filled seven permanent vacancies created either by staff attrition or new required roles in line with the EC-approved Secretariat staffing level of 82 FTEs. These roles included:

- Senior Software Engineer
- UX Designers
- Web Designer / Developer
- Accounts Officer
- Legal Counsel
- Systems Engineer

In addition, a number of casual and contract roles were filled, including:

- Full Stack Web Developer
- IT Helpdesk Support
- Web Designer/Developer
- Office Co-ordinator
- Senior HR and Payroll Co-ordinator

Support to the APNIC Foundation included the appointment of contractors to undertake community engagement and training activities

A number of staff exchanges with other RIRs were both sent and received, and six internships were provided to university students to gain experience in the Secretariat's Member Services and Finance teams. Two student placements were also hosted to facilitate specific projects for Master's degree requirements.

4.1.2   Product Management

The implementation of Product Management methodology saw the formation of dedicated product teams responsible for specific APNIC products and services. This included:

- The creation of three cross-functional product teams, dedicated to Registry, Membership and Information Services, focused on delivering value to our Members and broader community.
- The creation of three support teams for web development, platform and DevOps support.
- The adoption of Agile Scrum as the standard methodology.
- Ongoing coaching on Product Management and Agile development principles

4.1.3   Staff retention and development

Ongoing staff professional development was provided, and included the following sample of topics:

- Japanese Language
- HR Business Partnership
- Leadership Training
- NetSuite ERP Training
- Integrated Governance Risk Management

- IPv6
- Leadership Training
- Okta Administration
- SharePoint Administration
- Customer Service

- Communication Skills
- Certified Professional Accounting
- Security Analysis
- Intrusion Detection
- Salesforce Administration

- Excel Skills
- Ontological Coaching
- HR Analytics

- CPA Young Professionals
- Product coaching
- Information Security

- Penetration Testing
- Women and Leadership

An all-staff conference, themed 'Reconnect', was held in August 2019 with a focus on strategic planning for the 2020-2023 period and reconnecting with APNIC's mission, vision and values.

Four staff are undertaking formal study with APNIC support, as follows:

- Master of Cyber Security
- Master of IT (2)
- Bachelor of Law

All staff and EC members completed compulsory training covering:

- Bullying Prevention
- Sexual Harassment Prevention
- Equal Opportunity & Anti-Discrimination
- Fraud & Corruption Prevention

Projects

4.1.4   Onboarding development

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

This included:

- Concise policy handbooks for non-permanent appointments of different types.
- Online training to provide both compliance and professional development training.
- The configuration of an improved online onboarding process.

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 five-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 was updated and implemented across all systems, procedures, and policies.

Number of	Dec-19	Avg/Mnth	YTD	2018	2017	2016	2015
Phone Calls (Outward)	131	215	2,576	2,556	3,253	3,500	
RTs Received (Total)	1,815	2,062	24,739	26,915	25,444	21,396	23275
E-Bill	1,188	1,462	17,544	19,406	16,379	15,331	19603
Finance	255	233	2,801	1,894	1,385	1,328	1332
Accounts Payable	109	125	1,499	1,153	1,241	1,261	841
Inward Payment	263	241	2,895	2,516	2,319	2,061	3
Accounts Receivable							
APNIC Member Count	72	51	7,776	7,162	6,547	5,994	5,268
New Members	87	70	838	817	844	1,030	940
New Non-members	0	1	14	16	11	18	24
Receipts Processed	857	798	9,579	8,786	8,061	7,514	6,645
Invoices issued	792	785	9,423	8,897	8,264	7,537	7,271
Credit notes issued	22	29	348	401	550	529	575
Accounts Closed	21	23	270	235	332	322	358
Closure Notice sent	95	91	1,096	948	994	945	900
Reactivation Members	1	2	24	23	31	45	51
Reactivation fee waived	0	0	2	2	2	8	6
Refund Members	6	5	59	93	73	68	46
Accounts Payable							
Asset Created	7	10	119	164	260	189	156
Asset Disposal	108	21	254	84	76	127	147
PO created by Finance	5	38	453	544	488	213	209
PO Billed	297	226	2,709	2,005	1,957	1,947	1,980
Supplier EFT Payment	75	82	978	880	932	891	946
Reimburse Payment	66	42	509	476	429	386	388
Reimburse Transaction	247	236	2,834	2,080	2,088	1,912	2,322
Journals processed	82	82	983	1,080	833	888	1,005
Cash Advance Request	0	2	19	28	21	18	28
Vendor Request	3	13	156	78	97	141	431
Foundation Support	204	154	1,842	3,217	2,454	1,046	829
NRO Support	40	20	241	289	756	537	609

Table 16: 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 4.3.3 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 DEC 2019	YTD DEC 2018	Change %
Travel Booked				
	Domestic	69	48	44%
	International	340	345	-1%
		409	393	4%
*Booked through APNIC's Travel Management Company, excludes external bookings,				
*Includes travel team internal bookings for APRICOT/APNIC49				

Figure 10: Travel statistics

Projects

4.2.4   Enhancing Member payment facilities

APNIC is providing additional means for fee payment, in response to member requests from several economies.

Status:

- Online partial payment was implemented in Dec 2019, allowing members in Bangladesh, China and Pakistan to split the invoice into small amounts (minimum AUD 100).

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

4.2.5   New expense management tool (new project)

- Expensify was implemented on 1 September 2019, and integrated with the ERP system, allowingl expense claims to be processed through the new system.

- APNIC also implemented a streamlined approach to travel allowances through Expensify.

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 completed a routine review of practices and procedures for personal data collection in Q4, ensuring ongoing compliance with privacy principles.

4.3.2   Workplace health and safety

APNIC has a well-established Workplace Health and Safety (WHS) Management system in place that is overseen by the EC and audited by a certified third party.

Risks are formally evaluated each quarter, and any incidents or injuries are managed in accordance with Queensland WHS legislation. These include journey claims for accidents occurring during travel to or from work and trips and falls occurring at work or at work-related events.

APNIC provides International SOS health and security services for assistance during travel for anyone travelling to provide APNIC services in the region.

4.3.3   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.

- The wall entry to the APNIC carpark was partly demolished to improve visibility for exiting vehicles and pedestrians.

- New workstation installation was completed to accommodate casual Senior HR and Payroll Co-ordinator within HR departmental area.

Appendix A

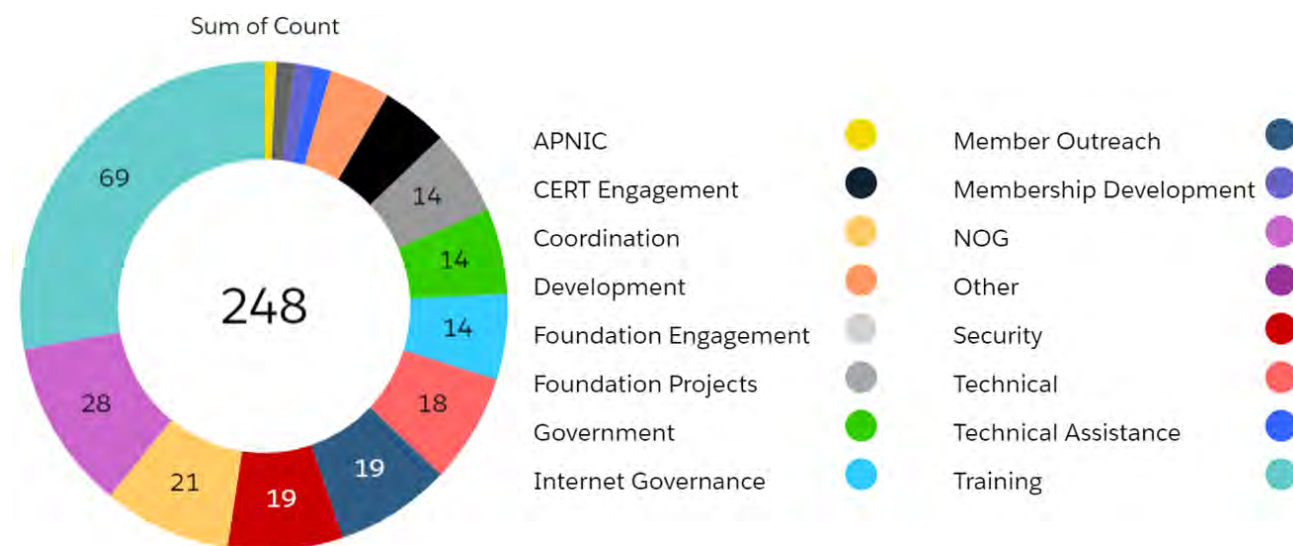## A-1   Community engagement summary (includes Foundation engagements)
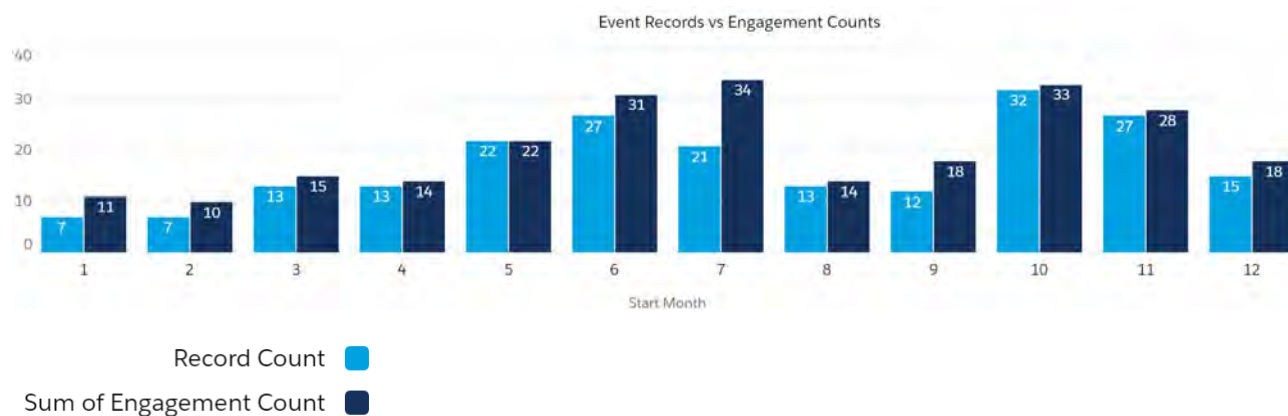
Sum of Count

Figure 11: Engagement summary by type

Figure 12: Engagement summary by month

A-2   Events attended in 2019

Month	Event: Event Name	Economy
1	1st F2F 2019 Open Consultation and MAG meeting (IGF)	CH
	AITI SMART Future Forum	BN
	CAS 25th Anniversary/Member visits	CN
	FIRST Board Meeting	EE
	NZNOG 2019	NZ
	SANOG 33	BT
2	APAN 47	KR
	APRICOT 2019/ APNIC 47	KR
	Australasian Aid Conference	AU
	Cyber Safety Pasifika - Tier 2 Course	FJ
	Member Visit	BN
	NANOG 75	US
	RPKI Operational Roundtable 2019 - Cloudflare HQ	US
3	Digital ASEAN Workshop	SG
	HKNOG 7.0	HK
	HKPF Cyber Command Course	HK
	ICANN 64	JP
	IETF 104	CZ
	LaoCERT Engagement	LA
	Network Security and Packet Analysis workshop	KH
	Network Security workshop	PH
	Passive and Active Measurement (PAM) 2019 Conference	CL
	PhNOG 2019	PH
	Registration Services Coordination Group (RSCG) f2f Meeting	KR
4	ARIN 43	BB
	bdNOG10	BD
	Cyber Security Regional Forum	AU
	FIRST Board Meeting - Peru	PE
	GFCE AB & Working Group Meetings	NL
	ICANN APAC-TWNIC Engagement Forum	TW
	IPv4/IPv6 BGP Routing	MY
	PACLEA - Cyber Safety Pasifika Tier 2 Course	FJ
	PCTA Convention 2019	PH

		PITA 23rd AGM & Annual Conference	FJ
		PNGTRAINING - Community Consultation and Project Evaluation	PG
		US DoJ (OPDAT) for Prosecutors and Judges LEA Training	MY
		WSIS Forum 2019 and 2nd F2F MAG Meeting	CH
5		30th DNS-OARC Workshop	TH
		AusCERT 2019 Conference	AU
		BKNIX Peering Forum 2019	TH
		ICANN DNS Symposium	TH
		International Symposium on Cybercrime Response (ISCR) 2019	KR
		Internet Governance Stakeholder Roundtable	AU
		IPv6 Deployment workshop - TWNIC	TW
		KISA Member Visit	KR
		LACNIC 31	DO
		LEA Training with Prosecutors	TW
		MMIX Peering Forum	MM
		PACCERT – Regional Workshop 3	WS
		Pacific ICT Days / VanIGF	VU
		PNGTRAINING - Lae event planning	PG
		RIPE 78	IS
		RISE-HK	HK
		ThaiNOG 2	TH
6		32nd TWNIC IP OPM	TW
		3rd MAG IGF meeting	DE
		AIS'19 (with AFRINIC 30)	UG
		APT-WTSA20-1 / ASTAP-31	JP
		ASEAN Regional Cyber Norms Workshop	MY
		btNOG 6	BT
		CNNIC OPM (China Internet Resource Conference) and IPv6 Training	CN
		ConnecTechAsia 2019	SG
		FIRST Annual Conference	GB
		Henry Sutton Oration 2019	AU
		ICANN 65	MA
		IDNIC OPM/APJII National Meeting 2019	ID
		Information Security-Intermediate workshop	VU
		Internet & Jurisdiction Policy Network 3rd Global Conference	DE
		Internet Architecture Board (IAB) DEDR Workshop	FI

	INTERPOL Pre-operational Meeting on Cryptojacking	SG
	IPv6 Deployment workshop	IN
		CN
	LAO ICT EXPO 2019	LA
	Network Monitoring and Packet Analysis workshop	AU
	Network Security workshop	LA
	PacNOG 24	WS
	RightsCon Tunis	TN
	The Future of Digital Government	KR
	TWNOG 3.0	TW
7	6th IRINN OPM 2019	IN
	APAN 48	MY
	APISC Annual CERT Workshop (KISA)	KR
	APNIC 50 site visits	BD
	APrIGF 2019	RU
	Development Meetings with SGNOG & Higher Ed People	SG
	Global Symposium for Regulators (GSR) 2019	VU
	IDNOG 6	ID
	IETF 105	CA
	INNOG 2	IN
	IPv4/IPv6 BGP Routing workshop	MV
	IPv6 Deployment workshop	PK
	ISP Essentials workshop	PH
	JANOG 44	JP
	Member visits - BN	BN
	Member Visits - TL	TL
	MYNOG 8	MY
	PhNOG 2019 (July)	PH
	PNGTRAINING – Information Security	PG
	SANOG 34	IN
	SGNOG 7	SG
8	3rd AP Information Superhighway (AP-IS) Steering Committee 2019	TH
	APIGA 2019	KR
	BtCIRT Web Application Security Workshop	BT
	IPv6 Deployment - APT	MM
	IPv6 Deployment workshop	LA

	Networking Essentials workshop	NR
	Network Security and Advanced Routing workshop	TL
	US DoJ LEA Training for Prosecutors (VN)	VN
	VNIX-NOG 2019	VN
9	19th ITCN Asia and Telecom Conference and Expo	PK
	Annual SSAC (Security & Stabillity Advisory Committe) Workshop	US
	APCERT Annual Conference & AGM	SG
	APNIC 48	TH
	AusNOG 2019	AU
	HKNOG 8.0	HK
	IPv6 Deployment tutorial (webinar)	AF
	Member Visits - MV	MV
	Member visit - Telkomsel	ID
	MNNOG 1	MN
	Network Security workshop	MO
10	7th EUROPOL-INTERPOL Cybercrime Conference	NL
	ACM Internet Measurement Conference 2019	NL
	APEC TEL 60	KR
	APT PRFP-12	TO
	ARIN 44	US
	CERT Samoa Planning / Discussion	WS
	CERT Tonga Workshop and Engagement	TO
	DNS-OARC 31	US
	ESNOG 2019	ES
	GFCE Annual Meeting 2019	ET
	GNTC Global Network Technology Conference 2019	CN
	Information Security workshop	MM
	Introduction to SDN workshop	LK
	IPv6 Deployment workshop	MY
		BN
	IXP and Routing tutorial (webinar)	AF
	LACNIC 32	PA
	LKNOG 3	LK
	Member Visits - IN	IN
	MNSEC 2019	MN
	NANOG 77	US

	NetHui 2019	NZ
	NetThing 2019	AU
	Network Monitoring and Packet Analysis	SB
	RIPE 79	NL
	SICW 2019	SG
	The 50th AI3 & SOI Asia Joint Meeting (2019 FALL)	JP
	World Internet Conference (Wuzhen Summit)	CN
11	APCEN Workshop	VN
	bdIGF 2019	BD
	BICSI Japan 2019 Conference	JP
	CERNET (China Education and Research Network) 26th Annual Conference 2019	CN
	Cyber Safety Pasifika - Tier 2	WS
	FIRST Data Breach Workshop	FJ
	ICANN 66	CA
	IDNIC AMM 2019	ID
	IETF 106	SG
	IGF 2019	DE
	India Internet Week	IN
	inSIG 2019	IN
	IPv6 Deployment, ICT in DRRM and Smart Cities Conference	VN
	IPv6 Deployment workshop	CN
	Japan Internet Week 2019	JP
	JBIX Peering Forum 2019	MY
	KHNOG 2019	KH
	Member Visit - Mumbai	IN
	NRO CFO Meeting	UY
	NZITF 2019 Conference	NZ
	Peering Asia 3.0	MY
	Securing Internet Routing Tutorial	AU
	Working Group on Big Data, UN Forum	AU
12	33rd TWNIC IP OPM	TW
	AFRINIC 31	AO
	Buffer Workshop	US
	DragonCon 2019	HK
	Expert Working Group Meeting on IXP for the Pacific	FJ
	Information Security workshop	MM

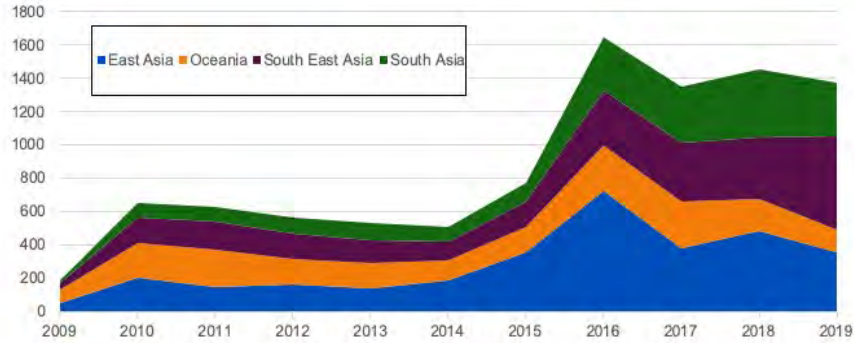|	JICA ASEAN CSIRT Workshop	ID
	KISMET (Internet Topology Structure) workshop	US
	Marshall Center Program on Cyber Security Studies (PCSS)	DE
	npNOG 5	NP
	PacNOG 25	FJ
	Routing Security workshop	TW
	TWNOG 4.0	TW

APNIC Secretariat Report

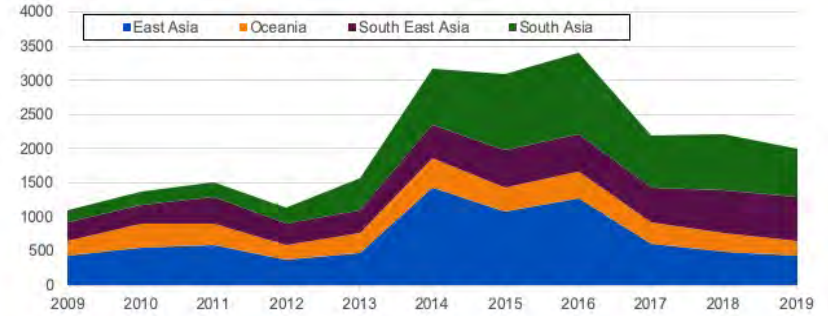1 Jan to 31 Dec 2019

APNIC EC Meeting, Melbourne
18 February 2020
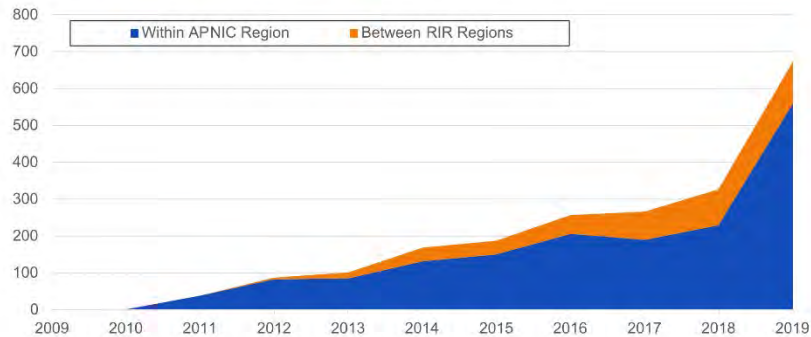
Membership
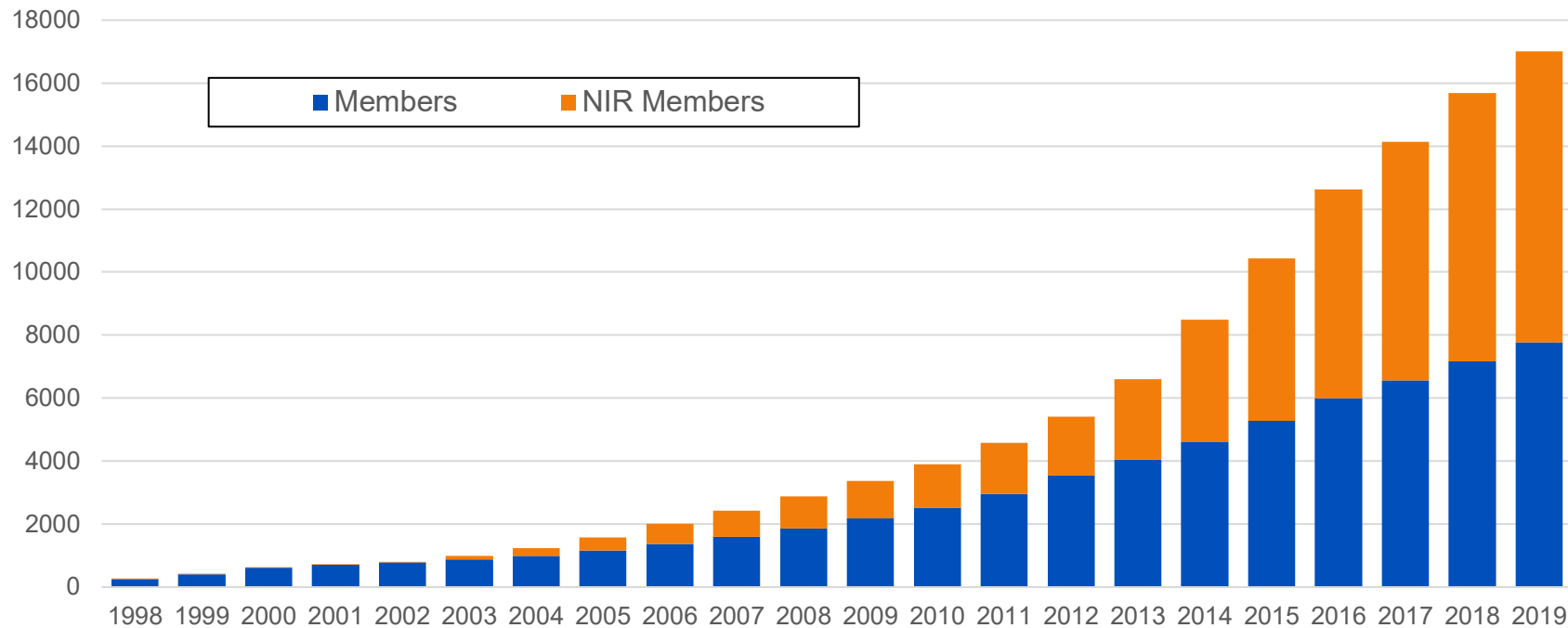
As at 31 Dec

APNIC

IPv6 delegations

IPv4 delegations

IPv4 Transfers

ASN delegations
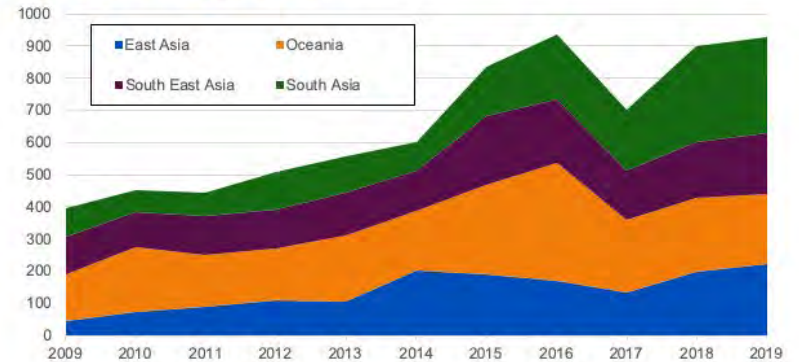
Last /8 address pool

APNIC

RIR IPv4 Address Run-Down Model
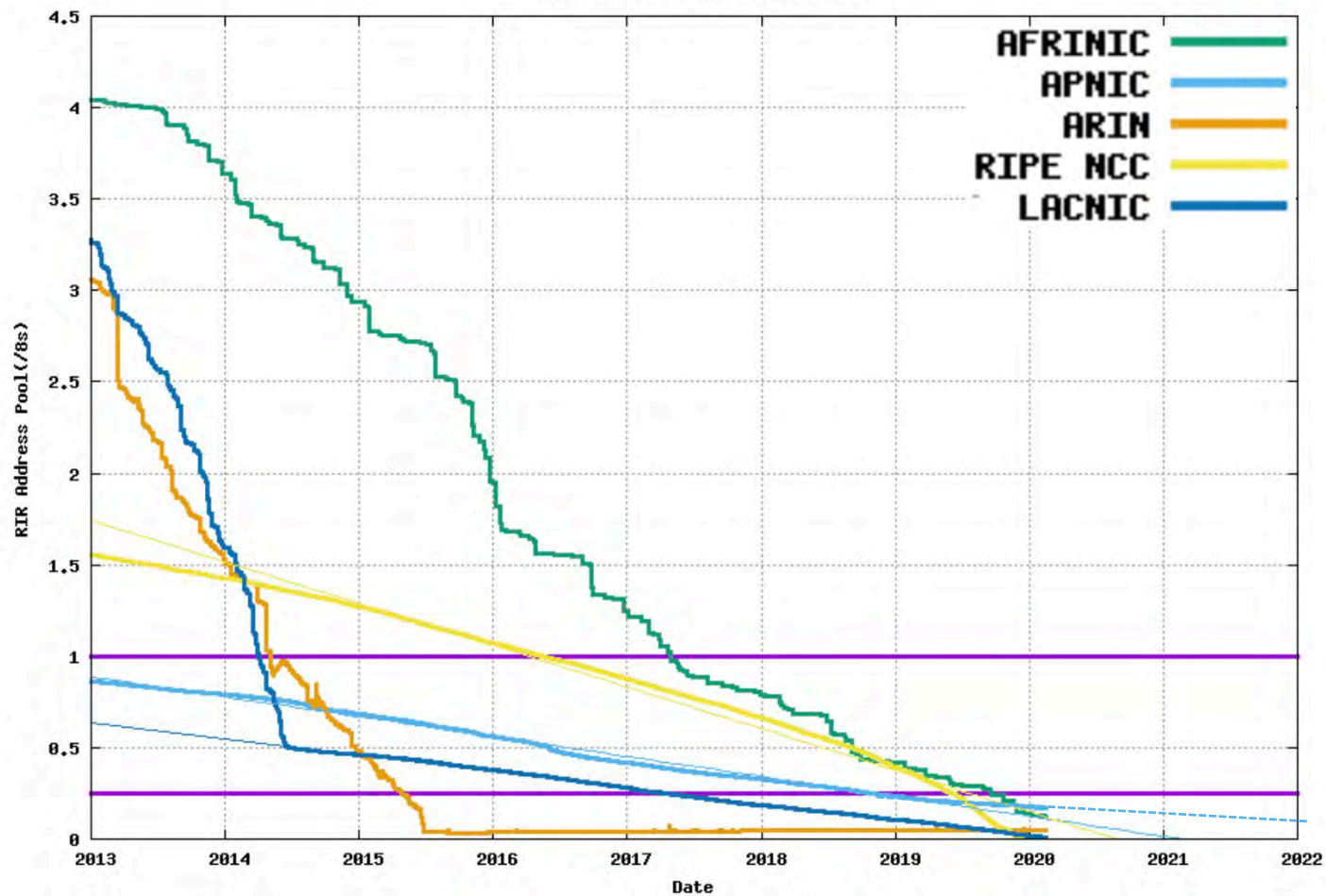
Resource Holdings
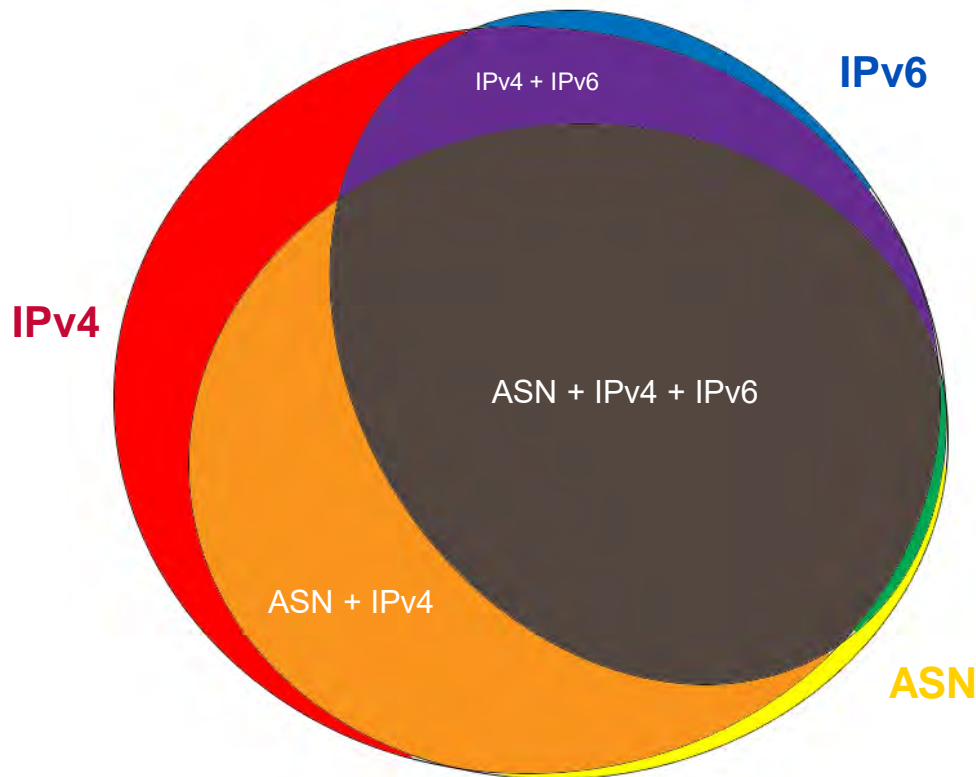
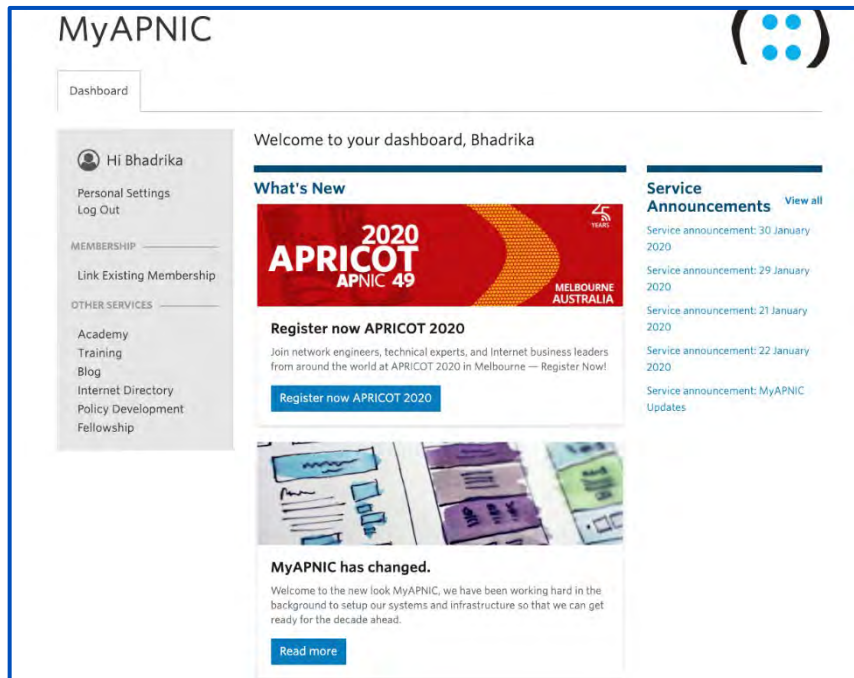| Member resource holdings	
ASN	78%
IPv4	96%
IPv6	64%

