# APNIC EC Meeting Minutes

**Online meeting**

Monday, 22 February 2021, 12:45 – 17:52 (UTC +10)
Thursday, 4 March 2021, 18:15 – 18:50 (UTC +10)

***Meeting started at 12:45 (UTC +10), Monday, 22 February 2021***

**Present**
     Gaurab Raj Upadhaya, EC Chair
     Kam Sze Yeung
     Kenny Huang, Treasurer
     Paul Wilson, Director General
     Sumon Ahmed Sabir
     Vincent Achie Atienza, Secretary
     Yoshinobu Matsuzaki
     Yuedong Zhang (joined on 22/02, not a member on 04/03)
     Feng Leng (not a member on 22/02, joined on 04/03)

     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. EC Chair update
7. WH&S update
8. Financial reports
9. Secretariat report
10. Review of Non-Member and historical resource holders' structure
11. APIDT update
12. APNIC Foundation update
13. APNIC 51 EC election procedures
14. Risk register
15. Any other business
16. Appointment of officeholders
17. DG update
18. Proposed historical resource fees
19. Thanks to retiring EC member
20. Next EC meeting

**Minutes**

1. **Opening of meeting and declaration of quorum**

   The Chair of the Executive Council (EC Chair) welcomed all attendees to the meeting. The EC Chair declared the meeting open at 12:45 (UTC +10) on Monday, 22 February 2021, and noted that a quorum was present.

2. **Agenda bashing**

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

3. **Declaration of interests**

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

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

4. **Review of minutes of 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 2020-29: The EC resolved to appoint Lito Averia as Election Chair of the next EC election during APNIC 51.**

   **Resolution 2021-01: The EC resolved to adopt the minutes of the EC meeting of 7-8 December 2020.**

5. **Matters arising from the last meeting**

   The following matters from the previous meetings were completed:

   *Action item 2020-12: The Secretariat to upload the word version of the EC response to the EC wiki for further comments and changes from the EC.*

   *Action item 2020-13: Tony Smith to discuss the possibility of putting the rotation policy on pause with the APNOG Board.*

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

   *Action item 2020-14: The Secretariat to revise the fee schedule and develop an implementation plan for EC approval at the next meeting. [See agenda item 10 and 18]*

### 6. EC Chair update

The EC Chair provided the Chair update. He noted that there had not been much to report since the last meeting. He attended the online RIPE and ARIN meetings, and reported on his observations.

### 7. WH&S update

Kam Sze Yeung spoke to the Workplace Health and Safety quarterly update.

### 8. Financial reports

Irene Chan joined the meeting for this agenda item.

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

Nathan Furness presented the executive summary of the 2020 Audit Report (attached). The audit report noted that unqualified audit opinions were issued on the 2020 financial statements and the accounts gives a true and fair view of APNIC's financial position. This report also noted some potential areas for improvement to strengthen internal controls within APNIC.

*[Nathan Furness left the meeting at 14:18 (UTC +10)]*

It was noted that the Private Ruling from the Australian Taxation Office (ATO) was re-confirmed in November 2017 for a further five years ending June 2022. The renewal process of ATO's special ruling relating to the status of mutuality with respect to the taxation on membership funds will start next year, with KPMG.

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 2020. The EC noted APNIC's equity position of AUD 34.2M, represents a 11% increase in total net assets through 2020. Total revenue was AUD 25M and total expenses were AUD 21.8M for the year. The final result for 2020 was an operating surplus of AUD 3.2M which exceeded the budget by AUD 2.6M.

As of 31 December 2020, APNIC had a total of 8,341 Members serving 53 economies. There were 833 new and reactivated Members and 268 Members who had closed their accounts, representing a net increase of 565 Members during 2020.

> **Resolution 2021-02: The EC resolved to adopt the Special Purpose Financial Report for 2020 as representing the financial position of APNIC as at 31 December 2020, 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 2021-03: The EC resolved to accept the Auditor's Report (as tabled at the meeting).**

Motion proposed by Kenny Huang; seconded by Yoshinobu Matsuzaki. Passed unanimously.

**Resolution 2021-04: The EC resolved that Deloitte Private Pty Ltd ACN 120 167 455 of Brisbane, Australia, continues its appointment as the auditor of APNIC to continue to hold office from FY2021 for the period of three years, or earlier if it resigns, or if the APNIC EC appoints another auditor in its stead.**

Motion proposed by Kenny Huang; seconded by Sumon Ahmed Sabir. Passed unanimously.