As at 31 Dec

Product Management

- Systematic approach to product development
  - Lifecycle management
  - User-centric
  - Agile

- Three cross-functional product teams
  - Registry
  - Membership
  - Information Services

- Three support teams
  - Web development
  - Platform
  - DevOps

- More in 2020

Membership Products

apnic.net/myapnic
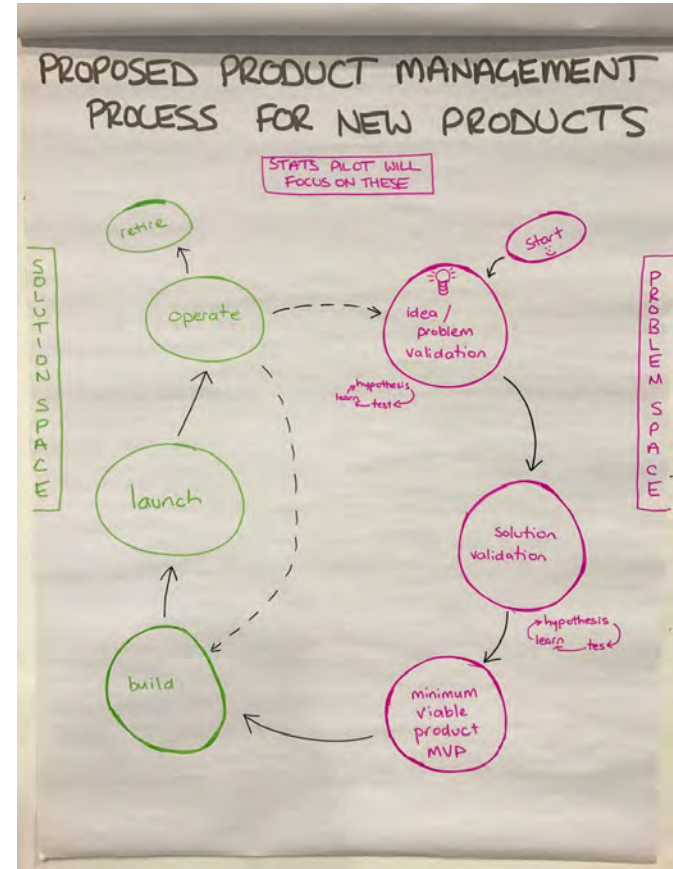
- MyAPNIC+SSO integration:
  - Event registration
  - Academy
  - Information products
- Implemented independent election platform, BigPulse
  - Online proxy and voting
  - APNIC EC and NRO NC
- IRT and contact validation
  - Implementation of prop-125
  - 1,000 emails, 62% confirmation
  - Validation extended to IRT objects and 'abuse-c'

Reclaiming Unused IPv4

- Responding to 2018 APNIC Survey
  - Q14: 57% support from respondents

- Analyse routing status and history of APNIC space
  - Some 5+ x /8 is not routed

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

- Processes developed to contact these holders to encourage return/transfer of unused resources

- Listing service of available IPv4 (supply)
  - Designed for deployment in MyAPNIC

Service Partner Trial

- Four trial partners
  - NEPALREN (one Member referred)
  - MyNOG (no Members referred so far)
  - PCTA (six Members referred)
  - Open DC/Johar Bahru Internet Exchange (new)

- Internal procedures developed to process Service Partner applications and renewals

- Evaluation due in 2020
  - End of year

Registry Products – RDAP

- Google cloud-based APNIC RDAP service
  - For 2020 deployment

- RDAP services for NIR delegations
  - Work with NIRs
  - Submitted IETF draft on RDAP mirroring
  - Demonstrated running code for server and client

- RIR-specific RDAP profile
  - To improve consistency of RDAP data
  - Work with other RIRs (NRO ECG)

APNIC

Registry Products – Whois

- Improved synchronization and consistency of APNIC-NIR data
  - Work with KRNIC, JPNIC and TWNIC

- API specifications to support APNIC-NIR automation
  - Resource delegation and sub-account management.

- Deployed whois 'stub' records for transfers out
  - Improved accuracy of transfer recording
  - From APNIC to other RIRs

- Developed 'registry correction' functions
  - To safely correct past events
  - To represent date of transfer not date of registration

- Whois cleanup, due to software bug
  - Restored consistency between whois, RDAP and delegation statistics.

APNIC

Registry Products – RPKI

- RPKI Technical support to NIRs
  - CNNIC, JPNIC, TWNIC, IDNIC
- Implementation proposal for prop-132 (AS0)
  - Presentation at APNIC 49
- Resource Tagged Attestation (RTA)
  - IETF draft, development underway
- NLNET Labs' 'Krill' interoperability testing
  - Delegated RPKI management
- Deployment support
  - 22 routing security workshops
  - Technical assistance for 3 Members
  - APNIC 48
  - NOG presentations, 17 RPKI blog posts
- New Routing Security/RPKI SIG

apnic.net/rpki

| Measure	31/12/2018	31/12/2019	Δ
Members with certs	21.9%	30.9%	41%
Members with ROAs	11.3%	25.97%	130%
IPv4 under ROAs	6.1%	10.66%	75%
IPv6 under ROAs	5.6%	14.2%	154%

READY TO ROA

Registry Products – RQC

- Resource Quality Check
  - Previously RQA
- Identify operational issues with Members' address blocks
  - Routing status and history
  - Route filtering
  - Email and other blacklists
  - Geolocation errors
- Included in APNIC NetOX (Network Operators Toolbox)
  - Widgets for resource quality and transfer history
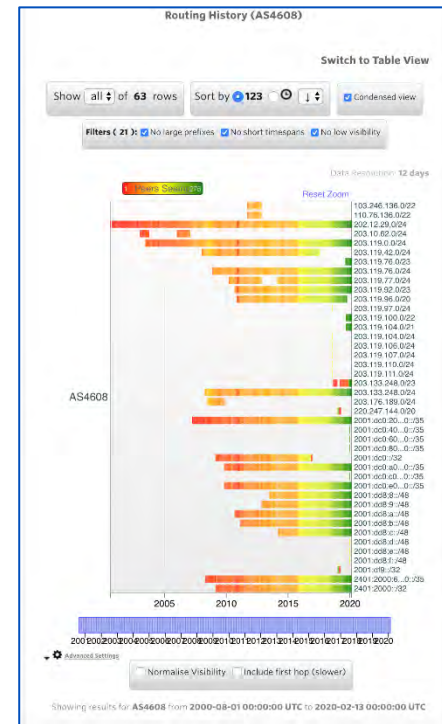
Information Products
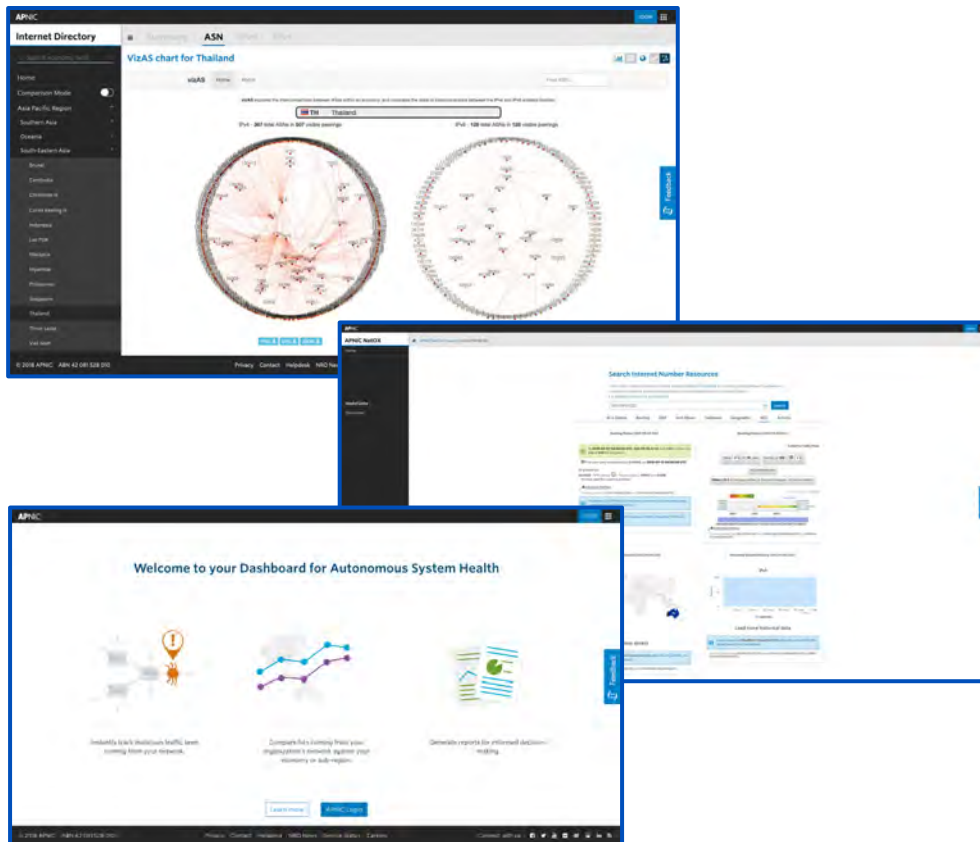
- DASH – Dashboard for AS Health
  - Launched at APNIC 48
  - Helps operators monitor suspicious traffic coming from their networks
  - Uses data from APNIC Honeynet Project
- NetOX – based on RIPEstat
  - Includes RQC functions
  - New widgets (AS relationships, PoC, IRR explorer, transfer history, abuse contacts)
- Internet Directory v2.1
  - Economy comparisons
  - IPv6 capability
  - VizAS

APNIC

19
19

Technical Infrastructure

Service	Update
Data centres and interconnections	Tokyo and Singapore selected as priority for additional IXP/peering connections; upgraded network and server infrastructure in Japan and Brisbane DCs
Information architecture	Data Vault 2.0 industry standard for BI architecture and governance
Business applications	Okta SSO authentication for internal business applications; new Salesforce registration system launched for APNIC 48;
Virtualization and cloud	RDAP in test deployment on Google cloud; product development systems also hosted in the cloud; DNS server infrastructure in Japan DC fully virtualized to host anycast RDNS nodes; decommissioned DNS unicast servers
Software process improvements	CICD used to improve workflow efficiencies; Increasing use of Kubernetes cloud deployment methods to support CICD
Software maintenance	Non-profit status with TechSoup for better organization discounts; Consolidating licensing
APNIC-CSIRT	Updated incident handling draft finalized for ISMS ISO27001; New NRO Public Safety Coordination Group established; Information security introduced in annual BCP and disaster recovery exercises

APNIC
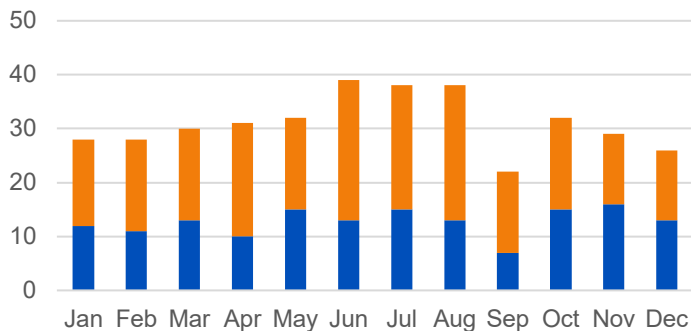
blog.apnic.net

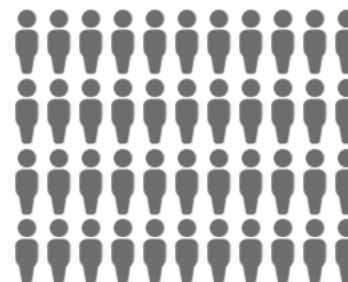**2019 Views**
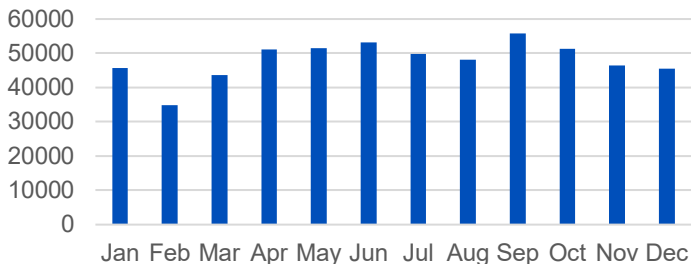
Views

Average: 48,026 / month

Monthly Posts

- Guest Posts
- APNIC Posts

Guest Blog Posts

159

Topics

Top 5: Guest Post, Security, DNS, IPv6, BGP

As at 31 Dec

APNIC

Social Media Summary 2019

	Q1	Q2	Q3	Q4	Total
Facebook					
Reach	1,087,340	499,871	395,398	292,752	2,275,361
Likes	28,304	28,646	28,994	29,241	29,241
Twitter					
Followers	9,840	10,173	10,433	10,882	10,882
Engagement	9,704	10,523	15,411	11,058	46,696
YouTube					
Views	13,714	6,930	10,674	8,237	39,555
Minutes	95,413	44,427	72,048	58,266	270,154
Slideshare					
Views	41,413	37,248	42,205	34,830	155,696
LinkedIn					
Reach	27,347	23,560	33,114	39,009	123,030
Followers	3,530	3,723	4,032	4,286	4,286

Training

PacNOG 25, Fiji

IPv6 workshop, Lao PDR
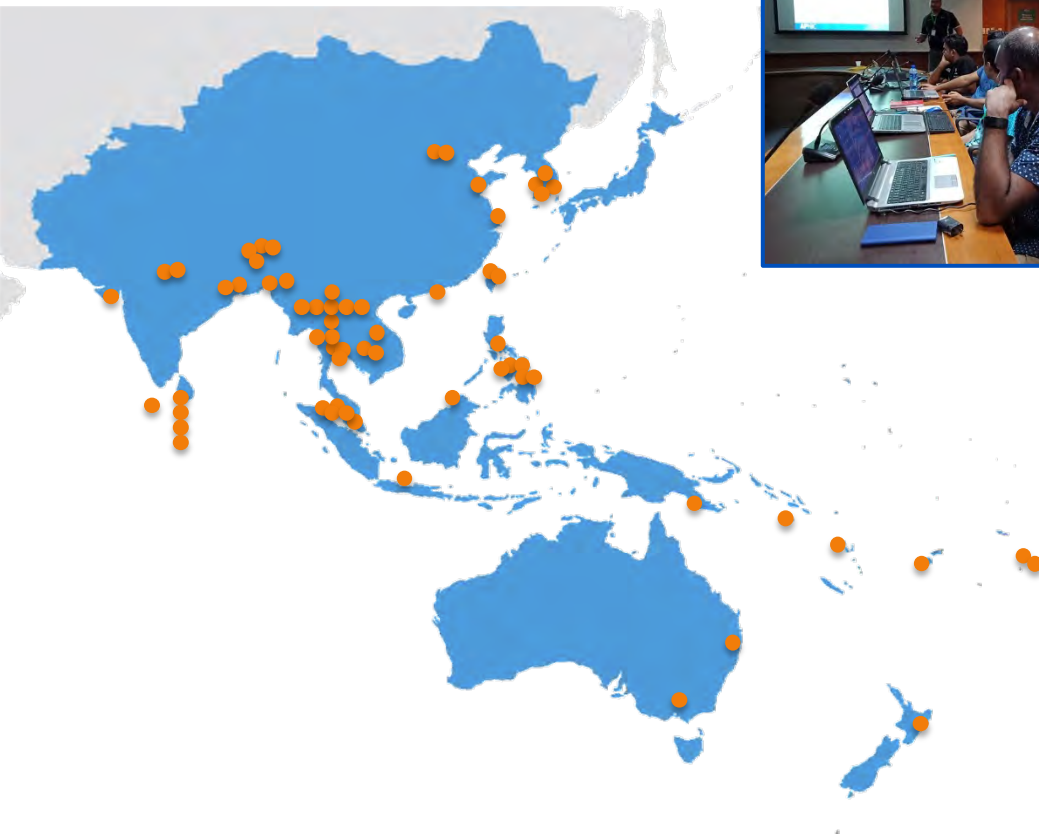
	2019
Face-to-face training	69
Economies	30
Trainees	1,971
Trainee days	5,757
Community Trainers	22
APNIC Academy Users	5,060
Economies	42
Virtual Labs	1,723
Course completions	870
Trainee days	525
YouTube training views	37,729

APNIC

APNIC Academy
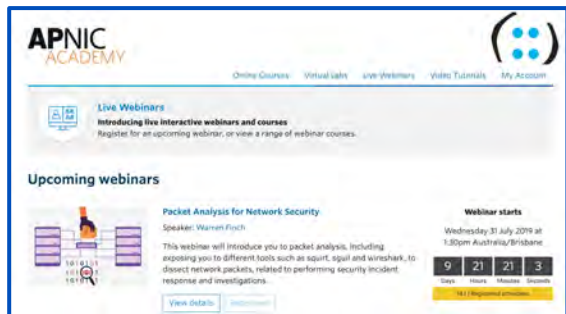
- New webinar platform
  - 12 webinars
- New courses
  - IPv6 fundamentals (5 modules);
  - IPv6 Address Planning (in development)
- New Labs
  - Cisco, Mikrotik etc etc
- Access to 'eduroam'
  - APNIC Members only
- Support for 8 languages
  - EN, CNx2, JP, KR, TH, VN, ID

academy.apnic.net

APNIC Conferences

APRICOT 2019
APNIC 47
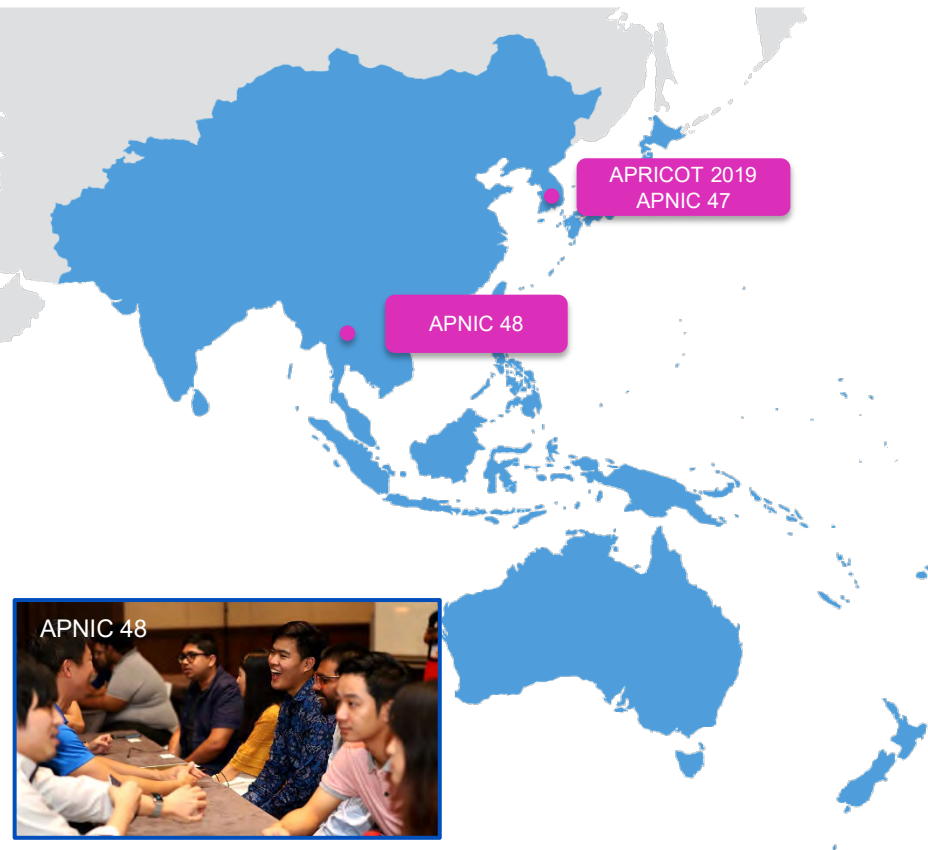
APNIC 48

APNIC 48

- 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, AP*, DotAsia, APIX

- APNIC 48
  - 422 attendees from 54 economies
  - 52 Fellows from 20 economies
    - 27 Professional, 21 Youth, 4 Returning
    - 50:50 gender ratio
  - Security and RPKI focus
  - NextGen Careers BoF

conference.apnic.net

NOG 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 $_{sp}$
btNOG 6 $_{spc}$	KHNOG* $_{c}$	HKNOG 8.0 $_{sp}$	PacNOG 25 $_{sp}$
INNOG 2 $_{spc}$	MMNOG* $_{c}$	TWNOG 3.0 $_{spc}$	PNGNOG*
SANOG 34 $_{spc}$	MYNOG 8 $_{spc}$	JANOG 44 $_{sp}$	
LKNOG 3 $_{spc}$	IDNOG 6 $_{spc}$	mnNOG 1 $_{pc}$	
npNOG 5 $_{spc}$	SGNOG 7 $_{sp}$	TWNOG 4.0 $_{c}$	
	PhNOG (July) $_{pc}$		
	VNIX-NOG $_{sp}$		
	LaoNOG*		

sponsorship (s)
presentations (p)
program committee (c)
new/reformed (*)

Technical Community

IDNOG 6

- **NOGs**: 25 regional NOGs
- **Root servers**:
  - F-root in FJ relocated;
  - K-root at BTIX, MMIX, VNIX (2);
  - new agreement for M-root with WIDE Project and JPRS
- **R&E**:
  - GEANT training at APAN 47, 48
  - Jamie Gillespie is Co-Chair for APAN Security Working Group
  - Joint AI3 & SOI Meeting
  - R&E training, supported by funding from Asi@Connect
  - Support NRENs and universities as APNIC Members

IPv6

IPv6 Deployment workshop, Kolkata

- IPv6 Training
  - 18 face-to-face, 539 trainees
  - New 5-module Academy course
- 57 blog posts
  - IPv6 Week promotion
  - 4 new success stories (30 total)
- IPv6 deployment sessions at APNIC conferences; IPv6-only Wi-Fi
- 3 technical assistance engagements
- Members holding IPv6: 64.07%
- Regional IPv6 capability: 29.87% (APNIC Labs)

Security

Adli Wahid

Jamie Gillespie

apnic.net/security
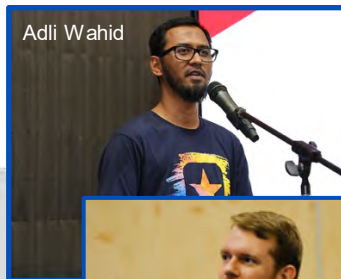
- 19 security engagements
  - presentations and workshops
  - 31 face-to-face trainings
  - 11 CERT meetings
  - 8 LEA workshops
- FIRST tracks in APNIC 47, 48
- Webinars on DDoS mitigation, DNS security and cybersecurity awareness
- APNIC Community Honeynet to BT, BD, MY, WS, TO and ID
- 93 security-related blog posts

APNIC

Government and IGOs

- ASEAN Regional Cyber Norms Workshop (MY)

- APT-WTSA20-1, first prep meeting for 2020 ITU WTSA (JP)

- ITU, Global Symposium for Regulators 2019 (VU)

- Singapore International Cyber Week (SG)

- APT PRFP-12, moderating a panel on Connectivity in the Pacific (TO)

- APEC TEL 60, 10th year engaging with APEC TEL on IPv6 (KR)

- WIC 2019 (CN)

- Working Group on Big Data (AU)

ASEAN, Cybernorms workshop

APT, WTSA prep meeting

ITU, GSR in Vanuatu

Internet Governance

- APrIGF 2019 (RU)

- VanIGF - First local IGF event in VU

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

- APIGA 2019 – IG Academy (KR)

- Nethui 2019 – APNIC sponsored fellows (NZ)

- NetThing 2019 – revived auIGF (AU)

- inSIG 2019 and Youth IGF (IN)

- Global IGF: APNIC coordinated sessions
  on Safety and Security, cybernorms, data
  governance and safety; supported NRO CCG
  (DE)

ICT DAYS Pacific 2019

APrIGF.ASIA

IGF Internet Governance Forum

APNIC Foundation

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

apnic.foundation

- Six board members now appointed: Edward Tian (CN), Sharad Sanghi (IN), Sylvia Sumarlin (ID), Michael Malone (AU), Danish Lakhani (PK), Jun Murai (JP)

- Second board meeting held in May

- Second annual report including audited financial statements published in September

- Foundation now funding administrative and project support positions (AU, PG, FJ)

- APNIC continues to provide other administrative support

Foundation Activities

- PNG training project (AUD 140K)
  - Six workshops, one technical assistance, 2 community consultations
  - First national NOG in the Pacific Islands, PNGNOG

- Final regional workshop for Pacific CERT project (AUD 21K)

- Final workshop for Pacific LEA project completed

- Final work completed for equipment support to PNGCERT

- New Pacific training project (AUD 500K)
  - Community consultations in SB, TO, VU and FJ

- Two workshops in Myanmar (fully funded by KDDI)

- Fellowships to APRICOT 2020 RPKI sessions
  - Foundation and JPNIC

APNIC Labs

Geoff Huston
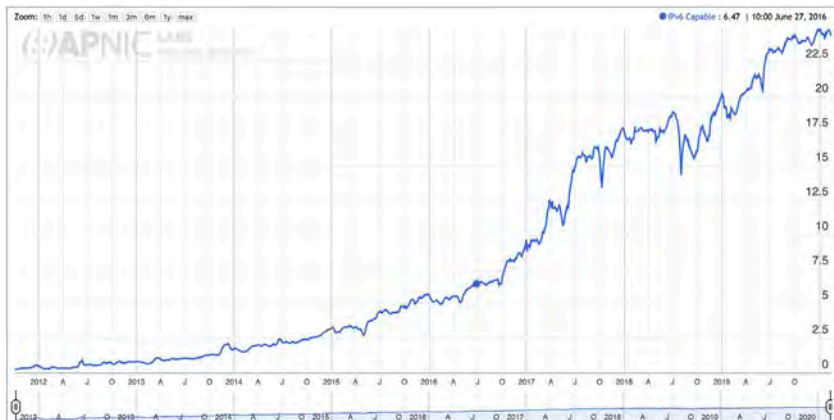
- 25 presentations at RIRs, NOGs, IETF...
- 29 research blog posts in 2019
- Research projects
    - DNS resolution and efficiency
    - DNSSEC deployment and validation
    - ICANN SSAC and RSSAC
    - IPv6 capability
    - BGP update analysis
- Measurements and experiments
    - TCP MSS values
    - NSEC caching
    - DNS query duplication/minimization
    - Profile of unsolicited traffic in IPv4
    - Path prepending in BGP

labs.apnic.net

Global Engagement
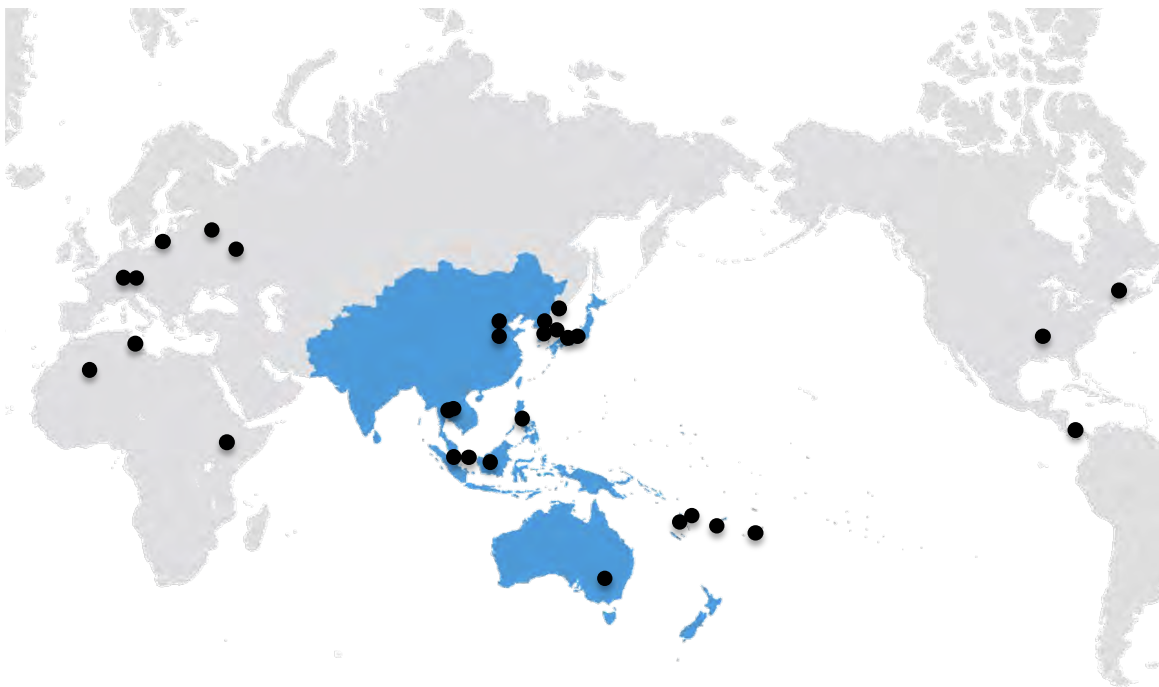
- ICANN 64, 65, 66
- DNS OARC; DNS Symposium
- IETF 104, 105, 106
- PAM 2019
- GSR 2019
- PITA 23rd AGM and Conference
- ITU-WSIS Forum 2019, APT WTSA20-1, APT PRFP-12
- I&J 3rd Global Conference
- GFCE Annual Meeting
- SICW 2019
- APEC TEL 60
- WIC 2019
- GNTC 2019
- UN WG on Big Data

RIR Collaboration

- Completed ASO Review
- NRO Coordination
  - NRO EC
  - New PSCG and CSIRT
  - ECG, CCG, RSCG
  - Policy managers
  - HR Managers
  - CFOs
- Staff exchanges
  - RIPE NCC, LACNIC, AFRINIC
- NRO presence at IGF 2019

External Engagement Summary

Sum of Count

* Includes Foundation engagements
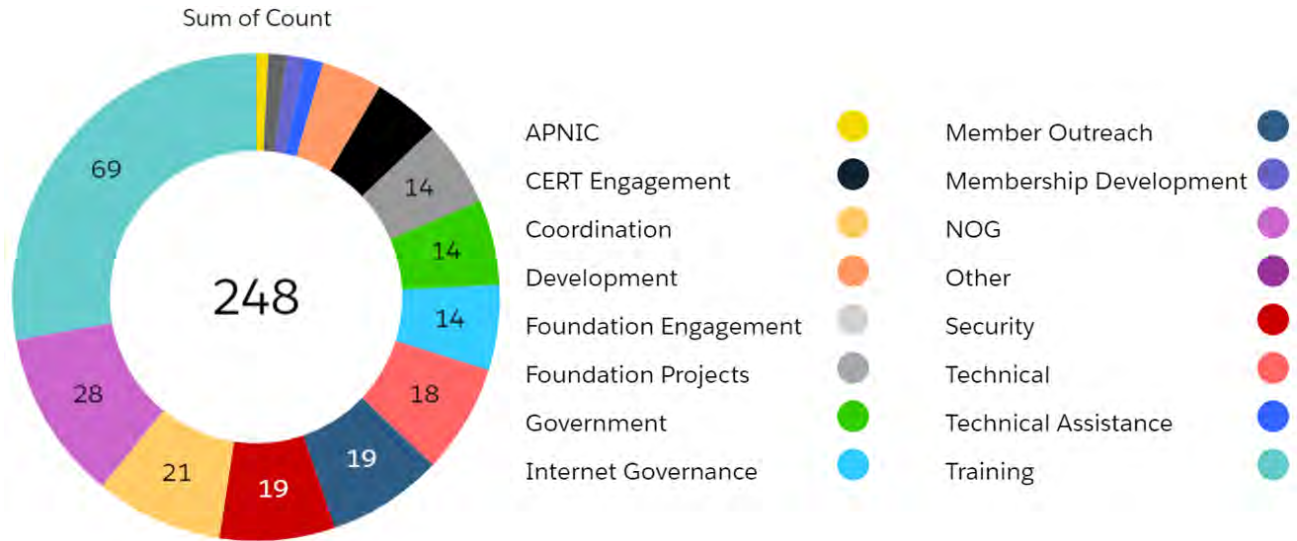
Engagement summary by type

Engagement summary by month

Behind the Scenes

- Updated internal systems
  - Expensify for expense management
  - Egencia for self-service travel booking system
  - Elmo for HR management
  - Salesforce for event registration (conferences and training)
  - Bigpulse election platform integration
  - Okta for internal SSO integration with 2FA

- Finance
  - Online partial payment options
  - Western Union payments (with FX)

Behind the Scenes

- Seven permanent vacancies filled and several casual and contract roles

- 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

- Full 3-yearly recertification on ISO 9001 QMS

- WH&S management certified and overseen by EC

Thanks!

APNIC

addressing the Internet in the Asia Pacific

2019 Annual Report

Contents

EXECUTIVE COUNCIL

Gaurab Raj Upadhaya, Chair
Principal, Global Network Development (GND)
Infrastructure, Amazon Web Services (AWS)

Benyamin P. Naibaho
Head of Indonesia Internet Exchange (IIX) & Data
Center - Operation and Development, Asosiasi
Penyelengara Jasa Internet Indonesia (APJII),
President Director, PT. Cyber Network Indonesia

Rajesh Chharia, Secretary
President, Internet Service Providers
Association of India (ISPAI),
CEO, CJ Online Private Limited

Kam Sze Yeung
Senior Manager, Network Architecture,
Akamai Technologies

Kenny Huang, PhD, Treasurer
Chair and CEO,
TWNIC

Yuedong Zhang
Deputy Chief Engineer,
CNCERT/CC

Yoshinobu Matsuzaki
Senior Engineer,
Internet Initiative Japan Inc

Paul Wilson, Ex-officio
Director General,
APNIC

WELCOME FROM THE DIRECTOR GENERAL

2019 was an eventful year for the Internet in the Asia Pacific. Here's a snapshot of APNIC's activities during the year, with more detail to follow, in this Annual Report.

Routing security in the spotlight.
Two major BGP leaks in early 2019 reminded us all of routing security as a growing challenge for network operators around the world. So this was the focus at APNIC 48, with dedicated RPKI deployment sessions and keynote, a four-day Advanced BGP & ROV workshop, APNIC's first ever 'RPKI Deployathon', a ROA Signing Social, and an RPKI BoF that led to the creation of a new Routing Security/RPKI SIG. Throughout the year, APNIC continued to help Members to use RPKI, promoted RPKI online and at NOG events, and worked with NIRs on their RPKI deployments; we also promoted Route Origin Validation (ROV) and the use of ROAs as the most important application of RPKI.

RPKI adoption increased dramatically in the APNIC region as a result (to 31% of Members, from 22% in 2018); and the registration of ROAs more than doubled (to 26% of Members, from 11%).

Changes to IPv4 delegations.
Policy developments in 2019 caused significant changes to IPv4 delegations in the APNIC region, with the reduction of the maximum delegation size from a /22 to a /23. In addition, the IPv4 recovered address pool (and waiting list) was abolished, with all remaining and recovered IPv4 addresses now being managed in a single pool.

IPv4 address depletion continues, IPv6 adoption grows.
In November, the RIPE region announced it had exhausted its IPv4 free pool; in comparison, 17.49% of APNIC's final IPv4 /8 (103/8) remained unallocated at the end of the year. IPv6, however, continued its growth in mainstream deployment in the APNIC region: 64% of APNIC Members held IPv6 resources (up from 61% in 2018), and 30% of end-users in the region were measured by APNIC Labs as IPv6 capable (up from 22% in 2018).

Developing products that match community needs.
APNIC's Product Management approach was fully adopted in 2019, with separate cross-functional teams dedicated to Registry, Membership and Information Products. The changes have helped

with significant progress on MyAPNIC and RDAP development, the Internet Directory, an RPKI "Resource Tagged Attestation" pilot, and new "MVPs" for security and number resource quality management (DASH and NetOX).

Expanding training capabilities.
Seven new Community Trainers were recruited to support face-to-face training, bringing the total to 22. This distributed team supported 39 of APNIC's 69 face-to-face training sessions in 2019. The APNIC Academy added a five-module online IPv6 Fundamentals course, as well as multilingual support in eight languages – Chinese (Simplified and Traditional), Indonesian, Japanese, Korean, Mongolian, Thai and Vietnamese – to allow more users to complete training in their native language. In total, 1,971 community members completed face-to-face training and 870 courses were completed online.

Focus on security.
In addition to delivering 33 security training sessions, APNIC's security specialists participated in 19 engagements with the security community globally (including the law enforcement

WELCOME FROM THE DIRECTOR GENERAL – CONTINUED

community); and expanded the APNIC community honeynet project with new partners from six economies (feeding data into DASH).

The end of an extraordinary decade.
2019 was the final year of a decade with many milestones and achievements. Between 2010 and the end of 2019:

- APNIC was the first RIR to reach its final IPv4 /8, signalling the beginning of IPv4 exhaustion

- IPv4 transfers were introduced, firstly between APNIC Members and then between RIR regions

- IPv6 moved from an uncertain prospect into wide-scale production deployment

- RPKI grew from a research project into a practical tool for improving infrastructure security

- The stewardship of the IANA functions was successfully transitioned to the Internet community

- APNIC grew from 2,170 to 7,769 Members, and from 65 to 82 full-time staff

- The APNIC Foundation was established

- APNIC developed many new services, capabilities and improvements to benefit Members

I'm looking forward very much to APNIC's next decade, beginning with a new four year strategy just launched. APNIC will be working hard for the community, on new registry, training and information services, growing engagement with the community, and continued growth of the APNIC Foundation; all towards our vision of a global, open, stable and secure Internet.

Thanks again for your support of APNIC and helping build this community's bright future.

Paul Wilson
Director General

WELCOME FROM THE EXECUTIVE COUNCIL CHAIR

On behalf of the Executive Council (EC), I'm pleased to present the 2019 APNIC Annual Report.

By the time Members get to read this report it will be the end of APRICOT 2020, the 25th APRICOT event. As many of you may know, APRICOT was the brainchild of APNIC's first Director General, David Conrad, and its creation was the beginning of APNIC's proud history of helping support and develop the technical community in the Asia Pacific.

That work continues to this day, as you'll read in this document. APNIC participated in 231 community engagements last year, supported 21 Network Operator Group (NOG) meetings, trained 1,971 network professionals, and hosted two conferences for 1,136 delegates. It was a busy year for APNIC.

Paul's opening remarks capture many of the highlights, but I'd like to add some other developments in 2019 that have long-term importance to the EC.

Refreshing APNIC's Strategic Direction.
Every four years, the EC and Secretariat work to develop a new strategic direction to guide APNIC's activities. As 2019 was the final year of the previous strategic direction, it was time to develop the new one.

Over several months, the APNIC EC, executive team and all Secretariat staff contributed to the development of the new strategy, which is now available as the APNIC Strategic Direction (2020-2023). Informed through feedback from Members and the community, the document sets out the future that APNIC wishes to see, the objectives and priorities that need to be achieved to help reach that future state, and the guiding principles underpinning APNIC's efforts.

This will be the last Annual Report that reports APNIC's activities under the existing outcome areas of Serving Members, Regional Development, Global Cooperation and Corporate. The new five "strategic pillars" – Membership, Registry, Development, Information and Capability – are the areas under which all APNIC activity will be grouped for the next four years and the new 2020 Activity Plan adopts these pillars.

I encourage you to take the time to look at the strategy and please share any thoughts you have.

Maintaining long-term financial health.
The EC's discussions around APNIC's future direction also considered APNIC's financial position, leading to the changes to fees announced at the end of 2019. The

adjustment is to help mitigate cost inflation borne by the Secretariat over the past eight years.

The EC is conscious that fee increases, no matter how minor, are rarely popular. However, the EC takes its responsibility of maintaining the long-term financial health of APNIC seriously. We are also committed to meeting the wishes of Members (as expressed in the 2018 APNIC Survey) to achieve a minimum financial reserve equivalent to 18 months of operating expenses. We appreciate your understanding and support, but if you have concerns, please do get in touch.

Foundation momentum continues to grow.
I'm pleased to provide another positive update on the progress of the APNIC Foundation this year. 2019 was the Foundation's third year of operation after it was established with the aim of raising funds, independent of Member contributions, to benefit the community through supporting APNIC's Internet development activities, mainly in training and technical assistance.

Three new Director appointments were made, with the addition of Danish A. Lakhani, Michael Malone and Jun Murai to the Foundation Board. An additional AUD 889,000 in funding was secured, bringing the total funding raised since inception to AUD 2.4

WELCOME FROM THE EXECUTIVE COUNCIL CHAIR – CONTINUED

million. The growth and momentum seen to date makes the EC very confident that the Foundation will reach self-sufficiency within the next two years, as originally planned, so it can continue to deliver positive development outcomes to the APNIC community.

Share your views with the EC

I mentioned the APNIC Survey earlier, and it is a good reminder that the next APNIC Survey is in 2020. I urge you to take the time to contribute to the survey as it is the primary method for the EC to gauge the performance of the Secretariat and to understand your needs and expectations. The Secretariat will be in touch when the survey launches mid-year.

Of course, if you have feedback for the EC on any aspect of APNIC, I invite you to share it with me or my EC colleagues at any time. We are your representatives and are here to listen.

I look forward to meeting with you at events around the region in 2020 and continuing the discussion online. Thanks again for your continued support of APNIC.

Gaurab Raj Upadhaya

APNIC in the Internet ecosystem

The Internet ecosystem includes many different organizations cooperating to perform necessary roles.

Internet users rely on organizations that provide access, applications and content. Those providers rely on the support of others to provide technical standards, resource registries, guiding regulations, a trained workforce, and a favourable social/business environment for the Internet to operate.

APNIC is one of five Regional Internet Registries (RIRs) providing not only IP address delegation and registration services to the Internet community, but also a range of development and information services.

Governments/Regulators
At-large communities
Industry associations
NGOs
Content
Access
INTERNET USERS
ENABLERS
PROVIDERS
Operator groups
Applications
Standards bodies
Name registries
Number registries

APNIC is one of five RIRs

INTERNET COMMUNITY
Collaboration
APNIC MEMBERS
Service
APNIC
Support
ASIA PACIFIC REGION

Resource distribution
- IP addresses
- AS numbers

Registration services
- reverse DNS
- Internet routing registry
- resource certification
- whois registry

Policy development

Capacity building
- training
- workshops
- conferences
- fellowships
- grants

Infrastructure
- root servers
- IXPs
- engineering assistance

Original research

Data collection and measurements

Publications

Local/regional/global events

Government outreach

Intergovernmental & technical organizations collaboration

Internet security

VISION

A global, open, stable and secure Internet that serves the entire Asia Pacific community.

MISSION

APNIC...

- **Functions** as the Regional Internet Registry for the Asia Pacific, in the service of the community of Members and others

- **Provides** Internet registry services to the highest possible standards of trust, neutrality and accuracy

- **Provides** information, training and supporting services to assist the community in building and managing the Internet

- **Supports** critical Internet infrastructure to assist in creating and maintaining a robust Internet environment

- **Provides** leadership and advocacy in support of its vision and the community

- **Facilitates** regional Internet development as needed throughout the APNIC community

STRATEGIC DIRECTION (2016–2019)

- Deliver advanced number registry and Member information services
- Strengthen core technical focus (such as IPv6, RPKI and DNSSEC) and engage community to advance adoption and deployment
- Sustainably support Internet infrastructure in the Asia Pacific and human capacity development
- Engage the APNIC community to strengthen the open, multistakeholder, bottom-up policy development processes and Internet governance model
- Maintain a strong organization to carry out APNIC's mission

APNIC's Activities

APNIC activities were categorized in 15 groups, across four outcome areas, as follows.

SERVING MEMBERS

- **REGISTRATION SERVICES**

  All activities related to the registration of Internet number resources (IPv4, IPv6, and ASNs) and developing and maintaining the APNIC registry.

- **CUSTOMER SERVICE**

  Maintaining a high level of service to Members via the Helpdesk, MyAPNIC, Member communication, and quality management systems.

- **TECHNICAL INFRASTRUCTURE SERVICES**

  Operation and maintenance of the technical infrastructure underpinning APNIC and its services, including data centres, network, systems and applications.

- **MEMBER TRAINING**

  Technical training and technical assistance services provided throughout the region.

REGIONAL DEVELOPMENT

- **APNIC CONFERENCES**

  Arranging the APRICOT and APNIC conferences each year.

- **REGIONAL TECHNICAL DEVELOPMENT**

  Support for the Policy Development Process, infrastructure development in the region, NOGs, CERTs and security programs.

- **COMMUNITY ENGAGEMENT**

  Collaboration with other Asia Pacific Internet organizations, maintaining the fellowship program, participating in the regional IGF and working with Asia Pacific government organizations on Internet development.

- **APNIC FOUNDATION**

  Supporting the APNIC Foundation's mission to increase investment in Internet development in the Asia Pacific region, through education and training, community development, research, and related projects and activities.

GLOBAL COOPERATION

- **GLOBAL TECHNICAL COMMUNITY**

  Collaboration with other RIRs, global technical organizations such as ICANN, PTI, the IETF and the Internet Society, and participation in global forums such as the IGF.

- **INTER-GOVERNMENTAL OUTREACH**

  Participation in global inter-governmental forums as a member of the technical community.

- **GLOBAL RESEARCH**

  Undertaking global research and measurement and presenting outcomes at regional and global events.

CORPORATE

- **HUMAN RESOURCE MANAGEMENT**

  Managing staff resources, development and knowledge management.

- **FINANCE AND ADMINISTRATION**

  Managing APNIC's finance, office and travel functions.

- **LEGAL AND GOVERNANCE**

  Activity related to legal matters and APNIC's compliance with workplace health and safety.

- **FACILITIES**

  Maintaining APNIC's office facilities.

External Engagement Summary

TYPES

- **2** APNIC
- **11** CERT Engagement
- **21** Coordination
- **10** Development
- **14** Government
- **14** Internet Governance
- **19** Member Outreach
- **3** Membership Development
- **28** NOG
- **19** Security
- **18** Technical
- **3** Technical Assistance
- **69** Training

LOCATIONS

- **38** Global
- **45** East Asia
- **38** South Asia
- **67** South East Asia
- **43** Oceania
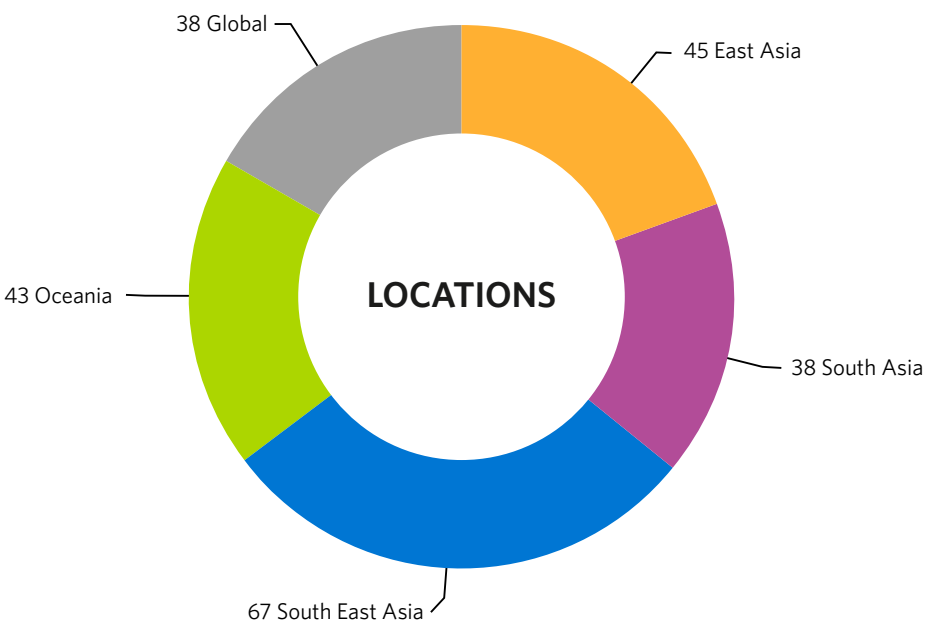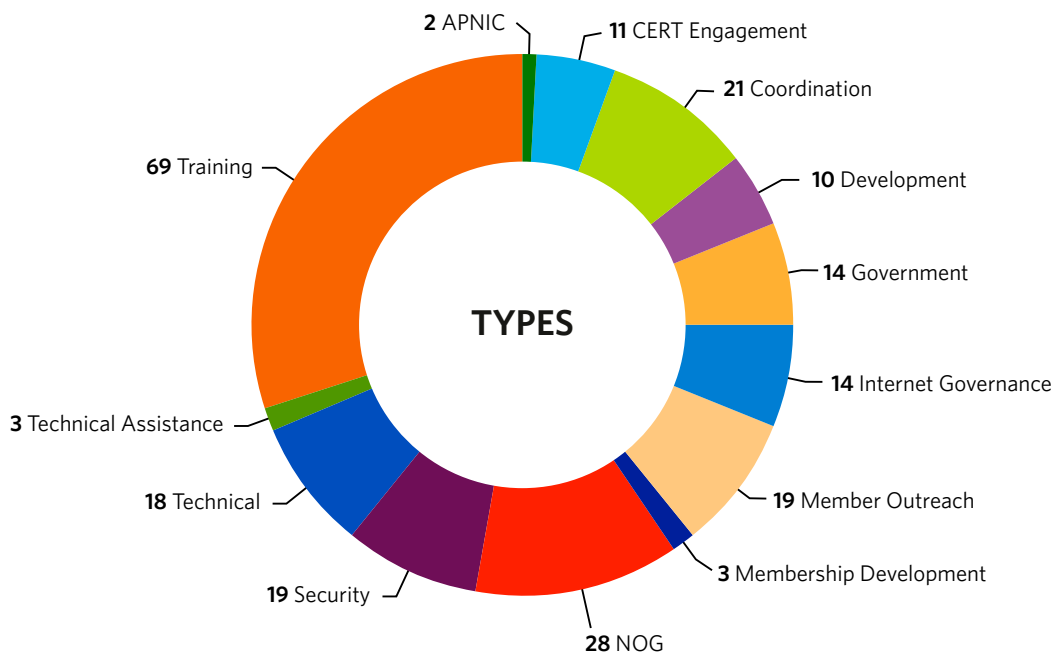
To better illustrate the scope of its activity in the region, APNIC tracks the number of distinct engagements it participates in when attending events.

For example - at a single NOG event, APNIC may provide training but also deliver technical presentations at the NOG conference track.

The two charts above show the number, type and location of those engagements in 2019. A full list of events at which APNIC participated in 2019 is provided on page 78–82.

External Engagement Summary

○ Foundation Supported

- ● APNIC
- ● CERT Engagement
- ● Coordination
- ● Development
- ● Government
- ● Internet Governance
- ● Member Outreach
- ● Membership Development
- ● NOG
- ● Security
- ● Technical
- ● Technical Assistance
- ● Training

SOUTH ASIA

AF	● ●
BD	● ● ●
BT	● ● ● ● ● ●
IN	● ● ● ● ● ● ● ● ● ● ● ●
LK	● ● ● ●
MV	● ● ●
NP	● ● ●
PK	● ●

SOUTH EAST ASIA

BN	● ● ●
ID	● ● ● ● ● ●
KH	● ● ● ●
LA	● ● ● ●
MM	● ● ○ ○ ●
MY	● ● ● ● ● ● ● ● ● ● ●
PH	● ● ● ● ● ● ● ●
SG	● ● ● ● ● ● ●
TH	● ● ● ● ● ● ● ● ●
TL	● ●
VN	● ● ● ● ●

EAST ASIA

CN	● ● ● ● ● ● ●
HK	● ● ● ● ●
JP	● ● ● ● ● ●
KR	● ● ● ● ● ● ● ● ● ● ●
MN	● ● ●
MO	● ●
TW	● ● ● ● ● ● ●

OCEANIA

AU	● ● ● ● ● ● ● ○ ●
NZ	● ● ● ●
FJ	● ○ ● ● ● ○ ○ ●
PG	○ ○ ○ ○ ○ ○
SB	○ ○
VU	● ○ ● ●
NR	●
TO	○ ● ●
WS	● ● ● ● ● ● ○

GLOBAL COLLABORATION
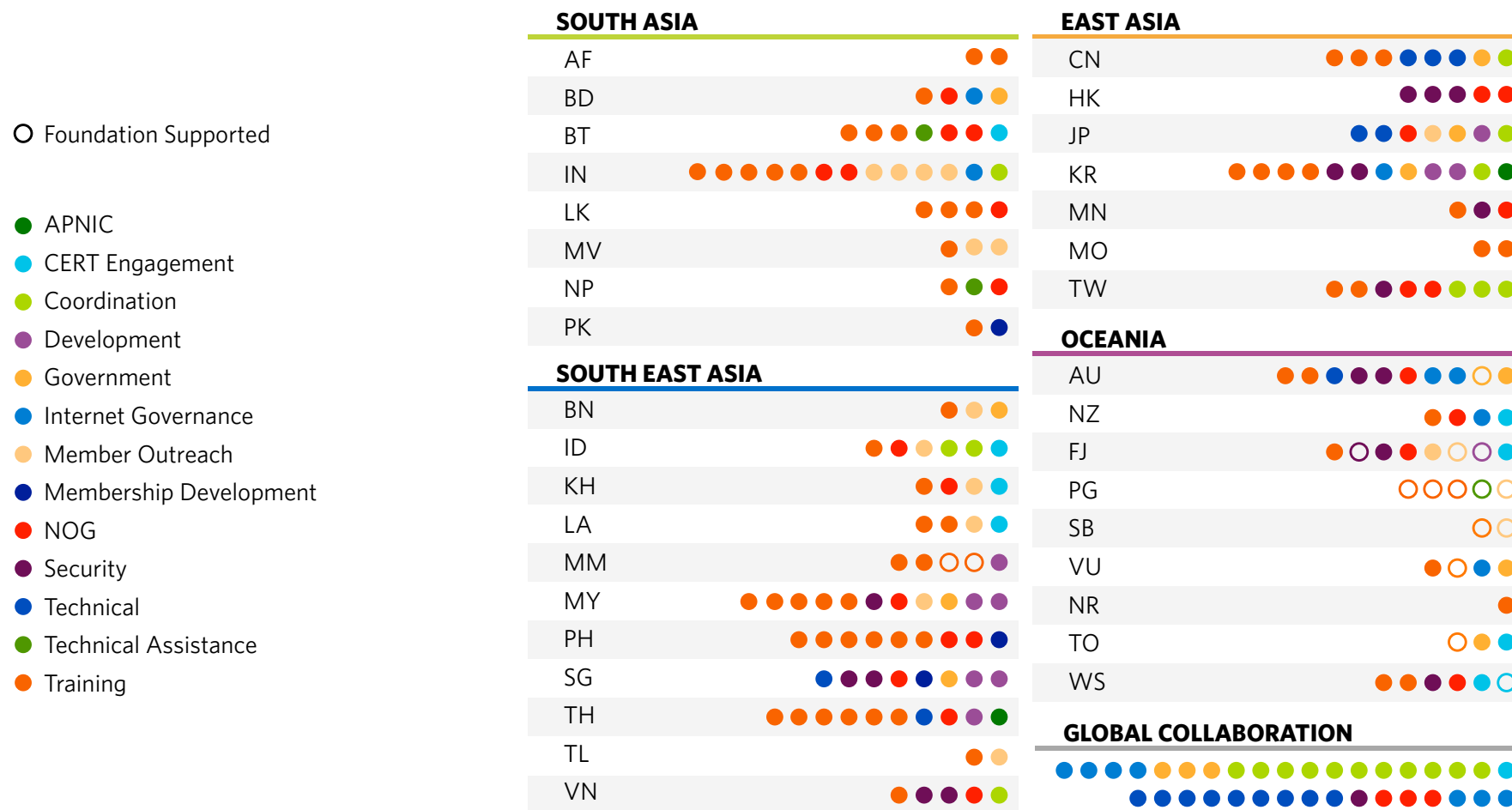
This chart illustrates the types of engagements that occurred in each economy in 2019.

APNIC did not participate in a 2019 face-to-face engagement in those Asia Pacific economies not named here.

2019 in Numbers

SERVING MEMBERS

DELEGATIONS
- 2,027 IPv4
- 1,472 IPv6
- 1,560 ASN

TRANSFERS
- 561 APNIC Region
- 114 Inter-RIR
- 521 M&A

WHOIS
- 360 Queries/sec
- 39 RDAP Queries/sec
- 615,125 Record updates

RESOURCE CERTIFICATES CREATED
- 30.9% Members

ROA ADOPTION
- 25.97% Members
- 10.66% IPv4
- 14.2% IPv6

MEMBER SERVICES
- 21,958 Tickets
- 2,511 Phone calls
- 3,401 Chat sessions
- 112 Skype calls
- 732 Instant feedback

TECHNICAL ASSISTANCE
- 9 Members
- 9 Sessions

APNIC BLOG
- 373 Posts
- 153 Guest posts
- 576,314 Views
- 271 Comments

SOCIAL MEDIA
- 39,555 Youtube views / 270,154 Minutes
- 2.2m+ Facebook page reach
- 554 Tweets / 10,882 Followers
- 4,286 LinkedIn followers
- 155,396 Slideshare views

TRAINING
- 69 Face-to-face
- 1,971 Trained
- 39 Locations
- 22 Community trainers
- 5,060 Academy users / 1,723 Labs launched
- 37,729 YouTube views / 649 Subscribers (2019)
- 1,134 Webinar attendees

REGIONAL DEVELOPMENT

APNIC 47 & APRICOT 2019
- 714 Attendees
- 3,953 Remote users
- 57 Economies

APNIC 48
- 422 Attendees
- 2,737 Remote users
- 54 Economies

NOGs
- 25 Attended
- 21 Sponsored

SECURITY ENGAGEMENTS
- 7 East Asia
- 5 Oceania
- 5 South East Asia
- 2 Global

FELLOWSHIPS
- 52 Fellows
- 26 Male
- 26 Female
- 20 Economies
- 27 Professional
- 21 Youth
- 4 Returning

GLOBAL COOPERATION

GLOBAL ENGAGEMENTS
- 43 Oceania
- 38 South Asia
- 67 South East Asia
- 45 East Asia
- 38 Global

APNIC LABS
- 29 Presentations
- 29 Blog posts

CORPORATE

HR
- 38 Courses (external)
- 50 Courses (LinkedIn)
- 7 Vacancies filled
- 7 Staff exchanges

FINANCIAL
- 9,423 Invoices issued
- 2,709 Paid invoices
- 509 Expense claims
- 2,834 Credit card transactions
- 983 Journals

Financial Performance Summary

OPERATING EXPENSES BY OUTCOME AREA

SERVING MEMBERS

Actual $11,268,017 — 49%
Budget

REGIONAL DEVELOPMENT

Actual $5,243,837 — 23%
Budget

GLOBAL COOPERATION

Actual $2,413,794 — 11%
Budget

CORPORATE

Actual $4,049,001 — 18%
Budget

0   2   4   6   8   10   12

$Millions (AUD)

APNIC categorized its expenses under the 15 activities and four outcome areas detailed on page 10.

The chart on this page illustrates 2019's actual operating expenses compared to the budget in the 2019 Activity Plan. The percentage for each area indicates the proportion of the total budget it represents.

For more details on APNIC's 2019 finances, please refer to pages 73–76 to view:

- Financial Report by Activity
- Statement of Financial Position
- Statement of Income
- Cash Flow Statement

Note: Some numbers presented in this chart may not add up precisely due to rounding.

Notes on the Activities

APNIC's activities are reported in this document under the 15 activity groups and four outcome areas outlined on page 10.

Serving Members

Regional Development

Global Cooperation
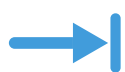
Corporate

The activities are described in terms of 'Ongoing' work and 'Projects'.

'Ongoing' includes core, ongoing activities that APNIC performs each year to meet its objectives.

'Projects' are short-term activities with defined start and end times (most being complete within one to two years).

A table summarizes the resources (financial and human) needed to complete the activities in each group.

	Budget	Actual
1 FTE	47.4	49.28
2 Expenses	$11,515,420	$11,268,017
3 CAPEX	$483,411	$354,567

1 FTE: The number of Full-Time Equivalent employees required for the activity. For example – an FTE of 1.6 may be made up of four employees who each dedicate 40% (0.4) of their time to the activity, for a period of one year (2019).

2 Expenses: Refers to all operational costs directly incurred by the activity (in AUD) during 2019.

3 CAPEX: Provides the provision for capital expenditure required by the activity (in AUD) in 2019.

All monetary figures quoted are in Australian Dollars (AUD).