It was noted that the stock market has rebounded very strongly and recovered most of the losses. The EC felt that it would be fine for Credit Suisse to brief the EC on the performance of the managed investment funds and the financial outlook once a year during the EC retreat.

*Meeting adjourned at 14:10 (UTC +10), Monday, 22 February 2021*

*Meeting resumed at 14:30 (UTC +10), Monday, 22 February 2021*

9. **Secretariat Report**

   The Director General spoke to the Secretariat Report (attached).

   The EC discussed several items in the Secretariat Report at length.

   The EC noted that APNIC is contributing to many community events, particularly on security issues. The EC further acknowledged the support that APNIC makes to local communities to meet the growing demand.

   *[Kenny Huang left the meeting at 15:30 (UTC +10)]*

   The Director General then presented the HR report.

   *[Yuedong Zhang left the meeting at 15:40 (UTC +10)]*

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

   **Resolution 2021-05: The EC resolved to approve the draft agenda for the AGM of 4 March 2021.**

   Motion proposed by Gaurab Raj Upadhaya; seconded by Vincent Achie Atienza. Passed unanimously.

10. **Review of Non-Member and historical resource holders' structure**

    Sanjaya spoke to the Non-Member and historical resource holders' fee change presentation.

    The EC agreed to adopt the new fee schedules at the next EC meeting after the EC election.

    Duncan Macintosh joined the meeting for the next two agenda items.

11. **APIDT update**

    The Director General spoke to the APIDT update presentation (attached).

## 12. APNIC Foundation update

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

The EC discussed several names for the potential board members of the APNIC Foundation.

[Confidential material redacted]

The EC thanked the APNIC Foundation Board, and asked Duncan Macintosh to express their sincere appreciation to the APNIC Foundation board members, especially to Michael Malone for his services as Chair to the Foundation Board.

*Action item 2021-02: Duncan Macintosh to convey thanks to the Foundation Board on behalf of the APNIC EC.*

*[Duncan Macintosh and Irene Chan left the meeting at 17:00 (UTC +10)]*

> **Resolution 2021-06: The EC resolved that Paul Wilson be appointed as APNIC's representative at the 2021 Annual General Meeting of APNIC Foundation Limited (Hong Kong), 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 Yoshinobu Matsuzaki. Passed unanimously.

Paul Wilson abstained from voting.

> **Resolution 2021-07: The EC resolved that each of (1) Sylvia Efi Widyantari Sumarlin; (2) Tian Suning; (3) Sharad Kumar Sanghi; (4) Danish Ali Lakhani; (5) Michael Malone; and (6) Jun Murai be re-appointed as a director of APNIC Foundation Limited (Hong Kong), 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 Vincent Achie Atienza. Passed unanimously.

Paul Wilson abstained from voting.

## 13. APNIC 51 EC election procedures

Craig Ng spoke to the 2021 EC Election procedures (attached).

> **Resolution 2021-08: The EC resolved to appoint Connie Chan and Andre Gelderblom of the APNIC Secretariat as Election Officers, and endorsed the APNIC 51 EC Election procedures.**

Motion proposed by Paul Wilson; seconded by Sumon Ahmed Sabir. Passed without objection.

Gaurab Raj Upadhaya and Yoshinobu Matsuzaki abstained from voting. Kenny Huang has left the meeting.

## 14. Risk register

Richard Brown spoke to the risk register presentation. There was no significant change to the current register.

The EC suggested the risk register be reviewed every six months during June and December of each year.

## 15. Any other business

The EC Chair called for any other business.

### a. EC wiki and WhatsApp migration

Sanjaya provided an update on the EC wiki and WhatsApp migration.

The EC agreed to use Slack as a formal communication channel, and use Signal for text messaging.

### b. RPKI operational readiness

There was a discussion about the recent attacks that have happened and the options to operate the RPKI service in future.

*Meeting adjourned at 17:52 (UTC +10), Monday, 22 February 2021*

*Meeting resumed at 18:15 (UTC +10), Thursday, 4 March 2021*

## 16. Appointment of officeholders

The EC welcomed the newly elected EC member, Feng Leng.

The EC held officer elections, to take office immediately following the AGM. In accordance with the EC procedures, the Director General assumed the role of Meeting Chair for the election of the Chair. The presence of a quorum was noted.

Nominations were called for the position of Chair of the EC. Vincent Achie Atienza nominated Gaurab Raj Upadhaya. There were no other nominations. Gaurab Raj Upadhaya was elected unopposed as the Chair of the EC.