SERVING MEMBERS

Serving Members - Summary

	Budget	Actual
FTE	47.40	49.28
Expenses	$11,515,420	$11,268,017
CAPEX	$483,411	$354,567

Membership Growth

20000
15000
10000
5000
0

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ NIR Sub Accounts   ■ Members
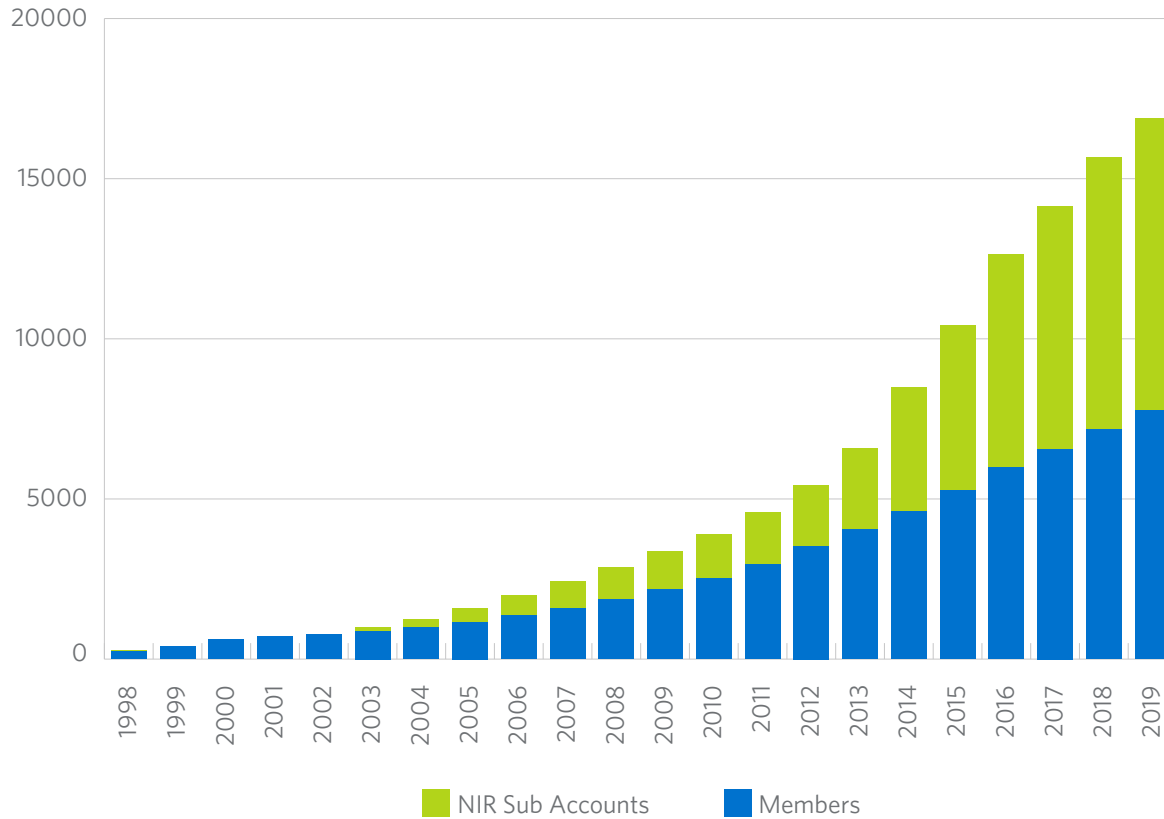
At the end of 2019, APNIC direct membership stood at 7,769, an increase of 7.8% on 2018. In addition, there were 9,116 NIR sub accounts, after growth of 6.5% in 2019.

Total combined membership was 16,885.

Membership Industry Type

2,285 Internet Service Provider (ISP)

238 Media/Entertainment

382 Government/Regulator/Municipality

414 Software vendor

497 Academic/Educational/Research

528 Banking/Financial

681 Enterprise/Manufacturing/Retail

915 Telecommunications/Mobile operator

INDUSTRY TYPE

1,930 Hosting/Data centre

133 Infrastructure (transport/hospital)

90 Other

85 Non-profit/NGO/Internet community

616 OTHER

68 Internet Exchange Point (IXP)

52 Hardware vendor

42 Domain name registry/Registrar

135 Industrial (construction, mining, oil)

11 NREN/Research network

The Membership Industry Type statistics include both Members and Non-Member accounts.

Registration Services

ONGOING

IPv4, IPv6 and ASN delegation and registration services ⟳

APNIC's core activity as a Regional Internet Registry is the distribution and registration of Internet number resources (IP addresses and AS numbers (ASNs)).

APNIC processed 1,472 IPv6 delegations, 2,027 IPv4 delegations, 1,560 ASN assignments, 675 IPv4 market transfers (561 within the Asia Pacific region and 114 between APNIC and other RIR regions) and 521 Merger & Acquisition IPv4 transfers. The proportion of APNIC Members that now hold IPv6 resources is 64.08%, an increase of 1.9% since the beginning of 2019.

As a result of the implementation of policies *prop-127* and *prop-129* the maximum IPv4 delegation size was reduced from a /22 to a /23 in February and the IPv4 recovered pool waiting list was abolished in July.

For a detailed breakdown of Internet number resource distribution in 2019, please refer to the charts on page 22.

APNIC received the following Internet number resources from IANA:

- One IPv4 allocation of a /23 from the IPv4 recovered pool in March

- Two blocks of ASNs (2,048 ASNs) in June

DELEGATIONS

| 2,027 IPv4 | 1,472 IPv6 | 1,560 ASN |

TRANSFERS

| 561 APNIC Region | 114 Inter-RIR |
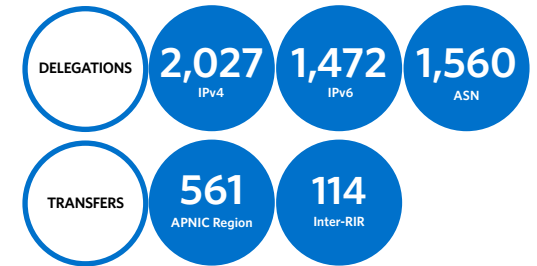
Registration Services

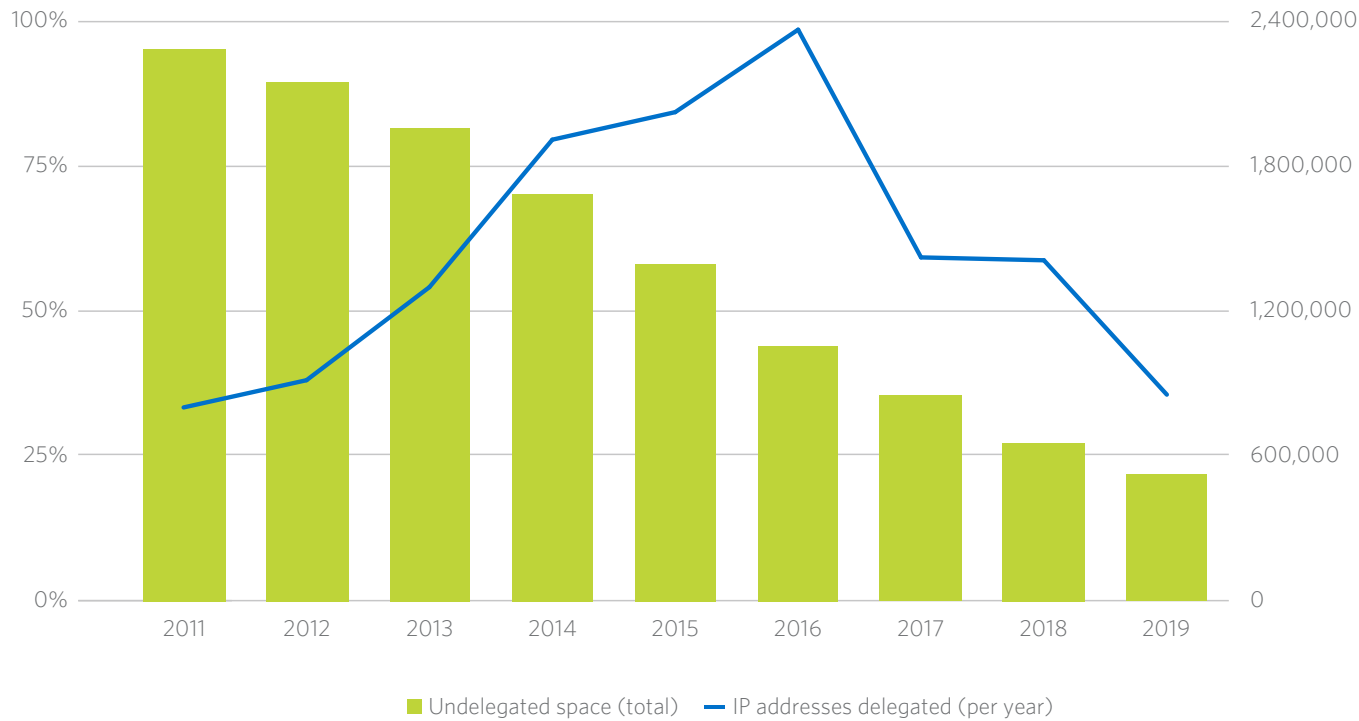|	Budget	Actual
FTE	10.15	11.73
Expenses	$1,940,109	$1,952,180
CAPEX	-	-

Registration Services

IPv4, IPv6 and ASN delegation and registration services - continued ⟳

No additional IPv6 allocations were received from IANA during 2019.

At the end of 2019, APNIC had allocated 99.32% of its total IPv4 number resource pool, 7.61% of its IPv6 pool and 87.69% of its ASN pool. The status of APNIC's Internet number resource pools at the end of 2019 is below.

IPv4 (/24s)

Total held (start)	3,471,856
➤ From IANA	2
➤ Transfers in	7,692
◀ Transfers out	(381)
Total held (end)	**3,479,169**

Total allocated	Total free
3,455,535	23,634
99.32%	0.68%

IPv6 (/48s millions)

Total held (start)	1,067,008
➤ From IANA	0
➤ Transfers in	n/a
◀ Transfers out	n/a
Total held (end)	**1,067,008**

Total allocated	Total free
81,201	985,807
7.61%	92.39%

ASNs

Total held (start)	17,045
➤ From IANA	2,048
➤ Transfers in	1
◀ Transfers out	0
Total held (end)	**19,094**

Total allocated	Total free
16,744	2,350
87.69%	12.31%

103/8 ADDRESS SPACE

Undelegated space (total) — IP addresses delegated (per year)

APNIC's 'last /8' block of IPv4 address space (103.0.0.0/8) was delegated by IANA to APNIC on 3 February 2011. On 15 April 2011, delegations began from this block of addresses under the terms of prop-062, which restricted existing and new Members to requesting a maximum of a /22.

Prop-116 came into force in 2017, restricting last /8 address space from being transferred for five years after its initial delegation. This resulted in a significant drop in the delegation rate.

In February 2019, prop-127 reduced the maximum delegation size to a /23, effectively reducing the address space consumed by half (compared to the previous year).

IPv4 DELEGATIONS

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

IPv6 DELEGATIONS

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

ASN ASSIGNMENTS

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

IPv4 MARKET TRANSFERS

Legend: APNIC, Inter-RIR
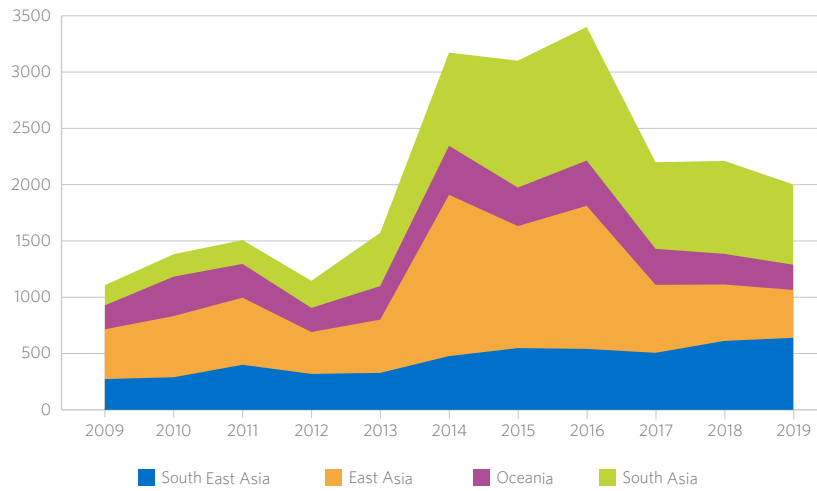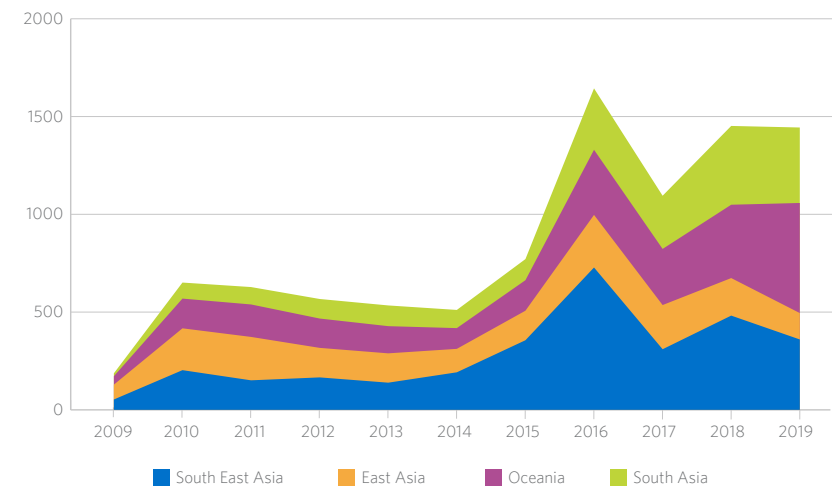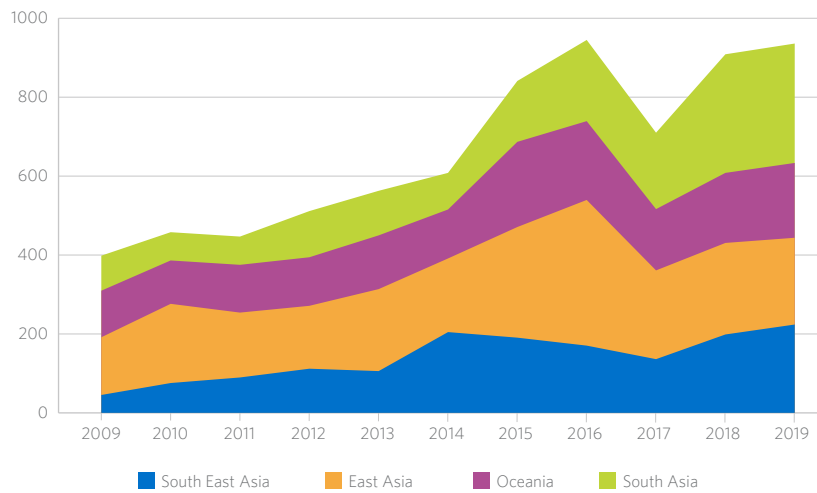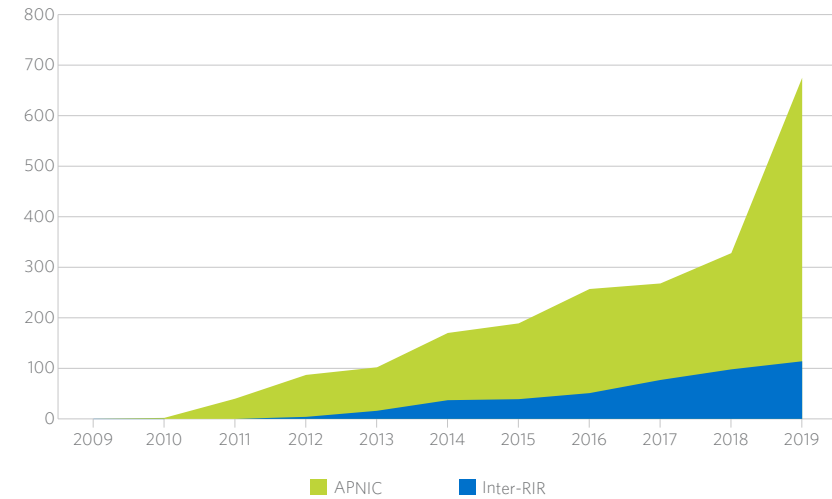
Registration Services

ONGOING

Registry operation and maintenance ↻

APNIC maintains a publicly accessible whois database and associated registry services that support the use of Internet number resources.

On average, the APNIC Whois Database was queried 360 times per second, and APNIC's Registration Data Access Protocol (RDAP) service was queried 39 times per second. APNIC account holders made 615,125 updates to whois records.

www.apnic.net/whois

www.apnic.net/rdap

RPKI adoption increased significantly in 2019; 30.9% of APNIC Members had created resource certificates (2018: 21.9%), with 25.97% of Members creating Route Origin Authorizations (ROAs) (2018: 11.3%). The percentage of allocated resources under ROAs stood at 10.66% for IPv4 (2018: 6.1%) and 14.2% for IPv6 (2018: 5.6%).

www.apnic.net/roa

WHOIS
360 Queries/sec
39 RDAP Queries/sec

RESOURCE CERTIFICATES CREATED
30.9% Members

ROA ADOPTION
25.97% Members
10.66% IPv4
14.2% IPv6
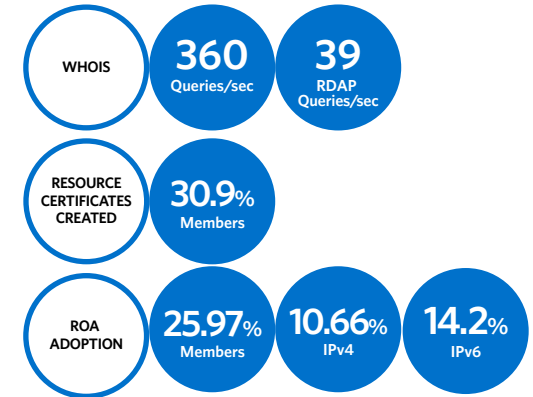
Registration Services

Registry operation and maintenance - continued

Registry enhancements and maintenance completed during the year included:

- Improved synchronization of records between APNIC and NIRs by completing consistency checks with KRNIC, JPNIC and TWNIC.

- Shared an API specification with NIRs to support automation of resource delegation and sub-account management.

- Deployed 'stub' records in Whois to more accurately reflect address space that has been transferred from APNIC.

- Developed functions to withdraw updates to delegations and reapply them, to safely correct past events.

- Identified missing records in whois due to a software bug and restored consistency between whois, RDAP and the delegated statistics file.

Registration Services

PROJECTS

Whois IRT accuracy ➙

APNIC implemented *prop-125: Validation of 'abuse mailbox' and other IRT emails*, which requires all resource holders to maintain accurate and responsive Incident Response Team (IRT) contacts in the whois database, and for APNIC to validate Member compliance every six months.

More than 1,000 validation emails were issued to over 800 Members, with a 62% confirmation rate. Preparations were made for validation requirements to be extended to IRT objects linked to customer assignments and 'abuse-c' mirroring of IRT objects in the whois.

Resource Quality Check ➙

Resource Quality Check (RQC) functionality was created in APNIC's Network Operators Toolbox (NetOX) to help identify operational issues associated with Member address space holdings received from reclaimed or transferred space (for example, route filtering, email and other blacklisting, routing history and geolocation errors).

apnic.net/rqc

2019 Project	Member Benefit
Whois accuracy support Status: Ongoing	Improved invalid contact notification and management Improved responsiveness from IRT contacts
RQC – formerly Resource Quality Assurance (RQA) Status: Completed	Reduction of operational problems associated with address space received from reclaimed or transferred space Response to APNIC Survey 2018 (Q13)

Registration Services

RPKI development ➡️

A Resource Tagged Attestation (RTA) pilot was demonstrated at the IETF and a draft (draft-michaelson-rpki-rta-01) was proposed for adoption at IETF 105. Work continued on standards specifications, with design work beginning on MyAPNIC and public web features to support RTA provisioning.

APNIC provided technical support to three NIRs running RPKI services (CNNIC, TWNIC, and JPNIC) and began testing with IDNIC on its RPKI service. NIR RPKI data was integrated into RPKI coverage reporting in the APNIC region.

APNIC began working on implementation of *prop-132: RPKI ROAs for unallocated and unassigned APNIC address space* for presentation to the community.

Interoperability tests of the 'krill' RPKI system developed by NLNET Labs began in the APNIC RPKI testbed.

Reclaiming unused IPv4 address space ➡️

Unrouted IPv4 address space has been identified and analysed, and custodians contacted to advise of options for the return or transfer of unused addresses.

A listing service was designed for APNIC account holders to list IPv4 address space available for transfer, to be deployed in 2020.

2019 Project	Member Benefit
RPKI development	Improvement of routing system security
Status: Ongoing	Functional and reliable RPKI service

Reclaiming unused IPv4 address space	Response to the APNIC Survey 2018 (Q14)
	Additional supply of IPv4 addresses
Status: Ongoing	Effective stewardship of IPv4 address resources

Registration Services

RDAP development ➜|

Work began on a Google Cloud-based APNIC RDAP service, with load testing and service monitoring improvements underway before expected deployment in 2020.

A profile and conformance testing suite was developed and discussed with the other RIRs to improve consistency of RDAP data and align it with ICANN's RDAP usage in the domain name space.

APNIC worked with the NIRs on RDAP services for NIR delegations, allowing NIRs to run their own RDAP service or provide data to APNIC's RDAP service. Data from IDNIC, KRNIC, JPNIC, and TWNIC was integrated into the service.

Work began on an IETF draft on RDAP mirroring (draft-harrison-regext-rdap-mirroring-00) to permit NIR-hosted RDAP services to be coordinated effectively with APNIC. Demonstration server and client code was released, with further development in 2020.

Discussions took place at IETF 106 on RDAP reverse search models and the use of JCard JSON data for contact information in the IETF REGEXT working group.

Development of multilingual features of the RDAP client, and RDAP updates to APNIC training materials, were deferred in favour of other development priorities in 2019.

2019 Project	Member Benefit
Development of APNIC's RDAP for access to whois information Status: Ongoing	Availability of registration information via a modern protocol Improvement of whois data completeness and availability Future integration with IPM and resource management systems

Customer Service

ONGOING

Member Services/Helpdesk/Billing ↻

The Member Services Helpdesk serves as a single point of contact for technical, administrative, and billing support for APNIC Members and the wider Internet community. The Helpdesk operates from 09:00 to 21:00 (UTC +10) on weekdays.

The Member Services team handled 21,958 tickets created by Member and community enquiries, 2,623 voice calls (phone and Skype), and 3,401 online chat sessions. In addition, more than 9,423 Member invoices and receipts were processed. The APNIC Helpdesk maintained its standing commitment to respond to Member queries within two business days.

APNIC invites 'instant feedback' from Members who interact with the Helpdesk to monitor service levels. 732 pieces of feedback were received, with over 90% rating the service received as above average or better. All negative feedback is actively resolved by Member Services staff.

MEMBER SERVICES

21,958 Tickets

2,511 Phone calls

3,401 Chat sessions

112 Skype calls

732 Instant feedback

Customer Service

	Budget	Actual
FTE	15.35	16.48
Expenses	$3,957,397	$3,952,377
CAPEX	$36,300	$33,857

Customer Service

MyAPNIC development and maintenance ⟳

MyAPNIC is a secure service website for Member to manage Internet number resource online, anytime.

MyAPNIC development focused on extending core Internet number resource management functionality, integrating other APNIC services via single-sign-on (SSO).

A new voting system (BigPulse) was selected and implementation began with a completion expected ahead of the APNIC EC election at APNIC 49 (February 2020). The new platform will remove all dependency on APNIC code and systems in EC and NRO NC elections.

Work on a public API for resource management is under development with other RIRs. An API specification was shared with NIRs to support the automation of resource delegation and sub-account management.

Improving online experience ⟳

Work to extend SSO across all APNIC online services continued with testing and rollout to MyAPNIC (expected release in January 2020).

A new version of the membership application form was also developed.

Customer Service

APNIC Blog ↻

The APNIC Blog averaged 48,026 views per month in 2019, a 20% increase on 2018's monthly average of 40,064. There were 153 Guest Posts representing 49% of total opinion posts (in line with 2018). The Blog published its 2,000th post in 2019, with all-time views surpassing 1.86 million.
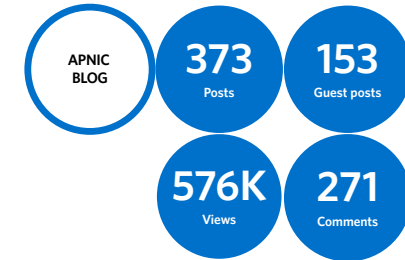
New membership outreach ↻

APNIC provided information about membership at APRICOT 2019, PCTA Convention 2019, ConnectTech Asia 2019, APNIC 48, 19th ITCN Asia and Telecom Conference and at NOG events including bdNOG 10, SGNOG 7, MYNOG 8, and SANOG 34.

The total number of new Members joining APNIC in 2019 was 841.

Quality management ↻

APNIC is an AS/NZS ISO 9001:2016 Quality Management System certified organization. This ensures APNIC delivers a high quality and consistent service to our Members.

APNIC successfully completed an external full recertification audit (conducted every three years) of its quality management system in August.

APNIC Survey ↻

Planning for the APNIC 2020 survey began in Q4 2019.

APNIC BLOG

373 Posts

153 Guest posts

576K Views

271 Comments

Customer Service

PROJECTS

Service Partner Trial ➝|

Seven new Members were signed by the three existing trial Service Partners in 2019. A fourth trial Service Partner, JBIX, was added at the end of 2019. Internal procedures to process the application and renewal of Members referred by Service Partners was developed during the trial period. An evaluation report on the trial will be presented to the EC in 2020.

Membership lifecycle management ➝|

Salesforce has been selected as the platform for an integrated Member management system. The process of integrating and streamlining systems and business processes will be considered in 2020.

2019 Project	Member Benefit
Service partner trial Status: Completed	Improved Member support based on local needs Increased membership growth due to greater awareness of APNIC services
Member lifecycle management Status: Completed	Improved experience for prospective and existing Members interacting with APNIC Improved Secretariat efficiency in membership lifecycle management

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Technical Infrastructure Services

ONGOING

APNIC maintains its main technical infrastructure in two fully redundant data centres in Brisbane, linked to the APNIC office via a triangle of fibre interconnection. APNIC also uses cloud services to provide additional redundancy and load-balancing. In addition, regular maintenance and hardware/software updates are required across APNIC's technical infrastructure.

Data centres and interconnections ↻

APNIC evaluated options for IXP/peering connections into key Internet hubs in the region for improvement of performance and latency of accessing APNIC services, with Tokyo and Singapore selected as a priority for 2020 deployment.

An upgrade of the network and server infrastructure was completed at APNIC's Japan data centre in Tokyo KDDI Otemachi, allowing for remote deployment of anycast nodes and distributed services.

An upgrade of APNIC's network infrastructure in its Brisbane data centre progressed, with 10G peering and increased traffic volumes between cloud and on-premises infrastructure possible upon completion in 2020.

Deployment of RPKI ROV with invalid route filtering was trialled using the APNIC conference network at APNIC 48 and will be deployed on the APNIC production network upon completion of the full risk assessment.

Technical Infrastructure

	Budget	Actual
FTE	13.90	13.52
Expenses	$3,603,115	$3,538,405
CAPEX	$394,111	$320,711

Technical Infrastructure Services

Maintenance, depreciation and licencing ⟳

Licencing arrangements for various online products used by staff (including GitHub, Salesforce and Cloudflare) were consolidated to reduce costs. Work began to gain 'Non-profit' status with TechSoup to receive better organizational discounts from vendors.

Information Architecture ⟳

The Information Architecture model was applied to obtain draft Identifier Technical Health Indicators (ITHI), measuring the health of Internet number resource technologies, working collaboratively with the other RIRs through the Engineering Coordination Group (ECG).

Work began on a Business Intelligence system to facilitate deeper analysis of data, from registry, financial, and account management sources. The system architecture was designed through a consultancy process in accordance with Data Vault 2.0 practices to ensure long-term viability of the analyses and reports defined.

Business applications ⟳

A new event registration system, using Salesforce and integrated with APNIC's SSO, was implemented for APNIC 48 and future training events and conferences. All staff were migrated to an internal SSO system for all core business applications, with integration and testing of a new HR system complete for rollout in early 2020.

Technical Infrastructure Services

Virtualization and cloud ⟳

Information product services, including the Internet Directory and NetOX, were migrated to cloud infrastructure to deliver a faster service to users. Several product development systems were also relocated to Google Cloud to reduce the maintenance burden on technical staff. A pilot project using cloud resources for building software was launched as a result.

APNIC decommissioned its DNS unicast servers after fully migrating all DNS zones into anycast nodes in the cloud and on-premises. DNS server infrastructure in the Japan data centre was also fully virtualized to host anycast RDNS nodes.

Software process improvement ⟳

The Product teams have continued to use the Continuous Integration Continuous Deployment (CICD) platform to improve workflow efficiencies within teams, resulting in faster integration and deployment of new releases. APNIC is also increasing the use of Kubernetes cloud deployment methods to support the CICD platform.

Core system uptime	
FTP	100%
MyAPNIC	100%
RDNS	99.99%
RDNS DNSSEC Validity	100%
Whois	100%
RPKI	99.99%
RDAP	99.99%

Average data centre bandwidth usage (Mbps)	
AU edge inbound	89
AU edge outbound	222
JP edge inbound	42.3

Average query rates (per second)	
Whois	360
RDAP	39
RDNS	29,200
RPKI	42
FTP	2.58
MyAPNIC	0.28

Technical Infrastructure Services

PROJECTS

Strengthening of APNIC-CSIRT ➡️

APNIC's incident handling procedure and process was updated and incorporated into the Information Security Management System documentation.

A proposal for inter-RIR security collaboration was agreed by the Number Resource Organization (NRO), resulting in the creation of a security coordination group and Incident Response Team.

Information security examples were introduced to the annual Business Continuity Planning and Disaster Recovery exercises.

2019 Project	Member Benefit
Strengthening of APNIC-CSIRT Status: Ongoing	Faster and coordinated handling of security incidents Increased reliability and availability of APNIC services

Member Training

ONGOING

Training services

APNIC supports Internet growth and development in the Asia Pacific region by providing training services aimed at building the capacity of the APNIC community on Internet number resource management and best practices in network operations.

APNIC held 69 face-to-face training sessions in 39 locations around the region, training 1,971 participants, and providing 5,757 hours of training in total.

At the end of 2019, 5,060 active users were enrolled in the APNIC Academy, with 870 course certificates issued. More information about the APNIC Academy is on page 38.

APNIC supported six workshops in Papua New Guinea (PNG) as part of an APNIC Foundation-funded project for the PNG IXP, and two Foundation-funded technical training workshops in Myanmar.

training.apnic.net

TRAINING

67 Face-to-face	
1,971 Trained	
39 Locations	
22 Community trainers	
5,060 Academy users **1,723** Labs launched	
637,204 YouTube views **649** Subscribers (2019)	

Member Training

	Budget	Actual
FTE	8.0	7.55
Expenses	$2,014,799	$1,825,055
CAPEX	$ 53,000	–

Member Training

ONGOING

Community Trainers ↻

APNIC has recruited 22 Community Trainers from 13 economies. During 2019, 21 Community Trainers from 12 economies assisted at 39 training events in 19 economies. At four of these training events (INNOG 2, an APNIC-organized workshop in Malaysia and Pakistan, and an APNIC Foundation workshop in PNG), Community Trainers led the training.
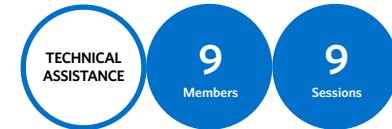
Technical Assistance ↻

APNIC's training staff respond to requests from Members for technical assistance by providing one-on-one support in a format that is neutral, independent and cost effective. In many cases it is done through partnerships and collaboration with other recognized technical experts and with funding by external agencies.

APNIC provided technical assistance to Members in Tonga, Myanmar, Bhutan, PNG, China, Indonesia, Taiwan and Viet Nam to support deployment of IPv6, IXPs, ROV and RPKI.

www.apnic.net/tas

TECHNICAL ASSISTANCE

9 Members

9 Sessions

Member Training

PROJECTS

APNIC Academy ➝|

APNIC Academy added a new IPv6 Fundamentals course comprising five new modules, including IPv6 header format, IPv6 address representation, IPv6 address types and IPv6 neighbour discovery. Development began on an IPv6 Address Planning course.

The Academy launched multilingual support in eight languages – Chinese (Simplified), Chinese (Traditional), Indonesian, Japanese, Korean, Mongolian, Thai and Vietnamese – including automated workflow language integration, allowing more users to complete courses in their native language.