Gaurab Raj Upadhaya assumed the role of Meeting Chair.

Nominations were called for the position of Treasurer. Vincent Achie Atienza 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. Gaurab Raj Upadhaya nominated Vincent Achie Atienza. There were no other nominations. Vincent Achie Atienza was elected unopposed as the Secretary of the EC.

## 17. DG update

The Director General provided an update on the following issues.

### a. ELT changes: Services Director and CFO/Finance Director

Further to the HR report presented earlier, the Director General noted that there will be some changes to the Executive Leadership Team at APNIC, with no budgetary impact. APNIC will be commencing recruitment for the two positions, Services Director and Finance Director.

Sanjaya has been working in two roles, Deputy Director General and Services Director. He will now return his full focus to that of his DDG role.

With Richard Brown taking on the role of CFO for APIDT from around May this year, APNIC will be recruiting for a Finance Director to look after APNIC's financial operations, with some parts of his responsibilities being distributed to other areas of APNIC.

### b. RPKI

The Director General presented the 2021 roadmap on RPKI (attached), and noted that APNIC focusing heavily on these services this year and is collaborating with the RIRs on this work.

## 18. Proposed historical resource fees

Following from discussions earlier, which included the EC's consideration of various alternatives, the following resolutions were proposed.

**Resolution 2021-09: The EC resolved that all historical resource holders will need to become, or remain, a Member or Non-member of APNIC on and from [1 January 2023], in order to continue to receive registry services from APNIC.**

**Resolution 2021-10: The EC resolved that on and from [1 January 2023], historical address holdings will not be taken into account when calculating annual fees for APNIC Members and Non-members.**

**Resolution 2021-11: The EC resolved that the Registry Database Maintenance Fee will be removed from the APNIC Non-Member Fee Schedule, with effect on and from [1 January 2023].**

**Resolution 2021-12: The EC resolved that on and from [1 May 2021], RPKI services will be made available for all historical resources held by APNIC Members or Non-members.**

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

## 19. Thanks to retiring EC member

The EC Chair proposed a vote of thanks to retiring EC member, Yuedong Zhang, for his contributions to APNIC and the APNIC EC.

**Resolution 2021-13: The EC resolved to express their sincere appreciation and deepest gratitude to Yuedong Zhang for his two years of service to the APNIC EC and APNIC community.**

Motion proposed by Gaurab Raj Upadhaya; seconded by Yoshinobu Matsuzaki. Passed unanimously.

## 20. Next EC meeting

The next EC meeting is tentatively scheduled for 21-22 June 2021.

***Meeting closed at 18:50 (UTC +10), Thursday, 4 March 2021***

**Attachments:**

    **A. Register of interest**
    **B. [Confidential information redacted]**
    **C. 2020 Audit Report presentation**
    **D. 2020 special purpose financial report and auditor's report**
    **E. 2020 annual financial report and presentation**
    **F. December 2020 and January 2021 investment reports and commentary**
    **G. Secretariat report and presentation**
    **H. [Confidential information redacted]**
    **I. APNIC Annual Report 2020**
    **J. APNIC Activity Plan 2021**
    **K. APNIC 51 AGM draft agenda**
    **L. [Confidential information redacted]**
    **M. APIDT update presentation**
    **N. APNIC Foundation update presentation**
    **O. APNIC EC 51 election procedures**
    **P. [Confidential information redacted]**
    **Q. 2021 RPKI roadmap**

# 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 **22 February 2021**.

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

- Employee of 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 SANOG
- 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
- Member of the TWNOG Multi-stakeholder Steering Group (MSG)

Kenny Huang declared that he currently holds the following positions:

- Managing Director and CEO of TWNIC
- Member of the Advisory Council of DotAsia Organization

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

Vincent Achie Atienza declared that he currently holds the following positions:

- Employee of Globe Telecom
- Chair of the Philippine Network Operators Group (PhNOG)
- Board member of Internet Society Philippines (ISOC-Ph)
- Member of Ph Technical working group for IPv6 & DNSSEC
- Member of Ph Technical working group for RPKI

- Member (Ph Representative) - APIX - Asia Pacific Internet Exchange Association)
- Member/Evangelist - Philippine Open Internet eXchange (PhOpenIX)
- Member of the Program Committee of APRICOT

Sumon Ahmed Sabir declared that he currently holds the following positions:

- CTO, Fiber@Home Limited
- Sponsor of BDCOM Online Limited
- Member, Board of Trustee, BDIX
- Member, Board of Trustee, BDNOG
- Member, Corecom, SANOG
- Member, Board of Trustee, ISOC, Bangladesh, Dhaka Chapter

Paul Wilson declared that he currently holds the following position:

- Director of APIDTT Pty Ltd
- Director of APIDT Infrastructure Pty Ltd

# Agenda Item 8
# Financial reports

# Deloitte.

**APNIC Pty Ltd**

**Report to the Executive Committee for the year ended 31 December 2020**

# Deloitte.

Executive Committee

APNIC Pty Ltd

6 Cordelia Street

Brisbane South

QLD 4101

15 February 2021

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 2020.

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 2020 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 22 February 2021 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 and the Executive Committee in fulfilling their governance obligations relating to APNIC Pty Ltd for the year ended 31 December 2020.

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 2020 ("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 2020.

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 C 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 our previous audit 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). Consistent with last year, 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).

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 2020 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**

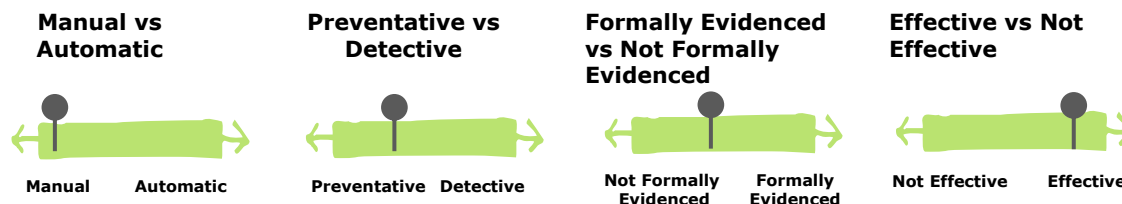During the current year audit no specialists were considered necessary.

# 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 2020, 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. Those we consider relevant for the attention of the Committee we have included 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. | **Annual Leave Balance**<br><br>During the testing of the Annual leave provision it was noted that 23 employees have above 25 days of annual leave. This is in breach of APNIC policy which states that the maximum annual leave days balance for an individual is 25 days. The total leave balance of the 23 employees this relates to is $389,228. | There are a number of risks with employees not taking leave:<br><br>• Increased financial exposure due to annual leave being paid out at higher rates in the future;<br><br>• Heighted fraud risk with tasks being completed by the one employee with no substitution between team members;<br><br>• Reduced productivity and risk of employee fatigue. | We recommend that APNIC should comply with their policy of 25 days, and once employees have reached this maximum balance, they are required to take annual leave. |
| 2. | **Access Rights Review (NetSuite)**<br><br>User access rights are reviewed by Financial controller. | There is an increased risk of unauthorised access and possible security breaches due to the Financial controller having admin access to NetSuite while also being a member of the finance team. | We recommend that the Financial controllers admin access is removed or a team member outside of the finance team reviews the change log. |

# 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 2020. We agree with management's conclusion.

**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.

| Uncorrected misstatements identified | Assets Dr/(Cr) ($) | Liabilities Dr/(Cr) ($) | Equity Dr/(Cr) ($) | Profit and Loss Dr/(Cr) ($) |
|---|---|---|---|---|
| Current LSL Provision | | (113,709) | | |
| Non-Current LSL Provision | | 113,709 | | |

# 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 2020, 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

# F. Financial reporting update

**1 | Current reporting issues (COVID-19)**

1.1 | NFP-specific financial reporting considerations
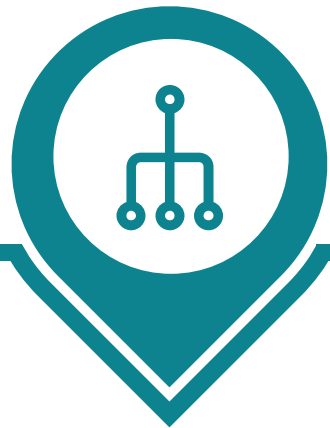


## Charity operations

Keep everyone informed

Consistency with charitable purpose

## Financial considerations

Re-assess future cash flows and forecasts – stocktake of funding inflows/outflows

Review existing liabilities

Understand fixed costs commitments

## Charity fundraisers

Consider actions on money raised

Impact on cash flow forecasts (related expenditure commitments)

## Charity reserves

Drawing on reserves

Restrictions on use

# F. Financial reporting update

**1 | Current reporting issues (COVID-19)**

1.2 | Accounting for government support packages

The AASB has released a new Staff FAQs − Accounting for Government Support which illustrates the decision-making process of the applicable Standards (e.g. AASB 1058 for NFP entities and AASB 120 *Accounting for Government Grants and Disclosure of Government Assistance* for for-profit entities) when accounting for government support.