The Academy also hosted 12 live elearning webinars on topics including network security, DDoS, IXP/routing, IPv6, RPKI and cybersecurity awareness. The webinars attracted 1,134 participants from 42 economies.

apnic.academy

2019 Project	Member Benefit
APNIC Academy	Greater efficiency and wider reach of APNIC training activities
	Greater choice of online training content
	Improved access to course content for non-English speakers
Status: Completed	Improved online learning experience

REGIONAL DEVELOPMENT

Regional Development – Summary

	Budget	Actual
FTE	17.95	14.60
Expenses	$5,151,144	$ 5,243,837
CAPEX	$203,000	$20,069

APNIC Conferences

ONGOING

APNIC conferences

APNIC conferences provide Members and the technical community with opportunities to participate in training, hear from global experts, participate in policy discussions, and attend formal Member meetings.
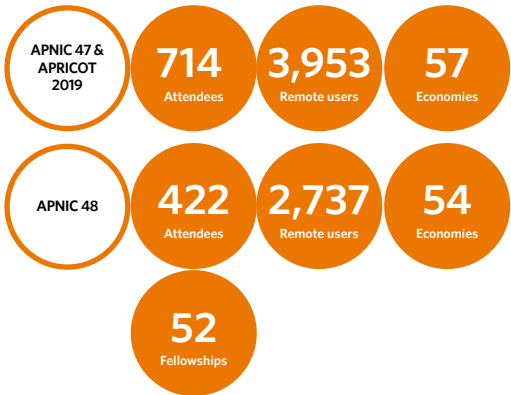
APRICOT 2019 (incorporating APNIC 48) was held in Daejeon, South Korea, from 18 to 28 February 2019 and APNIC 48 was held in Chiang Mai, Thailand, from 5 to 12 September 2019. A total of 1,136 delegates from 57 economies attended the conferences in 2019, with an additional 6,690 conference sessions viewed remotely.

APNIC supported several partner events held at the conferences, including a GFCE Triple-I meeting, APIX and AP* meetings, APCERT SC meetings, the APNG Camp Reunion, GEANT Transits Train-the-Trainer Workshop and a joint meeting of the APNIC EC and RIPE NCC Executive Board.

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

For the first time, the FIRST TC was incorporated into the main program for APRICOT 2019 and APNIC 48 as a dedicated security track. APNIC 48 also heavily featured RPKI (see page 44).

The APNIC 48 conference network introduced eduroam for Wi-Fi access and RPKI/ROV route filtering to demonstrate the technology.

APNIC 47 & APRICOT 2019	714 Attendees	3,953 Remote users	57 Economies
APNIC 48	422 Attendees	2,737 Remote users	54 Economies
	52 Fellowships		

APNIC Conferences

	Budget	Actual
FTE	5.1	5.83
Expenses	$1,432,559	$1,433,502
CAPEX	$ 3,000	$0

APNIC Conferences

APNIC conferences - continued

	APRICOT 2019	APNIC 48
Onsite participants		
Total number of on-site delegates	714	422
Economies represented	57	54
APNIC Member organizations represented	153	198
Remote participants		
Adobe Connect	196	N/A
Zoom	N/A	178
YouTube views	3,757	2,559
YouTube minutes viewed	30,153	22,112

conference.apnic.net

Regional Technical Development

Policy development ↻

APNIC supports community policy development primarily through the Policy SIG, which develops policies and procedures that relate to the management and use of Internet number resources by APNIC, NIRs, and Members in the Asia Pacific region.

The APNIC Policy SIG considered eight proposals in 2019.

prop-124: Clarification on IPv6 sub-assignments	Presented at APNIC 47 and APNIC 48. Did not reach consensus and was returned to author.
prop-126: PDP update	Presented at APNIC 47 and APNIC 48. Did not reach consensus and was returned to author.
prop-127: Change maximum delegation size of 103/8 IPv4 pool to a /23	Consensus reached at APNIC 47. An interim arrangement was announced by the EC to limit the maximum IPv4 delegation size to a /23 during the four-week comment period. Implemented April 2019.
prop-128: Multihoming not required for ASN	Consensus reached at APNIC 47. Implemented April 2019.
prop-129: Abolish waiting list for unmet IPv4 requests	Consensus reached at APNIC 47. Implemented July 2019.
prop-130: Modification of transfer policies	Presented at APNIC 48. Did not reach consensus and was returned to author.
prop-131: Editorial changes in IPv6 policies	Consensus reached at APNIC 48. Will be implemented in 2020.
prop-132: RPKI ROAs for unallocated and unassigned APNIC address space	Consensus reached at APNIC 48. Will be implemented in 2020.

Regional Technical Development

	Budget	Actual
FTE	8.00	5.31
Expenses	$1,962,789	$1,896,347
CAPEX	$200,000	$17,355

Regional Technical Development

Policy development - continued

The community agreed to change the wording of the Policy SIG Charter as follows:

'The Policy SIG charter is to develop policies which relate to the management and use of Internet number resources within the Asia Pacific region. These include policies for resource allocation, recovery and transfer, and for resource registration within whois, reverse DNS, RPKI, and related services.'

The Policy SIG conducted a Chair election during APNIC 47 with current Chair, Sumon Ahmed Sabir, re-elected for a two-year period. There was no other candidate for the election.

www.apnic.net/policy

Internet exchanges, root servers and measurement

APNIC has supported 33 DNS rootserver installations in the region, coordinating with hosts and root-server operators. It also supports the deployment and management of IXPs as needed to improve interconnection between Member networks.

APNIC assisted with the deployment of a K-root server in Thimphu, Bhutan (hosted by BTIX) in January 2019 and another K-root server in Yangon, Myanmar (hosted by MMIX) in November 2019 and agreed to sponsor three other root server instances: an F-root instance upgrade at the University of the South Pacific connecting to Fiji-IXP in Fiji, and two K-root instances hosted by VNIX in Hanoi and Ho Chi Minh City, Viet Nam.

APNIC supported the BKNIX Peering Forum 2019, MMIX Peering Forum 2019, Peering Asia 3.0 and the 30th DNS-OARC Workshop. APNIC also continued to contribute sponsorship support for Peering DB, IXP Manager and IXPDB in 2019.

Regional Technical Development

RPKI

APNIC has increased its focus on RPKI and routing security, through training and technical assistance; encouraging the use of RPKI ROV in regional IXPs.

APNIC conducted 22 face-to-face routing security training sessions in 2019. It also provided technical assistance on RPKI and ROV deployment to Members in Bhutan, Hong Kong, Malaysia, Myanmar and Viet Nam. APNIC continued providing technical advice to IDNIC on its RPKI deployment, and exploring RPKI system development with zDNS.

Routing security was a focus at APNIC 48. Two dedicated RPKI conference sessions, an RPKI keynote presentation, a one-day RPKI Deployathon, a Routing Security BoF and a ROA Signing Social were held. ROV route filtering was also implemented on the conference network.

At the Routing Security BoF, the community agreed to create a new SIG on Routing Security and RPKI. A draft charter was created and elections for the Chair and Co-Chair roles will be held at APNIC 49.

Regional Technical Development

IPv6 deployment

APNIC provides training and technical assistance on IPv6, including sharing of IPv6 best practice, information resources and case studies and encouraging deployment by Members with unrouted IPv6 allocations.

APNIC conducted 17 face-to-face IPv6 deployment workshops and one IPv6 deployment webinar in 2019, and provided IPv6 technical assistance to Members in Bhutan, Nepal and Tonga.

APNIC continued to share information on regional IPv6 deployment:

- IPv6 deployment presentations at APNIC conferences from operators including SK Telecom (Korea), Tonga Communications Corporation (Tonga), Chunghwa Telecom (Taiwan), True (Thailand), and Softbank (Japan).

- Four new IPv6 deployment success stories published on apnic.net (bringing the total to 35).

- 57 IPv6-tagged blog posts.

During 'IPv6 Week' in June, APNIC promoted IPv6 deployment via social media posts, published six blog articles and promoted IPv6 services to Members.

At the end of 2019, the ratio of APNIC Members holding IPv6 resources was 64.07%, and total IPv6 capability in the APNIC region (as measured by APNIC Labs) was 29.87%.

Regional Technical Development

Network Operator Groups

NOGs support local Internet development, technical training, and networking opportunities for engineers and operators.

APNIC participated in 25 NOG events in the Asia Pacific region, providing sponsorship, speakers, trainers, hostmaster consultations and technical support (where needed).

Several new and re-formed NOGs emerged in 2019 including Mongolia NOG (mnNOG), Cambodia NOG (khNOG), Myanmar NOG (mmNOG) and Papua New Guinea NOG (PNGNOG).

Mongolia - mnNOG
Pakistan - PKNOG
India - INNOG
Nepal - npNOG
Bangladesh - bdNOG
Thailand - ThaiNOG
Cambodia - khNOG
Sri Lanka - LKNOG
Indonesia - IDNOG
South Asia – SANOG
Japan - JANOG
Bhutan - BhutanNOG
Taiwan - TWNOG
Hong Kong - HKNOG
Myanmar - MMNOG
Viet Nam - VNIX-VNOG
Philippines - PhNOG
Malaysia - MyNOG
Singapore - SGNOG
Papua New Guinea - PNGNOG
Pacific - PacNOG
Australia - AusNOG
New Zealand - NZNOG

Regional Technical Development

Security

APNIC promotes security best practice among APNIC Members, advises on the importance of establishing incident response capabilities at network operator, national and regional levels, and actively participates in the regional cybersecurity community.

APNIC delivered 31 face-to-face and two online security training sessions. In addition, APNIC participated in 19 other security engagements including:

- Capacity building with the law enforcement and public safety community, including a workshop for Regional Investigators and Prosecutors in Taiwan, the International Symposium on Cybercrime in South Korea, two Cyber Pasifika workshops in Fiji, a Hong Kong Police Cyber Command course, a Regional Digital Evidence workshop in Viet Nam, and a session with INTERPOL in Singapore.

- Attending and presenting at the Cybersecurity Regional Forum, the GFCE Triple-I Workshop, ConnectTechAsia 2019, and the PITA AGM.

- Presenting case studies from the APNIC Community Honeynet project with project partners at btNOG 6, the IDNIC OPM, and MNSEC 2019.

- Two FIRST Board meetings in Estonia and Peru, the FIRST Annual Conference in Scotland, and the FIRST Regional Symposia in Fiji. Adli Wahid's term as a FIRST Board Member concluded in 2019 after five years of service.

- Collaborating with FIRST, KRCERT/CC and APCERT to organize APRICOT's one-day security track, and again with FIRST to organize the one-day security track at APNIC 48.

SECURITY ENGAGEMENTS

7 East Asia	**5** Oceania
5 South East Asia	**2** Global

Regional Technical Development

Security - continued ↻

APNIC sponsored the following security events:

- RISE-HK Conference, Hong Kong

- Threat Con, Nepal

- DragonCon 2019, Hong Kong

- MNSEC 2019, Mongolia

- National Cyber Security Week 2019, Sri Lanka

- 2019 Cyber Jawara, Indonesia

- Annual Global Honeynet Conference 2019, Austria

APNIC's Community Honeynet project was expanded with partners in Bhutan, Bangladesh, Malaysia, Samoa, Tonga and Indonesia. The data is used by the Dashboard for Autonomous System Health (DASH) network security product (see page 50) and for network security training and engagement activities.

www.apnic.net/security

Regional Technical Development

CERT/CSIRTs

APNIC supports development of CERT/CSIRT capabilities in the Asia Pacific region by providing advice, technical training and facilitating cross-sector, public-private engagement.

APNIC delivered a Regional CSIRT training workshop in Samoa for 35 delegates from nine economies (Tonga, Vanuatu, PNG, Cook Islands, Solomon Islands, Kiribati, Tuvalu and Samoa), under an APNIC Foundation funded project to build cybersecurity capacity in the Pacific. Technical assistance was provided to CERTs in Tonga and Samoa.

APNIC provided training at the FIRST Security track at APRICOT 2019, TRANSITS-I workshops at APAN 47 and APAN 48, the TRANSITS Train-the-Trainer workshop at APNIC 48, the APISC Annual CERT workshop in South Korea (organized by KISA), a Bhutan CIRT Web Application Security workshop, and the APCERT 2019 Conference in Singapore.

APNIC staff participated as program committee members for AusCERT and the FIRST Regional Symposia in Fiji.

Regional Technical Development

PROJECTS

Network Security Product →|

The Dashboard for Autonomous System Health (DASH) product was developed and launched. DASH supports network security by alerting Members to malicious traffic originating from their networks, using data from APNIC's Community Honeynet.

DASH will continue to be enhanced in line with Member feedback.

dash.apnic.net

Internet Directory and Other Information Services →|

APNIC released version 2.1 of the Internet Directory, including IPv6 deployment charts as embeddable web components, and a new 'comparison mode'.

APNIC also released the APNIC Network Operators ToolbOX (NetOX), a tool designed to help check the quality of Internet number resources. Based on RIPEStat, NetOX combines information from a range of sources including registry databases, Internet performance measurements and RIPE's RIS and Atlas services. Information is searchable at the level of IP address, IP prefix or ASN as well as aggregated by economy. Other functions include CAIDA's AS relationships widget, Points of Contact widget, and IRR Explore widget.

Both NetOX and the Internet Directory will continue to evolve in line with community feedback.

APNIC began developing a shared online platform prototype for network operators, following user research activities and interviews. Development will continue in 2020.

netox.apnic.net   stats.apnic.net

2019 Project	Member Benefit
Network Security Product Status: Completed	Response to 2018 APNIC Survey (Q11) Better assessment and mitigation of some cyber threats
Internet Directory and Other Information Services Status: Completed	Response to 2016 and 2018 APNIC Survey Better understanding of Internet infrastructure deployment in the region Better understanding of delegation and usage of Internet number resources

Community Engagement

ONGOING

Community sponsorship ⟳

APNIC provides sponsorship to various Internet organizations and events to support Internet development and help build capacity, especially in developing economies.

In addition to sponsoring 21 NOG events, APNIC also supported nine other community events in the region, (a full list of sponsored events is included on pages 78–82).

APNIC was a paid member of APT, PTC, Internet Society (ISOC) and the ITU in 2019.

Fellowship program ⟳

APNIC's fellowship program provides opportunities for those working in the Asia Pacific Internet community to attend and participate in APNIC conferences. The program places special emphasis on encouraging diversity and supporting community members from developing economies.

APNIC provided fellowships to 52 fellows from 20 economies in the region to attend APNIC 48. This comprised 27 professional, 21 youth and four returning fellows, with a 50:50 gender ratio. Across APNIC's four sub-regions, 24 fellows were drawn from South East Asia, 15 from South Asia, nine from East Asia and four from Oceania.

APNIC also contributed AUD 10,000 to the APrIGF fellowship program.

FELLOWSHIPS

52 Fellows	**26** Male	**26** Female
20 Economies	**27** Professional	**21** Youth
7 Returning		

Community Engagement

	Budget	Actual
FTE	3.65	2.40
Expenses	$994,588	$1,099,120
CAPEX	-	-

Community Engagement

Community participation

APNIC encourages participation in APNIC conferences, policy development, SIGs, community events and APNIC's online community information portals.

APNIC activities to encourage participation in the Policy Development Process (PDP) included:

- Policy engagement presentations delivered at bdNOG 10, SANOG 34, INNOG 2, and APIGA 2019.

- Providing translated summaries (eight languages) of the policy proposals discussed at APNIC 47 and 48.

- Policy webinars pre-APNIC 47 and 48, attracting 851 unique views.

- A mock Policy SIG for newcomers at APNIC 48.

- Blog posts and social media promotion.

There were 153 community contributions to the APNIC Blog, representing 49% of total opinion posts, which was in line with 2018's 149 Guest Posts (50% of total opinion posts in 2018).

Community engagement with APNIC's social media remained high – see the table on the next page.

Community Engagement

Community participation - continued

	2018	2019	% change
Facebook			
Reach*	3,402,267	2,275,361	-33%
Likes	27,869	29,241	5%
Twitter			
Followers	9,525	10,882	14%
Engagement	12,088	46,696	286%
YouTube			
Views	36,117	39,555	10%
Minutes	230,483	270,154	17%
Slideshare			
Views	137,942	155,696	13%
LinkedIn			
Followers	3,320	4,286	29%

At the APNIC 47 Cooperation SIG, the theme was 'Internet Content Blocking and Filtering – Challenges and Way Forward' and at the APNIC 48 Cooperation SIG, the theme was 'Internet Jurisdiction and the cross-jurisdictional challenges faced by network operators'. Joy Chan was elected as the new Chair at APNIC 47 and will serve a two-year term.

At the NIR SIG, Billy Cheon was elected as the new Chair and Zhen Yu assumed the role of Co-Chair. Both will serve a two-year term.

*Reduced due to Facebook algorithm changes.

Community Engagement

Government and IGOs

APNIC engages with governments and inter-governmental organization such as APEC TEL, APT, OECD, Interpol, GFCE and the ITU as a member of the technical community. APNIC provided technical perspectives on cybersecurity, Internet operations and IPv6 deployment in several global inter-governmental forums in 2019, including:

- ASEAN Regional Cyber Norms Workshop, Malaysia.

- 1st APT Preparatory Group for WTSA-20, Japan (held ahead of the 2020 ITU World Telecommunications Standardization Assembly (WTSA)).

- World Internet Conference, China.

- ITU Global Symposium for Regulators, Vanuatu.

- Singapore International Cyber Week, Singapore (including invite-only high-level sessions).

- APT PRFP-12, Tonga.

- APEC TEL 60, South Korea. The event marked APNIC's 10th year engaging with APEC TEL on IPv6 and cybersecurity.

- Working Group on Big Data, Australia.

Community Engagement

Internet governance ↻

APNIC participates in Internet Governance Forums and events throughout the region to ensure technical issues related to Internet numbers are considered among wider governance discussions.

APNIC participated in several Internet governance related events, including:

- APrIGF 2019 in Russia, with some staff participating remotely from the APNIC office. APNIC co-organized four workshop proposals.

- VanIGF in Vanuatu, the first local IGF event in Vanuatu.

- APIGA 2019 in South Korea. APIGA is an onboarding initiative from KISA and ICANN for young community members interested in Internet governance.

- NetHui 2019 in New Zealand. APNIC contributed sponsorship to the fellowship program.

- NetThing in Australia, the revived version of the former auIGF. APNIC also provided sponsorship for the event.

- India Internet Week in India, including the Youth IGF and inSIG, which APNIC supported.

- IGF 2019 in Germany, where APNIC coordinated and facilitated two sessions in the Safety, Security and Stability track, a workshop on Cybernorms, a panel on data governance and safety, and supported an NRO information booth.

Community Engagement

Research and Education Networks

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

APNIC sponsored APAN 48 in Malaysia, conducted two tutorials and worked with GEANT to again deliver TRANSITS-I security training. APNIC also presented on the APNIC Academy and assisted the APAN Security Working Group.

APNIC participated at the Joint AI3 & SOI Meeting in Keio University, Japan, and engaged with participants from Japan and universities and NRENs from South East and South Asia. APNIC was invited to host the next meeting in 2020.

Community Engagement

PROJECTS

Community diversity ⇥

Diversity measurements and data sources were identified and changes to APNIC forms were implemented to begin data collection. A preliminary analysis of APNIC 48 attendee diversity was completed.

Encouraging newcomers ⇥

At APNIC 48, APNIC targeted technical faculties at universities in Chiang Mai and Bangkok via direct mail and Facebook groups using translated content, and an APNIC 48 webpage for Thai students was created and deployed in Thai. Student pricing for the conference was lowered, and youth fellowships promoted to the community via social media, mailing lists and the APNIC Blog.

A successful 'NextGen Careers BoF' was held at APNIC 48, focusing on career advice and insights from industry leaders.

A record 21 youth fellows were selected for APNIC 48, with 206 newcomers attending the conference.

2019 Project	Member Benefit
Community diversity Status: Ongoing	Understanding of the diversity of participants in the APNIC community Greater diversity of community participation in APNIC activities Ability for greater number of Members to be involved in the APNIC community
Encouraging newcomers Status: Ongoing	Outreach to students and young technical professionals Review APNIC introductory information to make the community more accessible to newcomers

APNIC Foundation

ONGOING

Administrative support

APNIC provided administrative support (financial services, travel, logistical and other) for the APNIC Foundation under current underwriting arrangements. The Foundation began funding its own administrative positions in 2019, including filling project support positions in PNG and Fiji.

In October, the APNIC EC appointed Professor Jun Murai of Keio University, Tokyo, to the Foundation Board, leaving only one position vacant.

The Foundation published its second Annual Report, including audited financial statements in September, and added Chinese and Japanese language introductions to the website.

APNIC Foundation

	Budget	Actual
FTE	1.2	1.07
Expenses	$761,208	$814,867
CAPEX	$2,714	-

APNIC Foundation

ISIF Asia

The Information Society Innovation Fund Asia (ISIF Asia) grants program is managed by the APNIC Foundation.

APNIC provided AUD 160,000 for ISIF grants in two categories. Out of 77 applications the following grants were awarded:

ISIF Asia 2019 Network Operations Research Grants:

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

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

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

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

ISIF Asia 2019 I4D Powering Internet Infrastructure Grants:

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

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

isif.asia

GLOBAL COOPERATION

Global Cooperation - Summary

	Budget	Actual
FTE	4.75	4.47
Expenses	$2,269,206	$2,413,794
CAPEX	$43,698	$60,000

Global Technical Community

ONGOING

RIR collaboration

APNIC works with other RIRs to share experience and expertise, and collaborate on joint projects and activities. Through the NRO, the five RIRs work together on issues and projects of importance to the entire RIR community.

APNIC participated at all RIR meetings during the year, with APNIC staff also participating in NRO coordination group meetings, and a new incident response team, the Public Safety Coordination Group, which met for the first time at ICANN 66.

APNIC staff participated in staff exchanges with the RIPE NCC, AFRINIC, and LACNIC. The APNIC EC also held a joint meeting with the RIPE NCC Board in Thailand in September.

The Address Supporting Organization (ASO) Review concluded in 2019, with the review recommendations implemented.

Global Technical Community

	Budget	Actual
FTE	3.02	3.30
Expenses	$1,248,536	$1,325,820
CAPEX	-	-

Global Technical Community

I* collaboration

APNIC maintains relationships with global technical organization such as ICANN, PTI, IETF and ISOC to ensure global Internet discussion and policies include regional technical considerations.

APNIC staff participated at all three ICANN meetings in 2019. At ICANN 64 in Japan, the APNIC EC met with the ICANN Board. The NRO signed a revised ASO Memorandum of Understanding at ICANN 66 in Canada, as an outcome of the ASO Review. APNIC also participated in an NRO retreat and I* meeting after ICANN 66.

Geoff Huston continued his membership of ICANN's Security and Stability Advisory Committee (SSAC) and Root Server System Advisory Committee (RSSAC) in 2019.

Inter-governmental engagement

APNIC participated in the GFCE Annual Meeting in Ethiopia, facilitating the Task Force on Cyber Incident Management and taking part in the Global Commission on the Stability of Cyberspace meeting.

At the Marshall Centre Program on Cyber Security Studies, APNIC presented on Internet operations and Internet governance. APNIC also took part in the Internet and Jurisdiction Policy Network 3rd Global Conference.

Global Research

ONGOING

Global research and measurements

APNIC Labs delivers globally recognized research and measurement of reports of key technologies, including IPv6, BGP and DNSSEC.

Significant research activities for APNIC Labs included:

- Ongoing measurements of DNS resolution services including resolver centrality, resolution performance and DNS efficiency.

- DNSSEC deployment on the extent of use of DNSSEC validation in resolution across the Internet.

- IPv6 adoption on the extent of use of IPv6 across the Internet.

- Development of BGP update analyser, for automated detection of anomalous BGP updates.

Other work included measurements of TCP MSS values, use of NSEC caching, DNS query duplication, DNS query minimization, a profile of unsolicited traffic in IPv4 and Path Prepending in BGP.

Research presentations

APNIC shared its research findings at technical forums globally, helping network engineers and policy makers make better decisions about Internet design and development. Twenty-five presentations were made at 20 events around the world. In addition, Chief Scientist, Geoff Huston, authored 29 blog articles.

Global Research

	Budget	Actual
FTE	0.90	1.03
Expenses	$714,191	$812,232
CAPEX	$60,000	$43,698

Inter-governmental Outreach

ONGOING

Inter-governmental engagement

APNIC participated in the GFCE Annual Meeting in Ethiopia, facilitating the Task Force on Cyber Incident Management and taking part in the Global Commission on the Stability of Cyberspace meeting.

At the Marshall Centre Program on Cyber Security Studies, APNIC presented on Internet operations and Internet governance. APNIC also took part in the Internet and Jurisdiction Policy Network 3rd Global Conference.

Inter-governmental Outreach

	Budget	Actual
FTE	0.83	0.15
Expenses	$306,479	$275,742
CAPEX	-	-

CORPORATE

Corporate - Summary

	Budget	Actual
FTE	11.9	12.64
Expenses	$3,993,008	$4,049,001
CAPEX	$128,000	$130,033

Human Resource Management

ONGOING

Recruitment

APNIC filled seven permanent vacancies in 2019, including:

- Senior Software Engineer
- UX Designers
- Web Designer / Developer
- Accounts Officer
- Legal Counsel
- Systems Engineer

In addition, a number of casual and contract roles were filled, including:

- Full Stack Web Developer
- IT Helpdesk Support
- Web Designer/Developer
- Office Coordinator
- Senior HR and Payroll Coordinator

Recruitment support was provided to the APNIC Foundation for the appointment of contractors for community engagement and training activities.

Six internships and two student placements were awarded to university students in the Member Services and Finance teams.

HUMAN RESOURCES

38 Courses (external)
50 Courses (LinkedIn)
7 Vacancies filled
7 Staff exchanges
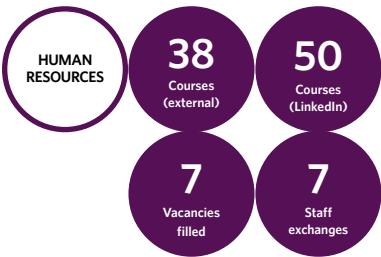
Human Resource Management

	Budget	Actual
FTE	2.00	3.52
Expenses	$1,049,628	$1,155,239
CAPEX	$3,500	$2,807

Human Resource Management

Product Management

APNIC incorporated Product Management methodology into the organizational structure with three cross-functional product teams created: Registry Products, Membership Products and Information Services. Agile Scrum was adopted as the standard methodology, with training and coaching on Product Management and Agile development principles delivered.

Staff retention and development

APNIC held an all-staff conference in August with a focus on strategic planning for the 2020-2023 period and connecting with APNIC's updated vision, mission and values.

Secretariat staff completed 38 external training courses and 13 in-house workshops. Training topics included Japanese language, leadership, risk management, product coaching, information security and penetration testing.

All staff completed annual compliance training on bullying, sexual harassment, fraud and corruption prevention, and equal opportunity and anti-discrimination.

APNIC staff have access to online learning courses through LinkedIn Learning. Fifty staff completed courses during the year, on topics such as Succeeding in DevOps, Networking Foundations, Practical Software Defined Networking and Business Writing.

Human Resource Management

PROJECTS

Onboarding development →|

Staff onboarding processes were extended to include:

- Concise policy handbooks for non-permanent appointments of different types.

- Online training to cover both compliance and professional development.

- Implementation of an improved online onboarding process.

2019 Project	Member Benefit
Onboarding development Status: Completed	Assurance of consistency and quality of service from all Secretariat appointments Enables greater workforce flexibility to extend APNIC's service provision

Finance and Administration

ONGOING

Financial management ⟳

APNIC's finance team issued 9,423 invoices, paid 2,709 supplier invoices, prepared 983 journals, settled 509 expense claims, and reconciled 2,834 credit card transactions.

Deloitte was appointed as the new external auditor as required by APNIC's five-year audit rotation policy.

A new expense management tool – Expensify – was implemented in September and integrated with APNIC's ERP system.

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

Office management ⟳

The office team actively managed the office space, facilities and supplies, including several small renovations completed in 2019.

Travel management ⟳

The travel team managed 409 travel bookings and supported travellers with visa management, travel insurance queries and emergency support where required. A new travel booking system, Egencia, was trialled.

FINANCIAL

9,423 Invoices issued	**2,709** Paid invoices
509 Expense claims	
2,834 Credit card transactions	**983** Journals

Finance and Administration

	Budget	Actual
FTE	6.75	7.70
Expenses	$1,508,088	$1,341,489
CAPEX	$9,500	$14,347

Financial and Administration

PROJECTS

Enhancing Member payment facilities ➞|

APNIC implemented an online partial payment option in December to allow Members to split credit card payments on the APNIC website. Members needing this facility (eg: from Bangladesh, China and Pakistan) are now able to split their invoice payments into small amounts (minimum of AUD 100).

A trial of Western Union Corporate as a payment method was also trialled in 2019, allowing Members to pay their APNIC fees in local currency via credit card or EFT transactions.

2019 Project	Member Benefit
Enhancing Member payment facilities Status: Ongoing	Improved experience in the payment of APNIC invoices Reduced cost and payment complexity for account holders

Legal and Governance

ONGOING

Legal counsel and business advisors ⟳

APNIC recruited a full-time internal Legal Counsel to cover an increased legal workload and to support the General Counsel.

Workplace health and safety ⟳

APNIC has a well-established Workplace Health and Safety (WHS) Management system in place, which is overseen by the EC and audited by a certified third party.

Risks were formally evaluated each quarter, and any incidents or injuries were managed in accordance with Queensland WHS legislation. These include journey claims for accidents occurring during travel to or from work, and accidents occurring at work or at work-related events.

Influenza vaccinations and emergency medical assistance for travellers were provided to help protect the physical welfare of APNIC staff.

Building and office facilities ⟳

Activities included oversight to equipment, office furniture, building security and repair and maintenance to APNIC's office. Interior fitouts included a new HR workstation installation and workstation configuration for the Product Management teams.

Legal and Governance

	Budget	Actual
FTE	1.40	0.41
Expenses	$787,186	$873,320
CAPEX	-	-

Facilities

ONGOING

Building and office facilities ⟳

Activities included oversight to equipment, office furniture, building security and repair and maintenance to APNIC's office. Interior fitouts included a new HR workstation installation and workstation configuration for the Product Management teams.