## Scope

Consider whether a government support arrangement is within the scope of:
• AASB 15
• AASB 1058
• Another applicable Standard (e.g. AASB 112)

## Accounting & Presentation

AASB 1058 accounting:
• Recognise asset (e.g. Cash or PPE)
• Check for related amounts (e.g. AASB 15)
• Recognise residual as income/expense immediately

Check for exceptions: Capital grants

Presentation:
Present separately as 'income'
(Grant income cannot be presented net against the related expense for NFP entities)

# F. Financial reporting update

**2 | AASB developments**

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

For annual periods beginning on or after 1 July 2021, certain types of for-profit private sector entities will no longer be able to prepare special purpose financial statements under AASB Standards via the issue of AASB 2020-2 *Amendments to Australian Accounting Standards – Removal of Special Purpose Financial Statements for Certain For-Profit Private Sector Entities*.

NFP private or public sector entities that prepare SPFS are not affected, but their continued ability to prepare SPFS will be considered as part of the forthcoming Australian Financial Reporting Framework project for not-for-profit private and public sector entities.
Per the most recent AASB Work Program (19 June 2020), the AASB is planning to release the Exposure Draft in H2 2020/H1 2021.

**NFP Private Sector Financial Reporting Framework Project**

Removal of SPFS

**Phase III: Not-for-profit entities**

**AASB to perform:**

Outreach

Extensive Research

ACNC Legislative Review

Collaboration with State/Territory Regulators

Transitional relief between tiers

NFP Private Framework

Templates and guidance to manage new requirements

NFP: ED expected H2 2020 / H1 2021
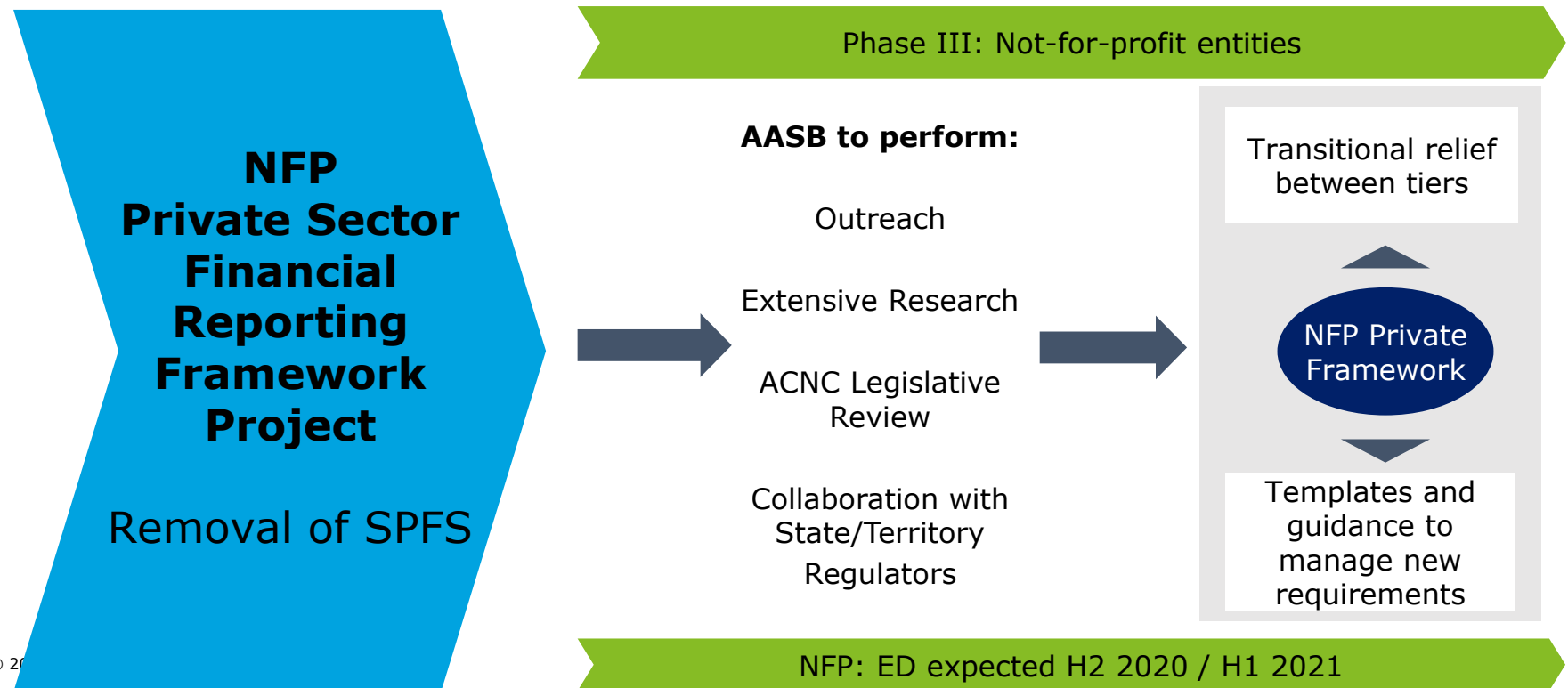
# F. Financial reporting update