Facilities

	Budget	Actual
FTE	1.75	1.02
Expenses	$648,106	$678,953
CAPEX	$115,000	$112,879

2019 FINANCIAL REPORT BY ACTIVITY

	FTE			CAPEX			OPEX		
	Actual 2019	Budget 2019	Variance	Actual (AUD) 2019	Budget (AUD) 2019	Variance (AUD)	Actual (AUD) 2019	Budget (AUD) 2019	Variance (AUD)
Activity									
Serving Members									
Customer Service	16.48	15.35	1.13	33,857	36,300	-2,443	3,952,377	3,957,397	-5,020
Member Training	7.55	8.00	-0.45	0	53,000	-53,000	1,825,055	2,014,799	-189,744
Registration Services	11.73	10.15	1.58	0	0	0	1,952,180	1,940,109	12,071
Technical Infrastructure	13.52	13.90	-0.38	320,711	394,111	-73,400	3,538,405	3,603,115	-64,710
Total	49.28	47.40	1.88	354,567	483,411	-128,844	11,268,017	11,515,420	-247,403
Regional Development									
APNIC Conferences	5.83	5.10	0.73	0	3,000	-3,000	1,433,502	1,432,559	943
APNIC Foundation	1.07	1.20	-0.13	2,714	0	2,714	814,867	761,208	53,659
Community Engagement	2.40	3.65	-1.25	0	0	0	1,099,120	994,588	104,532
Regional Technical Development	5.31	8.00	-2.69	17,355	200,000	-182,645	1,896,347	1,962,789	-66,442
Total	14.60	17.95	-3.35	20,069	203,000	-182,931	5,243,837	5,151,144	92,693
Global Coordination									
Global Research	1.03	0.90	0.13	43,698	60,000	-16,302	812,232	714,191	98,041
Global Technical Community	3.30	3.02	0.28	0	0	0	1,325,820	1,248,536	77,284
Inter-governmental Outreach	0.15	0.83	-0.68	0	0	0	275,742	306,479	-30,737
Total	4.47	4.75	-0.28	43,698	60,000	-16,302	2,413,794	2,269,206	144,588
Corporate									
Facilities	1.02	1.75	-0.73	112,879	115,000	-2,121	678,953	648,106	30,847
Finance & Administration	7.70	6.75	0.95	14,347	9,500	4,847	1,341,489	1,508,088	-166,599
Human Resource Management	3.52	2.00	1.52	2,807	3,500	-693	1,155,239	1,049,628	105,611
Legal & Governance	0.41	1.40	-1.00	0	0	0	873,320	787,186	86,134
Total	12.64	11.90	0.74	130,033	128,000	2,033	4,049,001	3,993,008	55,993
Total	81.00	82.00	-1.00	548,368	874,411	-326,043	22,974,649	22,928,778	45,871

Note: Some numbers presented in this chart may not add up precisely to the totals provided due to rounding.

STATEMENT OF FINANCIAL POSITION

For a better understanding of APNIC Pty Ltd's financial position and performance, as represented by the results of its operations for the financial year ended 31 December 2019, the statement of financial position, and statement of income, should be read in conjunction with the annual statutory financial report and the audit report contained therein.

Assets

	2019 (AUD)	2018 (AUD)	% change from 2018
Current assets			
Cash and cash equivalents	4,028,308	4,298,431	-6%
Trade and other receivables	5,643,606	5,155,361	9%
Other current assets	836,557	665,666	26%
Total current assets	10,508,471	10,119,458	4%
Non-current assets			
Financial assets	27,702,841	24,861,226	11%
Property, plant and equipment	7,149,423	7,472,353	-4%
Total non-current assets	34,852,264	32,333,579	8%
Total assets	45,360,735	42,453,037	7%

Liabilities

	2019 (AUD)	2018 (AUD)	% change from 2018
Current liabilities			
Trade and other payables	1,167,174	1,241,761	-6%
Provisions	1,801,421	1,743,961	3%
Unearned revenue	10,570,081	10,227,970	3%
Total current liabilities	13,538,676	13,213,692	2%
Non-current liabilities			
Deferred tax liabilities	720,729	163,776	340%
Provisions	376,628	254,584	48%
Total non-current liabilities	1,097,357	418,360	162%
Total liabilities	14,636,033	13,632,052	7%

	2019 (AUD)	2018 (AUD)	% change from 2018
Net Assets	**30,724,702**	**28,820,985**	**7%**

Equity

	2019 (AUD)	2018 (AUD)	% change from 2018
Contributed equity	1	1	0%
Retained earnings	30,724,701	28,820,984	7%
Total equity	**30,724,702**	**28,820,985**	**7%**

STATEMENT OF INCOME

	2019(AUD)	2018 (AUD)	% change from 2018
Revenue			
Membership fees	21,061,318	20,213,860	4%
Non-member fees	255,751	251,054	2%
Reactivation fees	16,900	22,000	-23%
Sign-Up fees	345,500	330,000	5%
Transfer fees	173,831	164,145	6%
Sundry income	435,603	429,281	1%
Foreign exchange gain/ (loss)	-4,739	18,658	-125%
Operating revenue	**22,284,164**	**21,428,998**	**4%**
Investment income	981,871	872,034	13%
Total revenue	**23,266,035**	**22,301,032**	**4%**
Expenses			
Communication expenses	570,832	542,895	5%
Computer expenses	1,067,957	817,599	31%
Contribution to APNIC Foundation	762,179	732,710	4%
Contribution to ICANN	263,386	278,866	-6%
Depreciation expense	862,055	856,029	1%
Meeting and training expenses	425,704	396,545	7%
Office operating expenses	342,806	342,458	0%
Professional fees	1,820,443	1,458,389	25%
Salaries and personnel expenses	12,789,661	11,962,294	7%
Sponsorship and publicity expenses	627,766	759,741	-17%
Travel expenses	2,390,238	2,165,459	10%
Other operating expenses	1,051,622	901,535	17%
Total expenses	**22,974,649**	**21,214,520**	**8%**
Operating surplus			
Surplus before tax and fair value gain/ (loss) on financial assets	291,386	1,086,512	-73%
Fair value gain/ (loss) on financial assets at fair value through profit or loss	2,169,284	-73,475	-3,052%
Surplus before income tax	**2,460,670**	**1,013,037**	**143%**
Income tax (expense)/ benefit	-556,953	99,935	-657%
Surplus for the year	**1,903,717**	**1,112,972**	**71%**

CASH FLOW STATEMENT (AUD)

	2019 (AUD)	2018 (AUD)	% change from 2018
Cash flows from operating activities			
Receipts from customers	22,454,352	22,653,493	-1%
Payments to suppliers and employees	(21,658,256)	(20,141,716)	8%
Grants received		32,312	-100%
Interest received	148,918	196,868	-24%
Net cash inflow from operating activities	**945,014**	**2,740,957**	**-66%**
Cash flows from investing activities			
Payments for property, plant and equipment	(548,369)	(601,930)	-9%
Proceeds from sale of property, plant and equipment	5,563	7,075	-21%
Purchase of available-for-sale financial assets	(672,331)	(1,500,000)	-55%
Net cash (outflow) / inflow from investing activities	**(1,215,137)**	**(2,094,855)**	**-42%**
Net increase (decrease) in cash and cash equivalents	**(270,123)**	**646,102**	**-142%**
Cash and cash equivalents at the beginning of the year	4,298,431	3,629,427	18%
Effects of exchange rate changes on cash and cash equivalents		22,902	-100%
Cash and cash equivalents at the end of year	**4,028,308**	**4,298,431**	**-6%**

Supporters

APNIC acknowledges and thanks the following organizations for their generous support for APNIC conferences and training events.

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Laos National Internet Center (LANIC)

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NeocomISP Limited, Cambodia

Office of the Government Chief Information Office (OGCIO), Vanuatu

Philippine Cable Television Association, Inc. (PCTA)

Taiwan Network Information Centre (TWNIC)

University of Computer Studies, Yangon

University of Macau

University of the Philippines, Diliman

Appendix: 2019 Events List

Following is the list of events in which APNIC staff participated. A star (*) indicates events where APNIC provided sponsorship.

JANUARY

1st F2F 2019 Open Consultation and MAG meeting (IGF)	Geneva	CH
AITI SMART Future Forum	Brunei	BN
CAS 25th Anniversary/Member visits	Beijing	CN
FIRST Board Meeting	Talinn	EE
Foundation Meetings - Hong Kong	Hong Kong	HK
NZNOG 2019	Napier	NZ
SANOG 33*	Thimphu	BT

FEBRUARY

APAN 47	Daejeon	KR
APRICOT 2019/ APNIC 47*	Daejeon	KR
Australasian Aid Conference	Canberra	AU
Cyber Safety Pasifika - Tier 2 Course	Nadi	FJ
Member Visit	Brunei	BN
NANOG 75	San Francisco	US
RPKI Operational Roundtable 2019 - Cloudflare HQ	San Francisco	US

MARCH

Digital ASEAN Workshop	Singapore	SG
Foundation Meetings - Hong Kong	Hong Kong	HK
Foundation Meetings - Tokyo	Tokyo	JP
HKNOG 7.0*	Hong Kong	HK
HKPF Cyber Command Course	Hong Kong	HK
ICANN 64	Kobe	JP
IETF 104	Prague	CZ
LaoCERT Engagement	Vientiane	LA
Network Security and Packet Analysis workshop	Phnom Penh	KH
Network Security workshop	Manila	PH
Passive and Active Measurement (PAM) 2019 Conference	Puerto Varas	CL
PhNOG 2019*	Cebu	PH
Registration Services Coordination Group (RSCG) f2f Meeting	Seoul	KR

APRIL

ARIN 43	Bridgetown	BB
bdNOG 10*	Chittagong	BD
Cyber Security Regional Forum	Sydney	AU
FIRST Board Meeting - Peru	Lima	PE
GFCE AB & Working Group Meetings	The Hague	NL
ICANN APAC-TWNIC Engagement Forum	Taipei	TW
IPv4/IPv6 BGP Routing	Puchong	MY
PACLEA - Cyber Safety Pasifika Tier 2 Course	Nadi	FJ
PCTA Convention 2019	Pasay City, Manila	PH
PITA 23rd AGM & Annual Conference	Nadi	FJ
PNGTRAINING - Community Consultation and Project Evaluation	Port Moresby	PG
US DoJ (OPDAT) for Prosecutors and Judges LEA Training	Penang	MY
WSIS Forum 2019 and 2nd F2F MAG Meeting	Geneva	CH

MAY

30th DNS-OARC Workshop*	Bangkok	TH
AusCERT 2019 Conference	Gold Coast	AU
BKNIX Peering Forum 2019*	Bangkok	TH
Foundation Board meeting	Singapore	SG
Foundation meetings - Hong Kong	Hong Kong	HK
Foundation meeting - Singapore	Singapore	SG
Foundation Planning Office Visit	Brisbane	AU
ICANN DNS Symposium	Bangkok	TH
International Symposium on Cybercrime Response (ISCR) 2019	Seoul	KR
Internet Governance Stakeholder Roundtable	Canberra	AU
IPv6 Deployment workshop - TWNIC	Taipei	TW
KISA Member Visit	Naju	KR
LACNIC 31	Punta Cana	DO
LEA Training with Prosecutors	Taipei	TW
MMIX Peering Forum*	Yangon	MM
PACCERT – Regional Workshop 3	Apia	WS
Pacific ICT Days / VanIGF*	Port Vila	VU
PNGTRAINING - Lae event planning	Lae	PG
RIPE 78	Reykjavik	IS
RISE-HK*	Hong Kong	HK
Stockholm Internet Forum	Stockholm	SE
ThaiNOG 2*	Bangkok	TH

JUNE

32nd TWNIC IP OPM	Taipei	TW
3rd MAG IGF meeting	Berlin	DE
AIS'19 (with AFRINIC 30)	Kampala	UG
APT-WTSA20-1 / ASTAP-31	Tokyo	JP
ASEAN Regional Cyber Norms Workshop	Kuala Lumpur	MY
AVPN Conference 2019	Singapore	SG
btNOG 6*	Paro	BT
CNNIC OPM (China Internet Resource Conference) and IPv6 Training	Beijing	CN
ConnecTechAsia 2019	Singapore	SG
FIRST Annual Conference	Edinburgh	GB
Foundation meetings - Berlin	Berlin	DE
Henry Sutton Oration 2019	Melbourne	AU
ICANN 65	Marrakech	MA
IDNIC OPM/APJII National Meeting 2019	Medan	ID
Information Security-Intermediate workshop	Port Vila	VU
Internet & Jurisdiction Policy Network 3rd Global Conference	Berlin	DE
Internet Architecture Board (IAB) DEDR Workshop	Helsinki	FI
INTERPOL Pre-operational Meeting on Cryptojacking	Singapore	SG
IPv6 Deployment workshop	Kolkata	IN
	Beijing	CN
LAO ICT EXPO 2019	Vientiane	LA
Network Monitoring and Packet Analysis workshop	Brisbane	AU
Network Security workshop	Vientiane	LA
PacNOG 24*	Apia	WS
RightsCon Tunis	Tunis	TN
The Future of Digital Government	Incheon	KR
TWNOG 3.0*	Taipei	TW

JULY

6th IRINN OPM 2019	Kolkata	IN
APAN 48*	Kuala Lumpur	MY
APISC Annual CERT Workshop (KISA)	Seoul	KR
APNIC 50 site visits	Dhaka	BD
APrIGF 2019*	Vladivostok	RU
Development Meetings with SGNOG & Higher Ed People	Singapore	SG
Global Symposium for Regulators (GSR) 2019	Port Vila	VU
IDNOG 6*	Jakarta	ID
IETF 105	Montreal	CA
INNOG 2*	New Delhi	IN
IPv4/IPv6 BGP Routing workshop	Male	MV
IPv6 Deployment workshop	Karachi	PK
ISP Essentials workshop	Manila	PH
JANOG 44*	Kobe	JP
Member visits - BN	Brunei	BN
Member Visits - TL	Dili	TL
MYNOG 8*	Kuala Lumpur	MY
PhNOG 2019 (July)	Manila	PH
PNGTRAINING – Information Security	Port Moresby	PG
SANOG 34*	Kolkata	IN
SGNOG 7*	Singapore	SG

AUGUST

3rd AP Information Superhighway (AP-IS) Steering Committee 2019	Bangkok	TH
APIGA 2019	Seoul	KR
BtCIRT Web Application Security Workshop	Paro	BT
Foundation Meetings	Singapore	SG
IPv6 Deployment - APT	Nay Pyi Taw	MM
IPv6 Deployment workshop	Vientiane	LA
JICA cybersecurity project planning meetings	Jakarta	ID
Networking Essentials workshop	Nauru	NR
Network Security and Advanced Routing workshop	Dili	TL
PNGTRAINING – Information Security	Lae	PG
PNGTRAINING - IXP engagement and technical assistance for 2019	Port Moresby	PG
US DoJ LEA Training for Prosecutors (VN)	Ho Chi Minh	VN
VNIX-NOG 2019*	Nha Trang	VN

SEPTEMBER

19th ITCN Asia and Telecom Conference and Expo	Karachi	PK
Annual SSAC (Security & Stabillity Advisory Committe) Workshop	Los Angeles	US
APCERT Annual Conference & AGM	Singapore	SG
APNIC 48	Chiang Mai	TH
AusNOG 2019	Melbourne	AU
HKNOG 8.0*	Hong Kong	HK
IPv6 Deployment tutorial (webinar)	Afghanistan	AF
Member Visits - MV	Male	MV
Member visit - Telkomsel	Jakarta	ID
MNNOG 1*	Ulaanbaatar	MN
Network Security workshop	Macao	MO
PNGTRAINING - IXP and Routing workshop	Port Moresby	PG

7th EUROPOL-INTERPOL Cybercrime Conference	Hague	NL
ACM Internet Measurement Conference 2019	Amsterdam	NL
APEC TEL 60	Seoul	KR
APT PRFP-12	Tonga	TO
ARIN 44	Austin	US
CERT Samoa Planning / Discussion	Apia	WS
CERT Tonga Workshop and Engagement	Nuku'alofa	TO
DNS-OARC 31	Austin	US
ESNOG 2019	Barcelona	ES
GFCE Annual Meeting 2019	Addis Ababa	ET
GNTC Global Network Technology Conference 2019	Nanjing	CN
Information Security workshop	Yangon	MM
Introduction to SDN workshop	Colombo	LK
IPv6 Deployment workshop	Puchong	MY
	Bandar Seri Begawan	BN
IXP and Routing tutorial (webinar)	Afghanistan	AF
LACNIC 32	Panama City	PA
LKNOG 3*	Colombo	LK
Member Visits - IN	Hyderabad	IN
MNSEC 2019*	Ulaanbatar	MN
NANOG 77	Austin	US
NetHui 2019	Wellington	NZ
NetThing 2019*	Sydney	AU
Network Monitoring and Packet Analysis	Honiara	SB
PACTRAINING - Community Consultation 1	Honiara	SB
PNGTRAINING - Advanced Routing	Port Moresby	PG
PNGTRAINING - Coordination meeting - Brisbane - Australia	Brisbane	AU
PNGTRAINING - Routing	Lae	PG
RIPE 79	Rotterdam	NL
SICW 2019	Singapore	SG
The 50th AI3 & SOI Asia Joint Meeting (2019 FALL)	Tokyo	JP
World Internet Conference (Wuzhen Summit)	Wuzhen	CN

APCEN Workshop	Hanoi	VN
bdIGF 2019*	Dhaka	BD
BICSI Japan 2019 Conference	Tokyo	JP
CERNET (China Education and Research Network) 26th Annual Conference 2019	Hangzhou	CN
Cyber Safety Pasifika - Tier 2	Apia	WS
FIRST Data Breach Workshop	Nadi	FJ
Foundation Meeting - Mumbai	Mumbai	IN
Foundation Meeting - Singapore	Singapore	SG
ICANN 66	Montréal	CA
IDNIC AMM 2019	Bandung	ID
IETF 106	Singapore	SG
IGF 2019	Berlin	DE
India Internet Week	Kolkata	IN
inSIG 2019*	Kolkata	IN
IPv6 Deployment, ICT in DRRM and Smart Cities Conference	Hanoi	VN
IPv6 Deployment workshop	Hangzhou	CN
Japan Internet Week 2019*	Tokyo	JP
JBIX Peering Forum 2019	Kuala Lumpur	MY
KHNOG 2019*	Phnom Penh	KH
Member Visit - Mumbai	Mumbai	IN
NRO CFO Meeting	Punte del Este	UY
NZITF 2019 Conference	Wellington	NZ
PACTRAINING - Community Consultation 2	Nuku'alofa	TO
Peering Asia 3.0*	Kuala Lumpur	KL
PNGTRAINING WS 14 - DNS & DNSSEC	Port Moresby	PG
Securing Internet Routing Tutorial	Melbourne	AU
Working Group on Big Data, UN Forum	Canberra	AU

33rd TWNIC IP OPM	Taipei	TW
AFRINIC 31	Luanda	AO
Buffer Workshop	San Francisco	US
DragonCon 2019*	Hong Kong	HK
Expert Working Group Meeting on IXP for the Pacific	Suva	FJ
Information Security workshop	Yangon	MM
JICA ASEAN CSIRT Workshop	Jakarta	ID
KISMET (Internet Topology Structure) workshop	San Diego	US
Marshall Center Program on Cyber Security Studies (PCSS)	Garmisch-Partenkirchen	DE
npNOG 5*	Kathmandu	NP
PacNOG 25	Suva	FJ
PACTRAINING - Community Consultation 3	Suva	FJ
PACTRAINING - Community Consultation 4	Port Vila	VU
Routing Security workshop	Taipei	TW
TWNOG 4.0*	Taipei	TW

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APNIC

addressing the Internet in the Asia Pacific

2020

Activity Plan and Budget

Contents

Introduction

This document explains APNIC's 2020 Activity Plan and Budget, for the information of APNIC Members and the wider community. It is structured according to the new Four Year Strategic Plan (2020-2023), adopted by the APNIC Executive Council (EC) on 3 December 2019.

Under the previous Four Year Strategic Direction (2016-2019), APNIC's activities were structured under four main areas:

- Serving Members
- Regional Development
- Global Cooperaton
- Corporate

Under the new Four Year Strategic Plan (2020-2023), the structure moves from this largely geographic/audience-based classification to a new activity structure based on the type of work being executed.

These new areas or "pillars" are:

| Membership | Registry | Development | Information | Capability |

Activities in the new Strategic Plan are defined for the purposes of planning, budgeting and reporting – and categorized into 18 workstreams under the five strategic pillars, aligned with APNIC's vision and mission (see page 5).

The 2020 Activity Plan and Budget describes activities according to the same structure; and provides under each workstream, the activities that are planned for 2020, along with budget allocations.

Feedback on the 2020 Activity Plan and Budget is welcome. If you would like to comment, please contact the APNIC EC.

Annual Planning Process

The APNIC EC and Secretariat receive input from the community through the biennial survey (apnic.net/survey), APNIC conferences, and other interactions. These inputs guide APNIC's strategy and annual planning, and the Secretariat reports progress on its activities back to the community during the year.

APNIC Community

APNIC Survey & Community Input

PLANNING

Four Year Strategy
Annual Activity Plan & Budget

Reporting to Community

REPORTING

AGM + AMM
Secretariat Reports
Survey Response Tracker
Blog updates
Annual Report
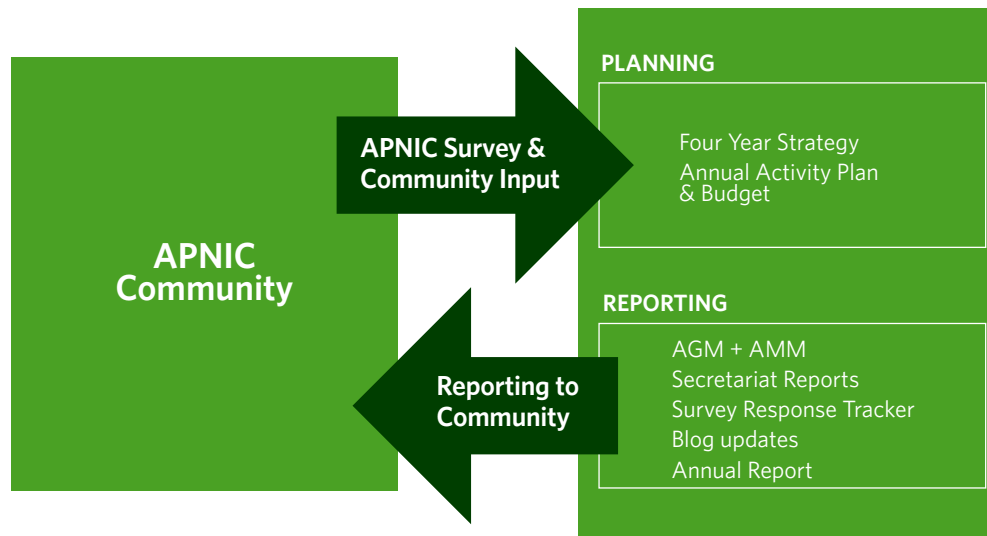
APNIC Workstreams

The Four Year Strategic Plan (2020-2023) defines 18 workstreams, across five pillars, as follows. Each workstream includes a number of activities that are described in this plan.

1. MEMBERSHIP

1A. MEMBER SERVICES
Deliver excellence in service and value to Members through active and quality engagement.

1B. MEMBERSHIP PRODUCTS
Apply best practice in development of membership products that meet Members' needs and exceed their expectations.

1C. MEMBERSHIP REPORTING
Ensure that APNIC remains fully accountable to its Members, by providing timely and accurate information about APNIC operations.

2. REGISTRY

2A. REGISTRATION SERVICES
Provide delegation and registration services for Internet numbers (ASNs, IPv4, IPv6) according to community developed policies.

2B. REGISTRY PRODUCTS
Maintain an accurate number registry and reliable registry services.

2C. POLICY DEVELOPMENT
Facilitate the open Policy Development Process to ensure resource policies in the APNIC region are developed and implemented in a neutral manner consistent with agreed rules and community expectations.

3. DEVELOPMENT

3A. APNIC CONFERENCES
Deliver engaging and relevant APNIC conferences for learning, sharing ideas and experience, professional networking, and Internet policy development.

3B. FOUNDATION SUPPORT
Provide financial and operational support to ensure the success of the APNIC Foundation.

3C. COMMUNITY ENGAGEMENT
Build and maintain close and meaningful relationships between APNIC and its various communities.

3D. COMMUNITY PARTICIPATION
Encourage awareness, diversity, participation, and leadership in APNIC processes, events, and activities.

3E. APNIC ACADEMY
Scale up training and technical assistance infrastructure with high-quality training content and curriculum.

3F. INTERNET INFRASTRUCTURE SUPPORT
Promote and support the deployment of critical Internet infrastructure and deploy tools for operational infrastructure monitoring.

4. INFORMATION

4A. INFORMATION PRODUCTS
Provide meaningful information services to the communities APNIC serves.

4B. RESEARCH AND ANALYSIS
Analyse the pressures shaping the evolution and future demands of Internet names and numbers infrastructure, and their impacts.

5. CAPABILITY

5A. INTERNAL TECHNICAL INFRASTRUCTURE
Provide stable and secure technical infrastructure to support APNIC operations and services.

5B. FINANCE AND BUSINESS SERVICES
Provide efficient and robust finance and business services and facilities to effectively support APNIC's operations.

5C. EMPLOYEE EXPERIENCE
Attract, develop and retain talented, service-oriented people to deliver APNIC's mission and exceed organization and community expectations.

5D. GOVERNANCE
Provide the legal, economic and governance framework and professional services to support APNIC's operations to minimize risk and ensure compliance and continuity.

2020 Activity Summary

ACTIVITY SUMMARY

The introduction of the new workstreams and pillars of the new Four Year Strategic Plan (2020-2023) means that some activities previously categorized and reported in one area (or pillar) have now moved to another. As a result, the annual budget has been restructured to reflect the new activity distribution.

The following table and chart provide a breakdown of APNIC's 2020 budget under this new structure.
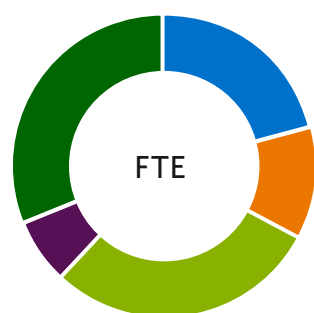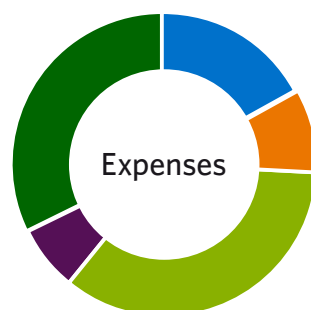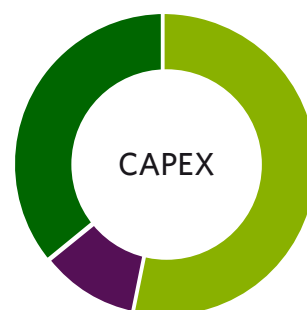
FTE	Expenses	CAPEX
82.0	24,293,022 (AUD)	738,600 (AUD)

Strategic Pillar	FTE		Expenses (AUD)		CAPEX (AUD)	
1 Membership	17.55	21%	4,222,795	17%	-	-
2 Registry	9.85	12%	2,111,516	9%	-	-
3 Development	23.55	29%	8,622,717	35%	396,000	54%
4 Information	5.75	7%	1,643,653	7%	80,000	11%
5 Capability	25.30	31%	7,692,341	32%	262,600	36%
Grand Total	82.00	100%	24,293,022	100%	738,600	100%

Membership

Registry

Development

Information

Capability

6

2020 Budget Expense Distribution

Category	Activities
1. MEMBERSHIP	Member Services · Membership Products · Membership Reporting
2. REGISTRY	Registration Services · Registry Products · Policy Development
3. DEVELOPMENT	APNIC Conferences · Foundation Support · Community Engagement · Community Participation · APNIC Academy · Internet Infrastructure Support
4. INFORMATION	Information Products · Research and Analysis
5. CAPABILITY	Internal Technical Infrastructure · Finance and Business Services · Employee Experience · Governance

Millions (AUD)

0 1 2 3 4 5 6 7 8 9

NOTES ON THE ACTIVITIES

APNIC's activities are reported in this document under the 18 workstreams and five pillars described in the previous section:

Membership	Registry	Development	Information	Capability

The activities are described as either 'Operations' or 'Investments'.

'Operations' includes all ongoing activities required for continued provision of APNIC services.
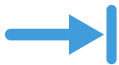
'Investments' are discrete project activities that result in new products, services, or improvements to APNIC services.

A table summarizes the resources (financial and human) needed to successfully complete the operations and investments in each workstream.

All monetary figures quoted are in Australian Dollars (AUD).

	(1) FTE	(2) Expenses	(3) CAPEX
Workstream total	1.10	1,324,458	395,000
Operations	0.20	1,147,451	275,000
Investments	0.90	177,008	120,000

(1) FTE: The number of Full-Time Equivalent employees required for the activity. In all cases FTE figures comprise contributions from multiple employees. For example – an FTE of 1.6 may be made up of four employees who each contribute 40% of their time (0.4 FTE), for a period of one year. The detailed account of these allocations is provided in section 4.2, FTE Distribution.

(2) Expenses: Refers to all operational costs directly incurred by the activity (in AUD).

(3) CAPEX: Provides the provision for capital expenditure required by the activity (in AUD).

1. MEMBERSHIP

WORKSTREAMS

A. Member Services
B. Membership Products
C. Membership Reporting

1A. **Member Services**

OPERATIONS

1. Member Services ↻

Ongoing service to Members in relation to APNIC products and services. In 2019, APNIC handled a quarterly average of more than 7,000 Member requests, 870 online chat sessions, and processed more than 16,000 Member invoices and receipts. An increased workload is expected in 2020.

2. Member Experience ↻

Capture and analysis of Member feedback on APNIC products and services, for quality control and continuous improvement.

3. Membership Development ↻

Ensure that those organizations that may need APNIC products and services can discover and access them.

4. APNIC Survey ↻

Conduct the biennial APNIC Member and stakeholder survey, due to be held again in 2020.

	FTE	Expenses	CAPEX
Workstream total	9.8	2,461,629	-
Operations	9.8	2,461,629	-
Investments	-	-	-

1A. **Member Services** – continued

Success Measures ◉

- Maintain Helpdesk SLA of 48-hour business day response to enquiries.
- Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback, and less than 5% "poor and below average" feedback.
- Total number of Members at end of 2020 to match or exceed the 2020 budget assumption of 8,262.
- Member outreach activities in 90% of economies with APNIC Members.
- Baseline measurement of membership data currency and accuracy established.
- Successful completion of the APNIC Survey 2020, with at least 10% more respondents.
- APNIC Survey follow-up actions monitoring page updated.

1B. **Membership Products**

OPERATIONS

1. Membership Product Management

Operation, development and maintenance of APNIC membership products, including MyAPNIC, and online forms.

Success Measures

- Creation of baseline metrics, segmentation and categorization of RT tickets.
- Identification and analysis of online features with high latency; issues solved where possible.
- Created a baseline measurement of "mean time to deploy".

	FTE	Expenses	CAPEX
Workstream total	7.15	1,127,922	-
Operations	4.80	763,450	-
Investments	2.35	364,472	-

1B. **Membership Products** – continued

INVESTMENTS

	Objectives	Benefits to Members
Online Community Platform →⊣		
Prototype a collaboration platform available on all APNIC products for network operators to share knowledge and experience.	Identify and implement a common platform to serve APNIC's community collaboration needs Configure and populate the platform with related FAQ and knowledge base information	Network operators can learn from each other's experience and save time researching multiple sources Allows network operators to find answers to common questions and issues quickly
Election System →⊣		
As directed by the APNIC EC, upgrade the current election system to make use of an external, auditable voting platform (BigPulse).	Introduce independent third-party voting platform Eliminate paper forms used for proxy assignment and voting	Improved user experience for voting and elections Improved trust and auditability of APNIC elections

1C. Membership Reporting

OPERATIONS

1. Planning and Reporting

Develop and publish APNIC's 2020 Activity Plan and Budget, Four Year Strategy document, 2019 Annual Report, and other reports to the community at events, as part of APNIC's commitment to transparency and accountability.

Success Measures

- On-time publishing of required reports at the APNIC AGM and at APNIC 50.
- Publishing of EC Minutes within two months of each EC meeting.
- Event Wraps published for 100% of reportable events within one month of event.

	FTE	Expenses	CAPEX
Workstream total	0.60	633,244	-
Operations	0.60	633,244	-
Investments	-	-	-

2. REGISTRY

WORKSTREAMS

A. Registration Services
B. Registry Products
C. Policy Development

2A. **Registration Services**

OPERATIONS

1. IPv4, IPv6 and ASN delegation and registration services ↻

Provide delegation and registration services for Internet numbers according to current policies. In 2019, APNIC processed 5,400 resource delegations and transfer requests. It is assumed that this activity will continue at a similar level in 2020.

2. Resource Quality Check (RQC) ↻

Provide a service and tools to check the "quality" of resources delegated by APNIC, with respect to routing status, whois and IRR registration, geolocation status, blacklisting and other measures.

3. Maintain correct and current registry data ↻

Encourage Members to improve and maintain accuracy and currency of number resource registration records.

4. Reclaiming unused IPv4 address space ↻

Identify and contact holders of unused IPv4 address space to encourage the return or transfer of unused resources; provide a listing service for Members holding resources available for transfer.

	FTE	Expenses	CAPEX
Workstream total	3.70	645,389	-
Operations	3.70	645,389	-
Investments	-	-	-

2A. **Registration Services** – continued

Success Measures ⊙

- Maintain Helpdesk SLA of 48-hour business day response to enquiries.
- Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback, and less than 5% "poor and below average" feedback.
- Percentage of Members holding IPv6 address space increased to 65%.
- Measurement system for APNIC RQC service implemented.
- A method to measure whois contact accuracy and currency established.
- Attempt contact with all (2,800+) identified resource holders with potentially unused IPv4 addresses, to offer options for return or transfer of resources.

2B. **Registry Products**

OPERATIONS

1. Internet Number Registry Management ↻

Operate and manage the Internet number registry, identify areas for improvement and development, and implement changes according to needs and priorities.

2. Registry Product Management ↻

Operate, develop and maintain APNIC Registry products including whois, RDAP, RPKI, RDNS and IRR.

Success Measures ◎

- Successful implementation of pool service changes for historical record amendment.
- Seven product development engagements at APNIC conferences.
- RDAP service deployed to the cloud in two regions.
- Fifteen user experience interviews for registry products at APRICOT and IETF meetings.
- RPKI Certification Practice Statement review completed.

	FTE	Expenses	CAPEX
Workstream total	5.30	825,807	-
Operations	4.30	672,710	-
Investments	1.00	153,097	-

2B. **Registry Products** – continued

INVESTMENTS

	Objectives	Benefits to Members

RPKI AS0 ROA ➙|

| **Implement publication of AS0 ROA in accordance with prop-132.** | Complete proposed implementation plan, and report at APNIC 49

Redesign of internal (ARMS) tools and deploy service during 2020, with updates provided at APNIC 50 | Implementation of agreed mechanism to help avoid address hijacking and other "bogons" |

2C. Policy Development

OPERATIONS

1. Policy Development

Facilitate the open Policy Development Process (PDP) to ensure that resource policies in the APNIC region are developed in manner consistent with agreed rules and community expectations. This activity includes support for:

- Policy Special Interest Group (SIG) meetings (twice per year) and mailing lists.
- Exchange of policy-related information with other RIRs.
- Support of ASO Address Council Members from the APNIC region.

2. Policy Implementation

Implement community-approved policies in a timely and effective manner.

3. Policy Analysis

Analyse the impact of policy proposals and inform the community accordingly; identify areas of policy or registry operations where policies may be required, or existing policies clarified by the community; and articulate in policy discussions as appropriate.

	FTE	Expenses	CAPEX
Workstream total	0.85	640,320	-
Operations	0.85	620,320	-
Investments	-	20,000	-

2C. **Policy Development** - continued

Success Measures ◉

- Two Policy SIG meetings held.
- Delivery of two policy analysis presentations at SIG meetings.
- High satisfaction rating from Policy Chairs in annual review of policy support.
- Meeting agreed implementation timelines 100% of the time.
- Publishing of a policy proposals analysis before each Policy SIG meeting.
- Achieve a service quality rating of 5.75 or above for Policy Development in the APNIC Survey.

2C. **Policy Development** - continued

INVESTMENTS

	Objectives	Benefits to Members
Policy Documentation Review ➝		
Editorial review and potential restructure of APNIC policy documentation, including policies and guidelines and related supporting documents.	Review APNIC policy documentation to improve clarity and readability, and identify any areas needing additional community input	Improved policy documentation that is easier to use and understand

3. DEVELOPMENT

WORKSTREAMS

A. APNIC Conferences

B. Foundation Support

C. Community Engagement

D. Community Participation

E. APNIC Academy

F. Infrastructure Support

3A. **APNIC Conferences**

OPERATIONS

1. APNIC Conferences ⟳

Deliver well-organized, high-quality events for the APNIC community with consistently interesting and relevant program content.

- APRICOT 2020 will be held in Melbourne, Australia (12 – 21 February 2020).
- APNIC 50 will be held in Dhaka, Bangladesh (3 – 10 September 2020).

Success Measures ◉

- Delivery of two conferences (in Oceania and South Asia).
- Achieve attendance of 1,000 delegates.
- Achieve 1,000 remote conference session views.
- Achieve a minimum average conference participant satisfaction survey rating of 90%.
- Achieve a service quality rating of 6.0 or above for APNIC Conferences in the APNIC Survey.

	FTE	Expenses	CAPEX
Workstream total	4.60	1,405,301	1,000
Operations	4.50	1,319,912	1,000
Investments	0.10	85,389	-

3A. **APNIC Conferences** - continued

INVESTMENTS

	Objectives	Benefits to Members
Fellowships →|		
Support participation in APNIC conferences and workshops, including "returning" and "youth" fellowships, with a continued focus on diversity.	Provide support for selected community members from the region's developing economies to attend and participate in APNIC conferences Bolster investment by attracting community sponsorship to expand number of fellowships offered	Opportunities for more Members to attend APNIC conferences Diversity of participation in APNIC conferences

3B. Foundation Support

INVESTMENTS

	Objectives	Benefits to Members

Operational and Administrative Support →|

Provide support for Foundation operations and administration, according to APNIC standards and underwritten by APNIC in accordance with the AoC of 2018: **- Two full time staff seconded to the Foundation** **- A total of one FTE equivalent in operational support** **- Office space, equipment and online systems support as required**	Provide support required for smooth and reliable Foundation operations	A well-run Foundation to deliver increased funding for development projects in the APNIC region

	FTE	Expenses	CAPEX
Workstream total	1.15	865,463	-
Operations	-	-	-
Investments	1.15	865,463	-

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3B. **Foundation Support** – continued

INVESTMENTS

	Objectives	Benefits to Members
ISIF Asia Contribution →⊢		
Provide an annual contribution of AUD 100,000 to the ISIF Asia grants , (including network operations research grants), and staff participation in grant selection process.	Encourage Internet innovation and network operations research in the Asia Pacific	Recognition and funding of innovative Internet projects that benefit the community Research projects that help inform Members' decisions around Internet operations

3C. Community Engagement

OPERATIONS

1. Technical Community Support

Sponsor and participate in NOGs, IXPs, Peering Forums; and Research & Education activities.

2. Security Community Support

Work with security organizations such as APCERT, FIRST, and local CERTs/CSIRTs; support the development of CERT/CSIRTs, and best cybersecurity practices.

3. Internet Organization Cooperation

Play a responsible role in the global Internet ecosystem through active collaboration with other Internet organizations.

4. Internet Governance Participation

Strengthen global Internet Governance by continued support for the IGF and related events at a regional and national level.

5. Government Engagement

Participate in inter-governmental forums such as ITU, APT and APEC TEL, and engage with relevant government agencies in the region, advocating for APNIC's vision and mission, technical capacity building and adoption of best practices.

	FTE	Expenses	CAPEX
Workstream total	7.15	2,493,689	-
Operations	7.15	2,493,689	-
Investments	-	-	-

3C. **Community Engagement** – continued

Success Measures ⊙

- Sponsor or participate in 30 technical community events including NOGs, Peering Forums and Research & Education community events.
- Facilitate and support two new/revived NOGs.
- Sponsor or participate in 10 security community events.
- Support targeted development of three new/existing CERTs/CSIRTs.
- Ensure APNIC participation in each of the RIR meetings.
- Provide APrIGF sponsorship and participate in APrIGF and IGF with workshop proposals, MSG/MAG participation, and speaking roles.
- Participate in at least three national Internet governance initiatives.
- Provide sponsorship/speaker support to at least two schools of Internet governance.
- At least 12 engagements with governments and intergovernmental organizations, including capacity-building partnerships.
- At least six engagements with the Public Safety Community.

3D. **Community Participation**

OPERATIONS

1. Community-led Processes

Increase awareness of, and continuing participation in, community-led APNIC processes including the PDP, SIG (Policy, Cooperation, NIR, Routing Security), and BOFs. Both online and face-to-face participation is encouraged.

2. Online Participation

Use online tools to increase awareness and facilitate participation in APNIC services and initiatives available to benefit APNIC Members and the wider community.

3. Encouraging Newcomers

Encourage new and continuing participants in the APNIC community – both online and face-to-face – particularly the next generation of network engineers.

	FTE	Expenses	CAPEX
Workstream total	1.10	203,283	-
Operations	0.90	165,304	-
Investments	0.20	37,979	-

3D. **Community Participation** - continued

Success Measures ⊙

- Attract 300 in-person participants at SIG sessions.
- Achieve 800 online SIG participants.
- Reach 1,250 subscribers to SIG mailing lists.
- Reach 2.4 million blog views (all-time).
- Achieve 1,000 remote conference session views.
- Achieve attendance of 1,000 conference delegates.
- Reach 11,900 Twitter followers.
- Achieve Facebook reach of 2 million.
- Attract 400 newcomers to APNIC conferences.
- Attract 75 new blog email subscribers.

3D. **Community Participation** - continued

INVESTMENTS

	Objectives	Benefits to Members

Community Diversity ➞|

| **Monitor and improve diversity (including gender, age, language and dis/abilities) of community participation in APNIC events and activities.** | Gather demographics of conferences and other APNIC activities

Support increased diversity through APNIC fellowship, conference and community activities

Review the APNIC website to identify translation opportunities and accessibility improvements | Understanding of the diversity of participants in the APNIC community

Greater diversity of community participation in APNIC activities |

3E. APNIC Academy

OPERATIONS

1. Curriculum Development

Develop of online and face-to-face courses to increase quality, scope, acceptance and recognition of APNIC Academy training. IPv6 deployment courses will be expanded in 2020.

2. Face-to-Face Training

Deliver face-to-face training around the APNIC region to increase knowledge and skills in the community.

3. Online Training

Deliver online technical training to increase knowledge and skills in the APNIC community via the APNIC Academy platform.

4. Community Trainers

Recruit and develop Community Trainers to expand the scope and quality of APNIC Academy training.

5. Technical Assistance

Respond where possible to requests from Members for technical assistance, both online via the APNIC Academy platform and face-to-face, on a cost-recovery basis.

	FTE	Expenses	CAPEX
Workstream total	8.45	2,330,523	-
Operations	5.75	1,729,064	-
Investments	2.70	601,459	-

3E. **APNIC Academy** - continued

6. RPKI Awareness and Deployment Support ⟳

Increase adoption of RPKI and routing security through training, technical assistance, presentations at relevant events, online information, and encouraging deployment of RPKI ROV in IXPs.

7. IPv6 Awareness and Deployment Support ⟳

Encourage deployment of IPv6 through training and technical assistance, and sharing of IPv6 best practices, information resources and case studies.

Success Measures ◉

- Add Bengali language to APNIC Academy online platform.
- Convert three old online training courses to a new video-based format.
- Develop new training content (labs, modules or courses) in the areas of IPv6, Internet Routing, Network Security, SDN & Automation, Network Management & Monitoring and Linux System Administration.
- Conduct 60+ face-to-face trainings equitably across four sub-regions.
- Recruit and maintain a pool of 25 qualified Community Trainers from four sub-regions.
- Start conducting structured technical assistance over APNIC Academy online platform.
- Publish four IPv6 deployment case studies.

3E. **APNIC Academy** - continued

INVESTMENTS

	Objectives	Benefits to Members

APNIC Academy Development ➔|

| **Develop APNIC Academy as a cohesive learning environment integrating blended face-to-face and online training services.** | Integrate various training systems (eg: registration, calendar and training wiki) into APNIC Academy

Establish an online technical assistance platform that connects Members with experts in the Internet community

Increase multilingual support by adding more languages to more courses, and engaging community reviewers

Develop a new digital badging and recognition system | Improved access to APNIC's training offerings and technical assistance

Improved experience and satisfaction with training services across all skill levels

Greater access to training in more economies with language barriers. |

3F. Internet Infrastructure Support

OPERATIONS

1. Internet Infrastructure Deployment

Support the deployment and management of IXPs and DNS anycast rootservers and ROV support (as a package), and deployment of anchors and probes for the RIPE Atlas program.

2. Honeynet Deployment

Maintain and grow the APNIC Community Honeynet to help network operators understand online adversaries.

Success Measures

● Support deployment of at least two new or upgraded IXPs.
● Support deployment of at least six new root server instances at IXPs or other networks.
● Support at least six IXPs to deploy RPKI on their route servers.
● Deploy at least four RIPE Atlas anchors at various networks.
● Establish five new Community Honeynet partners.

	FTE	Expenses	CAPEX
Workstream total	1.10	1,324,458	395,000
Operations	0.20	1,147,451	275,000
Investments	0.90	177,008	120,000

3F. **Internet Infrastructure Support** - continued

INVESTMENTS

	Objectives	Benefits to Members

M-Root Anycast Instance Deployment Support ➙⊦

Implement new partnership with the WIDE Project and JPRS to improve the anycast deployment of M-root.	Help streamline M-root deployment and operations by improving process and automation	Faster and more reliable DNS service Faster and easier deployment of root DNS anycast instances at desirable or underserved locations

Security Threat Sharing Platform ➙⊦

Extend the APNIC Community Honeynet as a platform for APNIC Members to share cybersecurity threat information so they can take necessary action.	Create platform for APNIC Members to share threat information and develop a trusted community culture Encourage development of analysis and incident response capabilities among Members	Access to actionable threat information to help protect infrastructure and customers Increased situational awareness on cybersecurity threats

4. INFORMATION

WORKSTREAMS

A. Information Products
B. Research and Analysis

4A. Information Products

OPERATIONS

1. APNIC Blog

Maintain the APNIC Blog's position as the Internet operations community's leading daily news and opinion portal in the Asia Pacific and beyond.

2. Information Product Management

Operate, develop and maintain APNIC information products including the Internet Directory, NetOX and DASH to improve value, ease of use, availability and performance for the APNIC community.

Success Measures

- Reach 2.4 million blog views (all-time).
- Average 48,000 blog views per month.
- Maintain blog Guest Post ratio between 45 to 50%.
- Achieve a net promoter score higher than 70 for the Internet Directory, NetOX and DASH.
- Achieve a usability score of at least 4.5 (out of 5) for the Internet Directory, NetOX and DASH.
- Achieve at least 30% returning users to the Internet Directory, NetOX and DASH.
- Interview at least eight Members per product during the year.

	FTE	Expenses	CAPEX
Workstream total	4.90	794,498	-
Operations	4.90	794,498	-
Investments	-	-	-

4B. **Research and Analysis**

OPERATIONS

1. Conducting research and measurements ↻

Conduct research experiments on topics including IP addressing, routing, DNS and other critical Internet infrastructure matters.

2. Sharing Research Outcomes ↻

Share research insights online and at selected events to raise awareness of issues and trends that may impact Internet operations and assist policy discussions.

3. Cooperative Research Opportunities ↻

Engage in research partnerships with other reputable organizations.

Success Measures ◉

- Twelve research articles and reports published.
- Ten research presentations delivered.
- Two presentations to Policy SIG meetings.

	FTE	Expenses	CAPEX
Workstream total	0.85	849,155	80,000
Operations	0.85	849,155	80,000
Investments	-	-	-

5. CAPABILITY

WORKSTREAMS

A. Internal Technical Infrastructure

B. Finance and Business Services

C. Employee Experience

D. Governance

5A. **Internal Technical Infrastructure**

OPERATIONS

1. Information Architecture and Management ⟳

Manage and improve APNIC's information architecture and governance for better integration and coordination of systems and business processes.

2. Network and Infrastructure Operations ⟳

Manage APNIC data centre presence in the region, interconnections between the APNIC network and peer/upstream networks, appropriate peering relationships, and maintain a 24x7 Incident Response Team.

3. System and Platform Operations ⟳

Migrate services to virtualized and 'cloud' infrastructure to improve online service performance; manage IT assets including maintenance, depreciation, and licensing associated with APNIC systems. In 2020, Wordpress services will be migrated and multi-region RDAP will be enabled.

4. CSIRT Operations ⟳

Maintain a CSIRT to strengthen security incident response and management within APNIC (relating to APNIC systems and services).

5. Enterprise Application Management ⟳

Manage and improve enterprise applications supporting APNIC operations.

	FTE	Expenses	CAPEX
Workstream total	13.10	3,140,201	207,600
Operations	12.60	2,965,752	207,600
Investments	0.50	174,449	-

5A. **Internal Technical Infrastructure** - continued

Success Measures ◉

- Develop dependency management framework using APIs to map system dependencies .
- Availability of 99.95% for critical APNIC services and 99.9% for non-critical APNIC services.
- Annual stocktake and audit of all IT hardware completed.
- Begin investigation and notify senior management within two hours of on-call notification and achieve containment within four hours for any critical incident.
- All EC, Community trainers, and APNIC staff credentials managed under OKTA.
- Roadmap completed for removal of legacy data systems.

5A. **Internal Technical Infrastructure** - continued

INVESTMENTS

	Objectives	Benefits to Members
Network Presence at Asia Pacific Internet Hubs ➞⊣		
Improve service performance with better network presence and interconnection in the region.	Review options for improving performance of APNIC services by direct peering at co-located Internet hub locations Make deployment of APNIC's online services more effective	Fast and reliable access to APNIC's online services

5B. **Finance and Business Services**

OPERATIONS

1. Knowledge Management

Maintain effective methods, structures and tools to retain and retrieve corporate information within APNIC.

2. Financial Services

Undertake transparent and efficient management and reporting of APNIC's financial affairs. In 2020, APNIC's finance team is expected to issue and pay in excess of 14,000 invoices, process 1,000 journals, settle over 1,700 expense claims, and reconcile more than 4,000 credit card transactions. The existing financial reporting tool will also be replaced to improve forecasting and monthly financial reporting.

3. Business Services

Effectively manage office facilities, administration and travel, and maintain APNIC's adherence to the ISO 9001 quality management system. Continue to undertake regular scenario testing of its Business Continuity Plan (BCP) within the risk management framework.

Success Measures

- Knowledge management tools identified, and implementation project plan developed.
- Successful audit of APNIC's annual financial accounts.
- Successful completion of annual ISO quality management compliance audit.
- Successful implementation of the new PBCS financial reporting tool and framework.
- Quarterly BCP scenario testing undertaken.

	FTE	Expenses	CAPEX
Workstream total	8.20	1,999,137	55,000
Operations	6.70	1,749,985	55,000
Investments	1.50	249,152	-

5B. **Finance and Business Services** - continued

INVESTMENTS

	Objectives	Benefits to Members
Business Intelligence ➙ı		
Establish a comprehensive business intelligence facility that integrates data from a range of systems to produce better analysis and consistent reporting.	Deliver a data warehouse incorporating customer and registration data, providing analysable structures suitable for use with tools such as Tableau Migrate recurring reporting to the new system	Improved Secretariat decision-making and easier access to structured information for service requests Improved reporting to APNIC EC and Members

5C. **Employee Experience**

OPERATIONS

1. Organizational Development

Optimise organizational structure for the achievement of Member-focused objectives, with clear lines of accountability. In 2020, the focus will be on communicating the new Strategic Direction, and a revamp of APNIC's performance management approach.

2. Physical Work Environment Management

Ensure all places of work for APNIC staff (both the office and remote locations) are fit for purpose, and safe.

3. Talent Attraction and Retention

Recruit and onboard staff to fill vacancies, and provide all staff with opportunities to develop skills to meet business requirements and aid retention. In 2020, leadership development and enhanced learning will be focus areas.

4. Policies and Benefits Management

Aim to provide policies and benefits that meet current best practice for market competitiveness and employee retention. Implement a new HR system for managing employment, leave, development, performance and benefits.

	FTE	Expenses	CAPEX
Workstream total	2.45	1,692,464	-
Operations	2.30	1,547,217	-
Investments	0.15	145,247	-

5C. **Employee Experience** - continued

Success Measures ◉

- Strategic goals clearly cascade to individual performance measures in 2020 annual reviews.
- Risk management data demonstrating any WHS incidents are not caused by APNIC's local or remote work environments.
- Building surveillance system upgraded.
- Staff turnover rate is within acceptable benchmarks of between 5% and 15%.
- Professional development budget is fully spent, and addresses needs identified in performance reviews wherever possible.
- Identify workplace policies that are not aligned with best practice in Australia and provide recommendations for 2021 budget.

5C. **Employee Experience** - continued

INVESTMENTS

	Objectives	Benefits to Members
Product Management ➞❙		
Establish two new product teams with existing staff, and continue to introduce APNIC's product management framework to other areas of the organization.	Establish product teams for the APNIC Academy online platform and enterprise applications Provide training and coaching for product managers and teams	Development and management of products and services that are validated with the needs of Members and the community

5D. **Governance**

OPERATIONS

1. Executive Council (EC) Support

Facilitate impartial EC election processes of the highest integrity, in line with the APNIC By-laws and Member expectations, and support EC members to perform their roles.

2. Corporate Governance and Legal

Mitigate legal risk in all APNIC activities through timely legal advice, contract management, corporate governance guidance, organizational risk management and legal cooperation with other organizations.

Success Measures

● Revised Strategic Risk Register fully implemented.

	FTE	Expenses	CAPEX
Workstream total	1.55	860,539	-
Operations	1.55	860,539	-
Investments	-	-	-

Budget Summary

Strategic Pillar	FTE	%	Expenses (AUD)	%	CAPEX (AUD)	%
Membership						
Member Services	9.80	12%	2,461,629	10%	-	-
Membership Products	7.15	9%	1,127,922	5%	-	-
Membership Reporting	0.60	1%	633,244	3%	-	-
Total	**17.55**	**21%**	**4,222,795**	**17%**	**-**	**-**
Registry						
Registration Services	3.70	5%	645,389	3%	-	-
Registry Products	5.30	6%	825,807	3%	-	-
Policy Development	0.85	1%	640,320	3%	-	-
Total	**9.85**	**12%**	**2,111,516**	**9%**	**-**	**-**
Development						
APNIC Conferences	4.60	6%	1,405,301	6%	1,000	0%
Foundation Support	1.15	1%	865,463	4%	-	-
Community Engagement	7.15	9%	2,493,689	10%	-	-
Community Participation	1.10	1%	203,283	1%	-	-
APNIC Academy	8.45	10%	2,330,523	10%	-	-
Internet Infrastructure Support	1.10	1%	1,324,458	5%	395,000	53%
Total	**23.55**	**29%**	**8,622,717**	**35%**	**396,000**	**54%**
Information						
Information Products	4.90	6%	794,498	3%	-	-
Research and Analysis	0.85	1%	849,155	3%	80,000	11%
Total	**5.75**	**7%**	**1,643,653**	**7%**	**80,000**	**11%**
Capability						
Internal Technical Infrastructure	13.10	16%	3,140,201	13%	207,600	28%
Finance and Business Services	8.20	10%	1,999,137	8%	55,000	7%
Employee Experience	2.45	3%	1,692,464	7%	-	-
Governance	1.55	2%	860,539	4%	-	-
Total	**25.30**	**31%**	**7,692,341**	**32%**	**262,600**	**36%**
Total	**82.0**	**100%**	**24,293,022**	**100%**	**738,600**	**100%**

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

FTE Distribution

Strategic Pillar	Total FTE	Bus	Comms	DG	HR	I&D	Prod Dev	Srvcs	SE
Membership									
Member Services	9.80	2.50	0.10	0.60	0.10	-	0.20	6.00	0.30
Membership Products	7.15	0.30	0.20	0.10	-	0.20	5.65	0.60	0.10
Membership Reporting	0.60	-	0.40	0.20	-	-	-	-	-
Total	**17.55**	**2.80**	**0.70**	**0.90**	**0.10**	**0.20**	**5.85**	**6.60**	**0.40**
Registry									
Registration Services	3.70	-	-	0.30	0.10	-	-	3.30	-
Registry Products	5.30	-	0.10	-	-	0.10	4.50	0.60	-
Policy Development	0.85	-	0.50	0.05	-	-	-	0.30	-
Total	**9.85**	**-**	**0.60**	**0.35**	**0.10**	**0.10**	**4.50**	**4.20**	**-**
Development									
APNIC Conferences	4.60	1.00	3.00	-	-	0.10	0.50	-	-
Foundation Support	1.15	0.50	-	0.05	0.20	-	-	0.40	-
Community Engagement	7.15	-	0.60	1.50	-	1.10	1.05	0.50	2.40
Community Participation	1.10	-	1.00	-	-	0.10	-	-	-
APNIC Academy	8.45	-	-	-	0.15	7.70	0.50	0.10	-
Internet Infrastructure Support	1.10	-	-	-	-	1.10	-	-	-
Total	**23.55**	**1.50**	**4.60**	**1.55**	**0.35**	**10.10**	**2.05**	**1.00**	**2.40**
Information									
Information Products	4.90	-	2.10	-	-	-	2.60	0.20	-
Research and Analysis	0.85	-	-	0.85	-	-	-	-	-
Total	**5.75**	**-**	**2.10**	**0.85**	**-**	**-**	**2.60**	**0.20**	**-**
Capability									
Internal Technical Infrastructure	13.10	1.80	-	0.05	0.15	6.10	5.00	-	-
Finance and Business Services	8.20	8.20	-	-	-	-	-	-	-
Employee Experience	2.45	0.40	-	0.05	1.30	0.50	-	-	0.20
Governance	1.55	0.30	-	1.25	-	-	-	-	-
Total	**25.30**	**10.70**	**-**	**1.35**	**1.45**	**6.60**	**5.00**	**-**	**0.20**
Total	**82.0**	**15.00**	**8.00**	**5.00**	**2.00**	**17.00**	**20.00**	**12.00**	**3.00**

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

Investments by Workstream

Strategic Pillar	FTE	%	Expenses (AUD)	%	CAPEX (AUD)	%	Investment
Membership							
Member Services	-		-		-		
Membership Products	1.85		283,865		-		Online Community Platform
Membership Products	0.50		80,607		-		Election System
Membership Reporting	-		-		-		
Total	**2.35**	**22%**	**364,472**	**13%**		**0%**	
Registry							
Registration Services	-		-		-		
Registry Products	1.00		153,097		-		RPKI AS0 ROA
Policy Development	-		20,000		-		Policy Document review
Total	**1.00**	**9%**	**173,097**	**6%**		**0%**	
Development							
APNIC Conferences	0.10		85,389		-		Fellowships
Foundation Support	1.15		765,463		-		Operational and Administrative Support
Foundation Support	-		100,000		-		ISIF Asia Contribution
Community Engagement	-		-		-		
Community Participation	0.20		37,979		-		Community Diversity
APNIC Academy	2.70		601,459		-		APNIC Academy Development
Internet Infrastructure Support	0.70		127,228		120,000		M-Root Anycast Instance Deployment Support
Internet Infrastructure Support	0.20		49,780		-		Security Threat Sharing Platform
Total	**5.05**	**48%**	**1,767,297**	**61%**	**120,000**	**100%**	
Information							
Information Products	-		-		-		
Research and Analysis	-		-		-		
Total	**-**		**-**		**-**		
Capability							
Internal Technical Infrastructure	0.50		174,449		-		Network Presence at Asia Pacific Internet Hubs
Finance and Business Services	1.50		249,152		-		Business Intelligence
Employee Experience	0.15		145,247		-		Product Management
Governance	-		-		-		
Total	**2.15**	**20%**	**568,848**	**20%**		**0%**	
Total	**10.55**	**100%**	**2,873,714**	**100%**	**120,000**	**100%**	

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

APNIC's 2020 Budget Submission provides more details on the 2020 APNIC Budget and is available with the Minutes of the December 2019 EC meeting.

APNIC

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APNIC 49 – Annual General Meeting – Agenda (draft-v2)

Time	Topic	Speaker
AGM (1): 09:30 – 11:00		
09:30	EC Chair welcome, introductions, and opening remarks	Gaurab Raj Upadhaya
09:45	APNIC EC Election Procedures	Craig Ng
09:55	EC Election Candidate Speeches	Election Chair
10:20	APNIC Activity Report	Paul Wilson
10:50	Open mic	
AGM (2): 11:30 – 13:00		
11:30	APNIC EC Treasurer Report	Kenny Huang
11:40	APNIC EC Report	Gaurab Raj Upadhaya
11:55	Policy SIG Report	Sumon Ahmed Sabir
12:10	Open mic	
12:20	NIR SIG Report	Billy MH Cheon
12:30	Cooperation SIG Report	Joy Chan
12:40	**Routing Security/RPKI/ SIG Report	TBC
12:50	APNIC EC voting reminder	Election Chair
AGM (3): 14:30 – 16:00		
14:30	APNIC EC voting close	Election Chair
14:40	3rd APNIC Hackathon Report	Sofia / Sunny
14:50	IPv6 Deployment session Report	Kenny Huang
15:00	APIX Report	TBC
15:10	Open mic	
15:20	APNIC 50 Host Update	TBC
15:30	APNIC EC Election Results	Election Chair
15:40	Vote of Thanks	Paul Wilson
15:50	APNIC EC Closing Remarks	Gaurab Raj Upadhaya

Agenda Item 13
APNIC Foundation update

Foundation update

EC meeting
APRICOT
Melbourne
February 2020

Contents

1. Board update

2. Project update

3. New funding proposals

4. Funding table

Board update

[Confidential information redacted]

Board update (2)

[Confidential information redacted]

Project update (1)

Project: PNG training (2018-19-20) - ended

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

Economy: Papua New Guinea

Funding: USD 451,731. The largest single training and technical assistance investment in any APNIC economy.

Impact

- 21 community engagements including 18 training workshops, technical assistance and consultations.

- 383 participants received certificates of course completion.

- PNGNOG and PNGCERT established

Project update (2)

Project: Pacific technical training (2019-20)

Donor: DFAT

Economies: Fiji, Solomons, Tonga and Vanuatu

Funding: USD 336,000

Community consultations held in Solomons, Tonga, Fiji and Vanuatu. Meetings held with every APNIC member.

Impact

Technical training and assistance in the Pacific

Project update (3)

Project: RPKI deployment support for IXPs (at APRICOT)

Donor: JPNIC (first NIR to support the Foundation)

Economies: Bhutan and Myanmar - with Fiji and Vanuatu accepting invitations (Nepal, India and PNG also invited but could not attend)

Funding: Full cost recovery for APNIC plus staff costs

Impact

Accelerated RPKI deployment at IXPs

ISIF Asia

- The end of IDRC support after 12 years

- USD 1.3 million invested in APNIC region

- Supported the SEED Alliance with APNIC, LACNIC and AFRINIC and the APNIC Foundation (for one year).

- Together with APNIC: 75 grants and 28 awards, totalling USD3.52 million allocated to 103 innovative initiatives across 24 economies.

- ISIF continues this year with APNIC's support

Funding update – Being discussed

[Confidential information redacted]

Funding update – Being discussed

[Confidential information redacted]

Funding update – Being discussed

[Confidential information redacted]

Funding update – Being discussed

[Confidential information redacted]

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

Final note – bullish look ahead

- Foundation is well positioned – donors initiating contact not vice versa (JPNIC, GTZ)

- Confirmed new and diverse funding in the pipeline (starting small)

- Growing portfolio of successfully completed projects

- Successfully supporting and growing the APNIC technical community (community trainers, project managers, new opportunities for APNIC staff)

Thanks

Agenda Item 14
Strategic planning

APNIC

addressing the Internet in the Asia Pacific

2020–2023

STRATEGIC PLAN

Contents

The Future We See

VISION

A global, open, stable and secure Internet.

MISSION

To provide essential services as a Regional Internet Registry,

and to support Internet development in the Asia Pacific region.