**2 | AASB developments**

2.2 | Other NFP-specific AASB developments

## NFP Amendments to AASB Conceptual Framework

Consider NFP-specific modifications to AASB's *Conceptual Framework for Financial Reporting*

*Status* : Project plan approved in June 2020

*Next steps*: Research and outreach planned for H2 2020

## Service Performance Reporting

Principles for NFP entities to report their service performance information

Other AASB NFP developments

*Status* : AASB Research Report 14 Literature Review: *Service Performance Reporting for Not-for-Profits* issued in February 2020

*Next steps*: Benchmarking report of international practices planned for Q3 2020 (Management Commentary project)

## Fair value measurement

To address issues and concerns related to fair value for NFP entities

*Status* : Ongoing deliberations

*Next steps*: AASB will consider proposals on fair value issues on restricted assets at September 2020 meeting

# F. Financial reporting update

**3 | Regulatory considerations**

3.1 | ACNC Legislation Review

| Recommendations tabled to Government: 22 August 2018 | Government released responses: 6 March 2020 | Effective date of new regulations: TBC |
| --- | --- | --- |

**Key regulatory framework changes:**

**1** **New Revenue Thresholds**

**2** **All registered entities are required to disclose related party transactions**

**3** **Large registered entities required to disclose remuneration paid to responsible persons and senior executives on an aggregated basis**

| Registered entity size: | Current revenue threshold | Proposed revenue threshold * | Minimum reporting requirements |
| --- | --- | --- | --- |
| Small | < $250,000 | <$1,000,000 | AIS (Option: simplified balance sheet / statement of resources) |
| Medium | $250,000 – $1,000,000 | $1,000,000 – $5,000,000 | AIS & Financial Report (Audited / Reviewed) |
| Large | >$1,000,000 | >$5,000,000 | AIS & Audited Financial Report |

*Rolling 3-year average of annual revenue to accommodate for short-term variances in revenue*

# G. Additional disclosures in special purpose financial statements

**Why it matters**

For certain NFP private sector entities preparing special purpose financial statements (SPFS), there are some new disclosure requirements to take note of for 31 December 2020. The AASB has issued an amending standard, AASB 2019-4 *Amendments to Australian Accounting Standards – Disclosure in Special Purpose Financial Statements of Not-for-Profit Private Sector Entities on Compliance with Recognition and Measurement Requirements* which introduces new disclosure requirements in AASB 1054 on the compliance with recognition and measurement requirements.

The AASB has introduced these new disclosures to provide greater transparency for SPFS as its previous research indicated that, for 44% of medium and large charities lodging SPFS with the ACNC, it was unclear whether they complied with the recognition and measurement requirements in Australian Accounting Standards (AAS).

**What entities are likely to be affected?**

The new disclosure requirements affect the following entities:
- Medium and large charities registered with the ACNC preparing SPFS
- NFP entities that are lodging SPFS with ASIC (e.g. companies limited by guarantee).

**What is the effective date?**

These changes are effective for periods ending on or after 30 June 2020.

**What else should entities take note of?**

There is informative implementation guidance (including a flowchart) and illustrative examples included in the standard for entities to refer to when drafting the new disclosures.