PURPOSE

To serve our community.

IDENTITY

A not-for-profit trusted authority on Internet infrastructure.

Our Principles

VALUES

Passion

Trust

Curiosity

Accountability

Inclusion

CREDO

We are APNIC.

One team dedicated to making a positive impact.

Our ambition will be achieved by working together.

Trust and respect for each other are not negotiable.

Inclusion and diversity really matter to us.

We take pride and excel in everything we do.

We are curious. We are accountable.

We are APNIC.

WHAT
Our Strategic Pillars

1. MEMBERSHIP

Develop and deliver world-class products and services required by APNIC Members.

Engage with Members in building a global, open, stable and secure Internet.

Ensure accountable governance of APNIC as a membership organization.

2. REGISTRY

Develop and deliver world class registry products and services required by the community.

Ensure responsible stewardship of Internet number resources and deliver accurate registry services.

3. DEVELOPMENT

Invest in sustainable development of the regional Internet community, industry and infrastructure.

Build capacity for best-practice Internet operations across the Internet technical community.

4. INFORMATION

Support Internet development with needed network information services, and research outcomes which are of demonstrated value to the community.

5. CAPABILITY

Provide stable and secure technical infrastructure to support APNIC operations and services.

Develop a strong service culture driven by people committed to APNIC's vision and values.

Sustain a healthy and resilient organization.
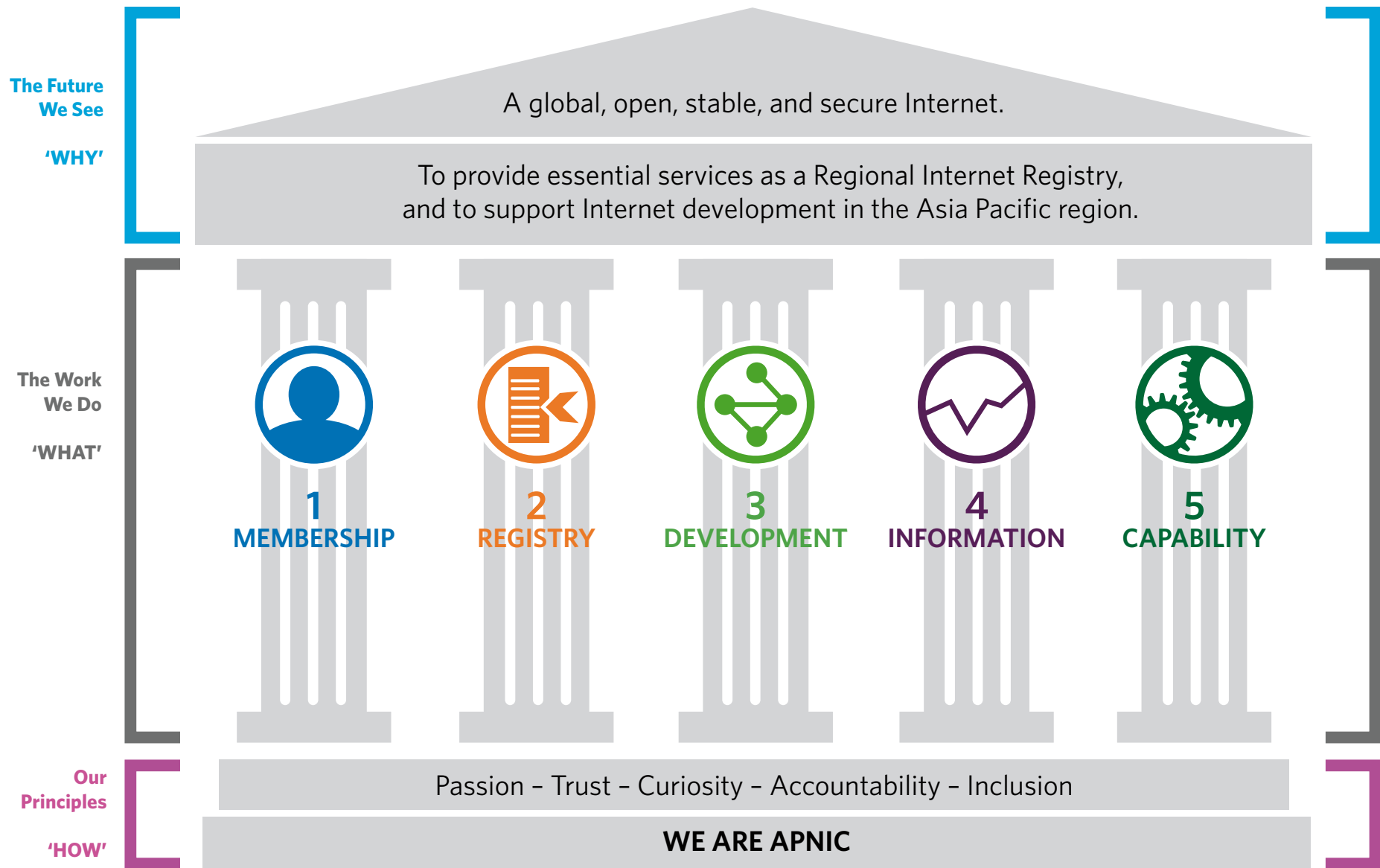
Overview

VISION
A global, open, stable, and secure Internet.

MISSION
To provide essential services as a Regional Internet Registry, and to support Internet development in the Asia Pacific region.

PURPOSE
To serve our community.

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STRATEGIC PILLAR	WORKSTREAMS
1. MEMBERSHIP	A. Member Services
	B. Membership Products
	C. Membership Reporting
2. REGISTRY	A. Registration Services
	B. Registry Products
	C. Policy Development
3. DEVELOPMENT	A. APNIC Conferences
	B. Foundation Support
	C. Community Engagement
	D. Community Participation
	E. APNIC Academy
	F. Internet Infrastructure Support
4. INFORMATION	A. Information Products
	B. Research and Analysis
5. CAPABILITY	A. Internal Technical Infrastructure
	B. Finance and Business Services
	C. Employee Experience
	D. Governance

1. MEMBERSHIP

OBJECTIVES

Deliver world-class products and services required by APNIC Members.

Engage with Members in building a global, open, stable and secure Internet.

Ensure accountable governance of APNIC as a membership organization.

WORKSTREAMS

A. Member Services

B. Membership Products

C. Membership Reporting

1A. **Member Services**

OBJECTIVE
To deliver excellence in service and value to Members through active and quality engagement.

PURPOSE
To properly serve our Members.

With the right services from APNIC, Members will contribute positively to a global, open, stable and secure Internet.

RISKS
Reduction in membership value after IPv4 depletion.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Member Services	• Deliver a seamless experience in serving member needs	• Metrics on all service channels • Member experience metrics	• SLA above 99% • Service satisfaction above 90%
	• Proactively engage with Members at events, Member gatherings, and one-on-one	• Number of interactions with Member contacts • Topic of discussion covered	• All AP economies with active Members are visited, physically or remotely
	• Ensure that Membership data is accurate and up to date	• Failure to contact Members	• Initial contact success rate above 90%
Member Experience	• Capture and analysis of Member feedback on APNIC products and services, for quality control and continuous improvement	• Feedback satisfaction metrics • Follow up actions	• Feedback satisfaction above 90%
Membership Development	• Ensure that organizations needing APNIC products and services can discover and access them	• Membership growth • Usage of APNIC services • Discoverability Metrics	• Annual Membership growth of 700/year
	• Build partnerships to provide additional local support relevant to that economy	• Number of partners • APNIC Survey	• Evidence that local needs are better served
APNIC Survey	• Undertake APNIC Survey every two years as the primary mechanism to gather information on current issues, and support strategic and operational planning	• APNIC Survey • Quantity and quality of participation	• Increased diversity and number of participants • Follow up actions taken

1B. Membership Products

OBJECTIVE

To apply best practice in development of membership products which meet Members' needs and exceed their expectations.

PURPOSE

To properly serve our Members.

With the right products and services from APNIC, Members will contribute positively to a global, open, stable and secure Internet.

RISKS

Reduction in membership value after IPv4 depletion.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Membership Product Management	● Deliver the best possible online experience to Members and the community	● Helpdesk queries ● GA metrics ● Member feedback ● Ticket resolution metrics ● Number of deployments	● Reduce number of membership-related Helpdesk queries by 50% ● Reduced time taken to process membership service requests
	● Build and maintain Membership products, including MyAPNIC, Online Forms and platforms, to improve value and performance for Members.	● Usability metrics ● User experience surveys	● Increase number of MyAPNIC users ● Improved score on usability metrics ● Reduced mean time to deployment ● Average latency for membership-related services of less than 5 seconds

1C. **Membership Reporting**

OBJECTIVE
To ensure that APNIC remains fully accountable to its Members, by providing timely and accurate information about APNIC operations.

PURPOSE
APNIC, as a membership body, is committed to transparency and accountability to Members.

RISKS
Reduction in accountability and trust.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Planning and Reporting	• Develop and publish Activity Plan and Budget, Four Year Strategy, Annual Report, and reports to the community	• Delivery of reports • Member satisfaction levels	• Annual publication at AGM • Publication of EC Minutes within 2 months of meetings • Publication of Event Wraps within 1 month of applicable events

2. REGISTRY

OBJECTIVES

Develop and deliver world class registry products and services required by the community.
Ensure responsible stewardship of Internet number resources and deliver accurate
registry services.

WORKSTREAMS

A. Registration Services
B. Registry Products
C. Policy Development

2A. Registration Services

OBJECTIVE

To provide delegation and registration services for Internet numbers (ASN, IPv4, IPv6) according to the community developed policies.

PURPOSE

APNIC is the RIR responsible for managing Internet number resources in the Asia Pacific region.

RISKS

Change to current resource management model.

Reduction in perceived value of membership.

Fraudulent application of membership and resources.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
IPv4, IPv6 and ASN Delegation and Registration Services	• Provide delegation and registration services for Internet numbers according to the current policies	• Annual satisfactory policy compliance audits • Member feedback	• SLA of 99% • Service satisfaction of 90% • 80% of Members hold IPv6 address space
Resource Quality Check (RQC)	• Provide a service and tools to check the "quality" of delegated resources, with respect to routing status, whois and IRR registration, geolocation and blacklisting	• Usage of this service • Resolved problems • Member feedback • Unauthorised resource usage	• Service satisfaction of 90%
Maintain Correct and Current Registry Data	• Support Members to maintain accurate and current number resource registration records	• Incorrect information reports	• 90% success rate of verifying Whois contacts
Reclaim Unused IPv4 Address Space	• Identify and contact holders of unused resources to encourage return or transfer. • Provide a listing service for resources available for transfer	• Amount of resouces returned or transferred • Feedback throughout the process	• 100% of resource holders with potentially unused IPv4 address are contacted • Significant amount of resources returned or transferred

2B. **Registry Products**

OBJECTIVE
To provide and maintain an accurate number registry and reliable registry services.

PURPOSE
APNIC is the RIR responsible for managing Internet number resources in the Asia Pacific region.

Increasing demand for new registry-related services.

RISKS
Reputational damage and operational disruptions caused by inaccurate registry data.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Internet Number Registry Management	• Operate and manage APNIC's Internet number registry, including identifying areas for improvement and development	• Review and resolve identified issues and risks • NRO ITHI metrics • NIR data accuracy reflected in delegated statistics	• Continuous ITHI improvements • Accurate NIR data in delegated statistics file
Registry Product Management	• Build and maintain Registry products, including Whois, RDAP, RPKI, RDNS and IRR, to improve functionality and performance for all stakeholders	• Implementation of features required by new policies and community requests • Consistency between Whois and RDAP • Robustness for critical services such as RPKI publication points and signing systems • UX review of resource management web services	• Implement policies within 6 months of EC approval • Structural separation of IRR and Whois for a better consistency between Whois and RDAP • RDAP and RPKI repository cloud deployment • Implement publication service for self-hosted RPKI and NIR • Full coverage of all APNIC resources (including NIR) by RPKI services • Implementation of UX improvements to resource management web services

2C. **Policy Development**

OBJECTIVE

Facilitate the open Policy Development Process to ensure resource policies in the APNIC region are developed and implemented in a neutral manner consistent with agreed rules and community expectations.

PURPOSE

To ensure Internet number resources are distributed and used according to the technical and operational needs of the network.

Good policy contributes to an open, stable and secure Internet.

RISKS

Policies that don't contribute to an open, stable and secure Internet.

Not enough diverse participation in the Policy process.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Policy Development Process	• Facilitate the open Policy Development Process to ensure that resource policies are developed in a manner consistent with agreed rules and community expectations	• Policy SIG activity levels • Exchange of policy-related information with other RIRs • Support of ASO Address Council Members from the APNIC region	• Eight Policy SIG meetings held • Maintain a service quality rating of 5.75 for Policy Development
	• Support the Policy Chairs in their execution of policy processes.	• Annual review with Policy Chairs	• High satisfaction rating from Policy Chairs in each annual review of policy support
Policy Implementation	• Implement community-approved policies in a timely and effective manner.	• Compliance with agreed implementation timelines	• Meet 100% of agreed implementation timelines
Policy Analysis	• Analyze impact of policy proposals and advise the community	• Policy proposal analysis	• Publish policy proposal analysis before every Policy SIG meeting
	• Identify cases where policies may be required, or existing policies modified	• Policy analysis presentation at each policy meeting	• Delivery of eight policy analysis presentations

3. DEVELOPMENT

OBJECTIVES

Invest in sustainable development of the regional Internet community, industry and infrastructure.
Build capacity for best-practice Internet operations across the Internet technical community.

WORKSTREAMS

A. APNIC Conferences
B. Foundation Support
C. Community Engagement
D. Community Participation
E. APNIC Academy
F. Infrastructure Support

3A. **APNIC Conferences**

OBJECTIVE
To deliver engaging and relevant APNIC conferences for learning, sharing ideas and experience, professional networking, and Internet policy development.

PURPOSE
APNIC Conferences are highly valued by the community.

Conferences provide prime opportunity for engagement between APNIC community and staff and EC.

Conferences provide a vehicle for APNIC Policy Development Process.

RISKS
Aging community and lack of newcomers.

Failure to maintain value and quality.

Competing events.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Conferences	• Deliver well-organized, high-quality events for the APNIC community	• Participation numbers • Conference participant evaluation • APNIC Survey feedback	• Delivery of eight conferences, two in each sub-region • Maintain a conference quality rating of 6.0 • Achieve average conference participant satisfaction of 90% • Average attendance of 500 delegates per conference • 8,000 remote conference session views
	• Deliver consistently interesting and relevant program content to maintain value of conference to participants	• Participation numbers • Conference participant evaluation	• Achieve average satisfaction of 85% for speakers • Average attendance of 500 delegates per conference
Fellowship	• Support participation in conferences and workshops via Fellowships, with continued focus on diversity.	• Diversity of fellows • Number of fellowships offered • Fellowship participant evaluation	• Support 200+ fellows to attend APNIC conferences • Achieve 50:50 fellowship gender ratio

3B. **Foundation Support**

OBJECTIVE
To provide financial and operational support to ensure the success of the APNIC Foundation.

PURPOSE
The mission of the APNIC Foundation is to increase investment in the development activities of APNIC.

APNIC is underwriting and supporting the activities of the APNIC Foundation for up to 10 years.

RISKS
The capacity of APNIC to expand its capacity to support Foundation projects.

The ability to sustain projects and activities once funding has stopped.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Project Management and Implementation Support	● Support the implementation of well-organized and impactful projects	● Individual Project KPIs ● Level of community participation in Foundation projects and activities	● Growing blog and communication impact (4 each year) by community members and project participants ● 30% of ISIF Asia projects share content at APNIC conferences and other fora
	● Support for reporting and documentation of projects	● Regular and satisfactory donor reports, ● Blog posts and web site updates on all projects and activities	● All donor reports accepted ● All projects have blog or other communications coverage
Operational and Administrative Support	● Provide finance, operational, technical and legal support	● Successful project implementation ● Operational excellence ● Governance	● Annual audited financial statements ● Annual reports ● Annual Board meetings
ISIF Asia Funding	● Contribute financially to ISIF as a partner ● Participate as a partner in grant selection process	● Individual KPIs of projects supported	● Demonstrated success of projects supported

3C. Community Engagement

OBJECTIVE
To build and maintain close and meaningful relationships between APNIC and its various communities.

PURPOSE
A strong Internet relies on the cooperative efforts of a diverse community.

To provide a mechanism to encourage active participation.

RISKS
Challenges to the open, stable and secure Internet model.

Challenges to the registry management model.

Reduction of perceived value of APNIC membership.

Political sensitivities in a diverse region.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Technical Community Support	• Support NOGs as best current practice for effective Internet community development	• Number of NOG events supported • Number of NOG events attended • Annual investment per NOG	• Sponsor/participate in 32 technical community events per year (NOGs, Peering Forums and R&E events) • Facilitate and support new/revived NOGs where needed
	• Support regional Internet interconnection IXPs, Peering Forums and similar channels	• Number of events supported and attended	
	• Support R&E networks and community, as key to regional Internet development	• Number of R&E events supported • Number of R&E engagements	
Security Community support	• Work with security organizations (eg APCERT/FIRST, local CSIRTs) to promote best practice among Members	• Number of security events supported • Number of security events attended • Number of CERTs/CSIRTs supported	• Sponsor/participate in 10 security community events per year • Support targeted development of 3 new/existing CERTs/CSIRTs per year
Internet Organization Cooperation	• Support globally co-ordinated registry services, in coordination with other RIRs and NRO	• Participation in NRO CGs • Number of RIR engagements • Number of staff exchanges	• Participate in all RIR meetings (8 per year) • Contribute to all NRO CGs
	• Engage productively with Internet technical organizations (I* etc)	• Number of engagements	• Participate in all ICANN meetings (3 per year) • Maintain participation in I*
Internet Governance Participation	• Engage the community to strengthen open, multi-stakeholder, bottom-up and transparent Internet governance	• Number and diversity of community participants in IG discussions • Number and quality of IGF, NRIs, SIGs etc	• Participate in 3 Internet governance "schools" per year • Participate in annual APrIGF and global IGF events, and NRIs
Government Engagement	• Monitor government activities, build engagements and partnerships	• Number of engagements and partnerships with Govts and IGOs	• Maintain engagements in major ITU events and preparatory processes • Maintain engagements in IGO and multilateral arena
	• Promote the work of APNIC with the Public Safety community in the Asia-Pacific	• Number of Public Safety training sessions, workshops and engagements	• Maintain public safety engagements • Increase engagements with external funding

3D. Comunity Participation

OBJECTIVE

Encourage awareness, diversity, participation, and leadership in APNIC processes, events, and activities.

PURPOSE

The Internet relies on cooperative efforts of a diverse community.

Greater awareness of APNIC activities allows more of the community to benefit from APNIC's services and resources.

Encourage APNIC community engagement activities.

RISKS

Community generational change.

Diversity and newcomers.

Perceived value of APNIC services and initiatives.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Community-led Processes	• Increase awareness of and participation in APNIC community processes including the PDP, Special Interest Groups, and BOFs	• SIG meeting participation (online and face-face) • SIG mailing list metrics • Metrics specific to other community processes that may emerge (consultations, WGs etc)	• 1,200 in-person participants at SIG sessions • 3,200 online SIG participants • 1,500 SIG mailing list subscribers
Online Participation	• Promote online participation mechanisms, so Members and the community can benefit more efficiently from APNIC products, services and activities • Develop new mechanisms including an online collaboration platform and web-based mailing list access	• Website metrics • Online service usage metrics • Conference remote participation • Academy metrics • Blog metrics • Social media metrics	• Reach 4 million Blog views (all-time) • 8,000 remote conference session views • 4,000 conference delegates over four years • 15k Twitter followers • Facebook reach of 8 million
Encouraging Newcomers	• Encourage new participants in the APNIC community particularly the next generation of network engineers	• New participants • Repeat participants (online and face-face)	• 1,400 newcomers at APNIC conferences • 300 new Blog viewers • 3,600 new Twitter followers
Community Diversity	• Improve diversity (including gender, age, language) of community participation in APNIC events and activities	• Diversity metrics	• Improved diversity of community participation

3E. **APNIC Academy**

OBJECTIVE

Develop APNIC Academy as a cohesive platform for face-to-face and online delivery.

To scale up training and technical assistance with high-quality training content, curriculum and expertise.

PURPOSE

Responding to the community's high demand for capacity building assistance is vital for regional Internet development.

RISKS

Skills gap in the region translates into security risks for the whole Internet.

Lack of adoption of IPv6, RPKI, DNSSEC.

Insufficient funding support.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Curriculum Development	• Continued development of online and face-to-face courses for the Academy	• Number of training modules and courses developed	• Full curriculum for rounded Internet engineers
Face-to-Face Training	• Implement scalable delivery of high-quality face-face training	• Training days/hours supported • Demographic indicators • Participant feedback	• Conduct 65 face-to-face trainings per year
Online Training	• Implement scalable, versatile platform for online blended learning	• Training service metrics • Participant feedback	• Continual increase in online training delivery • High satisfaction ratings
Community Trainers	• Recruitment and development of community trainers to improve reach and efficiency of APNIC Academy training	• Community trainer numbers and activity metrics • Participant feedback	• Grow total pool of active accredited Community Trainers by 10 per year
Technical Assistance	• Respond wherever possible to requests from Members for technical assistance, on a cost-recovery basis	• Number of TA contact hours (online and face-to-face) • Demographic indicators	• 90% TA requests responded through face-to-face or online delivery
RPKI and IPv6 Promotion and Support	• Increase adoption of RPKI and routing security, and deployment of RPKI ROV • Increase deployment of IPv6 through training and technical assistance	• Deployment metrics • Promotional activity metrics and feedback	• Publish new 16 IPv6 deployment case studies • Support all IXPs in the region to deploy RPKI
Sustainabile Training Models	• Scale up APNIC Academy through external Training Partners • Develop financial and business models to support increased training activities	• Number of external partners • Training delivered through external training partners • Efficiency/Quality metrics	• Training partners program established • Training Partners recruited: at least one in each sub-region

3F. Internet Infastucture Support

OBJECTIVE

To promote and support the deployment of Internet infrastructure and deploy tools for operational infrastructure monitoring.

PURPOSE

For a more resilient Internet in the AP region.

RISKS

Maintaining neutrality in these deployments.

Unpredictability of demand.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Internet Infrastructure Deployment	• Support improvement of Internet interconnection, to keep local traffic local reduce cost and latency	• Richness of domestic interconnection • Number of IXPs supported	• IXPs in major cities of the region (as defined) • XPs in other locations as needed (eg Island capitals)
	• Support DNS deployment (root and other) for better resilience of Internet domain name infrastructure • Development of multi-purpose server platform and deployment model	• Number of servers, and server instances, supported • Number of new servers, and server instances, deployed	• Server platform at most IXPs in the region • Adoption of server platform by Members
Infrastructure Monitoring	• Maintain and grow the APNIC Community Honeynet to help network operators maintain network security	• Number of honeypots deployed • Number of Community Honeynet partners	• Honeypots in most economies in the region • Increasing use of Honeynet data
	• Support RIPE Atlas deployment to support more comprehensive Internet measurement globally	• Number of RIPE Atlas anchors and probes supported	• Increasing total deployment of active anchors and probes

4. INFORMATION

OBJECTIVE

Support Internet development with needed network information services, and research outcomes which are of demonstrated value to the community.

WORKSTREAMS

A. Information Products
B. Research and Analysis

4A. Information Products

OBJECTIVE
To provide meaningful information services to the communities APNIC serves.

PURPOSE
Having relevant information enables the community to support a global, open, stable and secure Internet.

RISKS
The ability to provide a sustainable service, within available budget.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
APNIC Blog	• Maintain the APNIC Blog as the Internet the leading daily news and opinion portal for Internet operations in the Asia Pacific	• Audience growth metrics • Community contributor metrics • APNIC Survey evaluation	• 4m Blog views (all-time) • Achieve 50k+ views per month (ave) by 2023 • Guest Post ratio of 50% • Survey rating of 5.75
Information Product Management	• Build and maintain Information products, including Internet Directory, NetOX and DASH to improve relevance and value to all stakeholders	• Users/month (new and current) • User feedback/ratings • GA metrics • Net Promoter Score	• Increased discoverability, usability and value offered – as measured. • Average latency less than 200ms, uptime of 99.99%
New Product Development	• Apply product management methodology to building the Information product portfolio	• Newly-developed related products	

4B. **Research and Analysis**

OBJECTIVE

To analyze the pressures shaping the evolution and future demands of Internet names and numbers infrastructure, and their impacts.

PURPOSE

To influence the evolution of the Internet in a manner consistent with the open and accessible use of communications infrastructure as a social good.

To support the PDP with relevant research data.

RISKS

A sustainable revenue model that permits longer-term investments into analyzing the future Internet.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Research and Measurement	● Conduct research experiments on topics including IP addressing, routing, DNS and other critical Internet infrastructure matters	● Published articles and reports	● 50 articles and reports published
Sharing Outcomes	● Share research insights online and at selected events to raise awareness of issues and trends which may impact Internet operations and assist policy discussions	● Presentations at chosen events	● 40 presentations delivered
	● Provide information to APNIC Policy SIG to assist policy discussion	● Informational presentations at Policy SIG	● Eight presentations to Policy SIG
Research Cooperation	● Engage in research partnerships with other organizations	● Co-published articles and reports	● 10% of research expenditure covered via sponsorship

5. CAPABILITY

OBJECTIVES:

Sustain a healthy and resilient organization.

Develop a strong service culture driven by people committed to APNIC's vision and values.

Provide stable and secure technical infrastructure to support APNIC operations and services.

WORKSTREAMS:

A. Internal Technical Infrastructure

B. Finance and Business Services

C. Employee Experience

D. Governance

5A. **Internal Technical Infrastructure**

OBJECTIVE

To provide stable and secure technical infrastructure to support APNIC operations and services.

PURPOSE

APNIC operations and services rely heavily on technology.

RISKS

Operations and service disruption.

Cyberthreats and other attacks.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Information Architecture	• Management of information architecture and governance for better integration and coordination	• Management framework for inter-system dependencies • Comprehensive visibility of inter-system communications for developers and operations • Data governance to manage roles and responsibilities regarding APNIC's data sets	• Products and systems exclusively communicate via managed APIs • Complete inter-system dependency graph • Active processes to maintain IA documentation
Network and Infrastructure Operations	• Management of APNIC data centre presence, interconnections and peering relationships, 24x7 Incident Response Team	• Availability of network and services • Network performance metrics • System metrics	• Achieve fewer hops away from all members and relying parties • Achieve yearly availability of 99.9% for critical APNIC services
	• Maintain high availability of all public services including whois, RDNS, RPKI and RDAP	• Availability of network and services	
System and Platform Operations	• IT Asset Lifecycle Management	• Asset auditing and compliance	• Complete annual audit of all IT hardware, 100% of assets accounted for
	• Migration of services to virtualised and 'cloud' infrastructure	• Virtualisation deployment ratio • Cloud deployment ratio	• Achieve 90% virtualisation/cloud ratio overall
CSIRT Operations	• Maintaining CSIRT to strengthen security incident response and handling within APNIC (relating to APNIC systems and services)	• Security incident metrics • Response/resolution time • Adherence to best practice	• Action within 2 hours, containment within 4 hours for security incidents • Minimised operational impact from security incidents
Enterprise Application Management	• Management and ongoing improvement of all enterprise applications underpinning APNIC operations	• User experience • Efficiency in business processes	• All critical applications access secured • 100% archiving of legacy systems and data

5B. **Finance & Business Services**

OBJECTIVE
To provide efficient and robust finance and business services and facilities to support APNIC's operations.

PURPOSE
APNIC's operations must be effectively managed to provide efficient use of Member funds in carrying out APNIC's mission.

RISKS
Reputational damage and/or legal or financial penalties.

Loss of "mutuality status" for tax purposes.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Knowledge Management	Maintaining effective methods, structures and tools to retain and retrieve corporate information within APNIC	Use of enterprise-wide knowledge management tools	Stable, cost-effective and well-used systems
Financial Services	Industry-standard financial management and reporting through compliance with relevant accounting standards	Annual financial audit	Unremarkable financial audit report every year
	Proper stewardship of APNIC's financial and taxation status	APNIC's mutuality tax status	Successful renewal of mutuality status
	Effective stewardship of APNIC financial resources	Meeting the financial targets set by the EC	Approved budget outcome exceeded each year
Business Services	Provide administrative services to support APNIC operations	Staff feedback	High satisfaction with administrative support
	Manage risks affecting business stability and continuity	Business Continuity Plan in place	Undertake quarterly BCP scenario testing
	Maintain a globally-recognized Quality Management System	ISO 9001 audit and recertification	Successful annual ISO audit
Business Intelligence	Integrate data from all critical systems for better analysis and reporting	Cross-organizational KPIs. External information reporting e.g. EC report Internal information reporting e.g. ad-hoc metrics	Stable, cost-effective and well-used systems

5C. **Employee Experience**

OBJECTIVE

To attract, develop and retain talented, service-oriented people to deliver APNIC's mission and exceed organization and community expectations.

PURPOSE

APNIC's mission to serve its community requires a human-centred approach delivered by competent, responsive teams.

RISKS

Loss of key talent.

Our ability to compete in the talent market.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Organizational Development	• Optimize organizational structure for the achievement of APNIC goals	• Staff Engagement Survey • Resource utilization	• Meet staff engagement benchmarks
	• Optimize overall staff performance, promoting APNIC values and culture	• Staff Engagement Survey • Staff exit interviews	• Maintain high-performing, benchmarked engagement levels
	• Extend APNIC's workforce regionally, to adequately resource the work needed	• Staffing levels • Staff performance	• Match benchmarks for distributed and HQ staff
Physical Work Environment Management	• Ensure that all places of work for APNIC staff, are fit for purpose and safe	• WHS audit	• Zero WHS incidents due to fault of APNIC
	• Manage travel safety and wellbeing, and risk to people and the organization	• Travel incident reports	• Zero WHS incidents due to fault of APNIC
Talent Attraction and Retention	• Recruit and retain the right skills and fit to best achieve APNIC objectives	• Voluntary turnover stats • Recruitment metrics	• Maintain benchmarked turnover level • Recruitment within three months of approval
	• Manage individual staff performance to ensure high organizational performance	• Performance metrics	• Individual performance aligned with APNIC's strategic and operational goals
	• Develop staff skills and knowledge to meet business needs and staff personal goals	• Staff retention • Training metrics • Exit interviews	• Delivery of training plans within budget • Zero attrition for reasons of training/professional development
Policies and Benefits Management	• Provide policies and benefits which attract and retain staff	• Benchmarking • Staff survey results	• Policies benchmarked against leading organizations

5D. **Governance**

OBJECTIVE

To provide the legal, economic and governance framework and professional services to support APNIC's operations to minimise risk and ensure compliance and continuity.

PURPOSE

EC and APNIC have a requirement for transparency and accountability and must comply with all organizational, domestic and international obligations.

RISKS

Reputational damage.

Legal or financial penalties.

ACTIVITIES	OBJECTIVES	INDICATORS	FOUR YEAR TARGETS
Executive Council (EC) Support	● Provide logistical and administrative support to enable the EC to discharge their duties ● Ensure that the EC is adequately informed on all matters as required	● EC meeting processes and timelines, for travel, meetings etc ● EC performance and satisfaction metrics	● Meeting agreed timelines for all processes and activities ● Maintaining satisfaction levels
Corporate Governance and Legal	● Ensure that APNIC continues to have a culture of legal and regulatory compliance and commitment to recognized professional standards ● Ensure that organizational risks are effectively managed	● Fair Work Standards Compliance ● Risk Registry Compliance	● No adverse actions against APNIC ● Revised Risk Registry implemented ● Risk Register review undertaken at each EC meeting

APNIC

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