Disclosure of basis

Application of the consolidation and equity accounting requirements

Compliance with recognition and measurement requirements in AAS

| Key area of disclosures | Disclosure requirements |
|---|---|
| **Disclosure of basis** | Disclose the basis on which the decision to prepare SPFS was made (e.g. the rationale as to why SPFS are appropriate) |
| **Application of the consolidation and equity accounting requirements** (this is only applicable where the entity has interests in other entities) | Should the entity's interests in other entities give rise to subsidiaries, associates or joint ventures, the entity shall disclose whether it has accounted for those interests in accordance with AASB 10 *Consolidated Financial Statements* and AASB 128 *Investments in Associates and Joint Ventures*. If the entity has not accounted for those interests in accordance with AASB 10 and/or AASB 128, it shall disclose that fact and the reasons why. Alternatively, if the entity is not required by legislation to make such an assessment for the purpose of assessing its financial reporting requirements and it has not done so, it shall instead disclose that fact. |
| **Compliance with the recognition and measurement requirements in AAS** (except for consolidation and equity accounting) | For each material accounting policy that does not comply, the entity shall either disclose where it does not comply or disclose that an assessment has not been made. The entity will also need to disclose the overall compliance of the financial statements with the recognition and measurement requirements of AAS. |

# H. Proposed transitional relief between Tier 2 frameworks for not-for-profit entities

**Why it matters**

AASB has issued ED 306 *Transition Between Tier 2 Frameworks for Not-for-Profit Entities* which proposes limited comparative information relief for NFP entities adopting AASB 1060 early by transitioning from Tier 2 – Reduced Disclosure Requirements (RDR) to Tier 2 – Simplified Disclosures (SD).

Currently, such NFP entities cannot access the same comparative information relief that is available to for-profit private sector entities in those circumstances.

ED 306 therefore proposes limited relief for not-for-profit entities that adopt AASB 1060 early, that is, for reporting periods beginning before 1 July 2021, from having to present comparative information in the notes to the financial statements if the entity did not previously disclose the comparable information in its most recent previous Tier 2 general purpose financial statements.

**What entities are likely to be affected?**

NFP Tier 2 entities that are currently applying RDR and will early adopt AASB 1060 in advance of its effective date. Generally, Tier 2 SD has fewer disclosures when compared to the existing RDR which may make it attractive for entities to early adopt. Entities that plan to early adopt should wait for the finalisation of this proposed amendment.

**What is the proposed effective date?**

Comments on this Exposure Draft closed on 15 January 2021 with the proposed amendments to apply for periods beginning on or after 1 July 2021.

**1. NFP entity**

Are you a NFP entity?

**2. Tier 2 RDR**

Are you currently applying Tier 2 RDR requirements?

**3. Early adoption of AASB 1060**

Will you be early adopting AASB 1060 in advance of the 1 July 2021 effective date?

**4. Comparative relief**

**AASB ED 306 is proposing limited comparative information relief**

Relief to present comparative information in the notes if such information was not previously disclosed in the entity's most recent previous Tier 2 financial statements

# I. AASB update

**Why it matters?**

The AASB have a detailed agenda of projects to consider over the coming year.  Many of these projects directly impact on NFP entities and how they prepare their financial statements.

It is important entities follow the AASB work program and actively participate in calls from the AASB to provide comments on work that they are undertaking.  It is only when the AASB understand the views of the financial reporting community that they are able to provide accounting standards and guidance that are truly fit for purpose.

| Projects | Background and status | Actions |
|---|---|---|
| NFP definition | The objective of this project is to replace the current definition of NFP entity in Australian accounting standards with the definition used for public benefit entities in New Zealand.  In addition, the project aims to provide guidance for determining whether it is a for profit or not for profit entity for the purposes of financial reporting and application of accounting standards.<br><br>An exposure draft was issued in 2019.  Since comments were received, the AASB have continued deliberation and outreach regarding this project.  Further analysis is to be done over 2021 with the matter not due to be discussed until the second half of 2021. | • Entities should continue to monitor this project for further updates |
| NFP private framework | The objective of the project is to lead the development of a simple, proportionate, consistent and transparent financial reporting framework for all not-for-profit (NFP) private sector entities in Australia. Features of such a framework include:<br>• a single set of reporting thresholds for all Australian NFP private sector entities<br>• simplified recognition and measurement accounting framework/s<br>• development of standards addressing matters integral to financial reporting in the NFP sector.  These matters include reporting format and reporting of service performance.<br><br>The AASB have been undertaking targeted consultation.  Over the first half of 2021 this will continue with a view to drafting and issuing a Consultation Paper in the second half of 2021. | • Continue to monitor this project<br>• Actively participate in requests for information and consultation |
| NFP conceptual framework | The AASB have committed to developing NFP specific amendments to the Conceptual Framework.  Research and outreach activities are ongoing.  AASB staff will continue to analyse these and report back to the board in the first half of 2021. | • Continue to monitor this project<br>• Actively participate in requests for information and consultation |
| Fair value measurement | The AASB have continued their project investigating the need for additional guidance for NFP reporters in the application of AASB 13 *Fair Value Measurement.*  Throughout 2020 outreach and research was undertaken.<br><br>An aspect of this project that is relevant to private NFP reporters is the impact on the current temporary exemption to the requirement to measure concessionary leases at fair value.  The AASB have decided to not progress this issue until both the Financial Reporting Framework project and the Fair Value Measurement Framework are further progressed. | • Continue to monitor this project<br>• Actively participate in requests for information and consultation |

Asia Pacific Network Information Centre
APNIC Pty Ltd
ABN: 42 081 528 010

6 Cordelia Street
PO Box 3646
South Brisbane
QLD 4101 AUSTRALIA

URL  www.apnic.net
Enquiries  helpdesk@apnic.net
Accounts  billing@apnic.net
Phone  +61 7 3858 3100
Fax  + 61 7 3858 3199

*19 February 2021*

**Mr Nathan Furness**
**Deloitte Touche Tohmatsu**
**123 Riverside Centre**
**Brisbane QLD 4000**

This representation letter is provided in connection with your audit of the financial report of APNIC Pty Ltd for the year ended 31 December 2020, for the purpose of expressing an opinion as to whether the financial report gives a true and fair view in accordance with the Australian Accounting Standards and the *Corporations Act 2001.*

We confirm that:

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement dated 24 November 2020, for the preparation of the financial report in accordance with Australian Accounting Standards and the *Corporations Act 2001*; in particular the financial report gives a true and fair view in accordance therewith.

2. We have provided you with:
   - Access to all information of which we are aware that is relevant to the preparation of the financial report such as records, documentation and other matters;
   - Additional information that you have requested from us for the purpose of the audit;
   - Unrestricted access to the persons within the entity from whom you determined it necessary to obtain audit evidence; and
   - All requested information, explanations and assistance for the purposes of the audit.

3. All transactions have been recorded in the accounting records and are reflected in the financial report.

4. We are responsible for the design, implementation and maintenance of internal control to prevent and detect fraud.

5. We have disclosed to you the results of our assessment of the risk that the financial report may be materially misstated as a result of fraud.

6. There has been no fraud or suspected fraud affecting the entity involving management, employees who have significant roles in internal control or others where the fraud could have a material effect on the financial report.

7. There have been no allegations of fraud, or suspected fraud, affecting the entity's financial report communicated by employees, former employees, analysts, regulators or others.

8. There have been no instances of non-compliance or suspected non-compliance with laws and regulations whose effects should be considered when preparing the financial report.

9. In consideration of the impact of COVID-19 we have performed a going concern assessment as at the date of signing the financial report as required by AASB 110 "Events After the Reporting Period". We have determined that as at this date APNIC Pty Ltd continues to be a going concern and, therefore, it continues to be appropriate to prepare the financial report of APNIC Pty Ltd on the going concern basis in accordance with AASB 101 "Presentation of Financial Statements". We are not aware, as at the date of this letter, of a material uncertainty arising from COVID-19 that casts significant doubt on the ability of APNIC Pty Ltd to continue as a going concern.

10. Significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.

11. We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.

12. Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of the *Australian Charities and Not-for-profits Commission Act 2012*, including compliance with Australian Accounting Standards.

13. All known actual or possible litigation and claims whose effects should be considered when preparing the financial report have been disclosed to you and accounted for and disclosed in accordance with the *Australian Charities and Not-for-profits Commission Act 2012*, including compliance with Australian Accounting Standards.

14. The effects of uncorrected misstatements are immaterial, individually and in aggregate, to the financial report as a whole. A summary of such items is attached to the representation letter as Appendix A.

15. All events occurring subsequent to the date of the financial report and for which for which the *Australian Charities and Not-for-profits Commission Act 2012*, including compliance with Australian Accounting, require adjustment or disclosure have been adjusted or disclosed within the financial report.

16. In respect of other information:
    - we have informed you of all the documents that we expect to issue that may comprise other information;
    - The financial report and any other information obtained by you prior to the date of your auditor's report is consistent with one another, and the other information does not contain any material misstatements.

17. The selection and application of accounting policies as described in Note 2 in the financial report are appropriate.

18. We have no plans or intentions that may affect the carrying value or classification of assets and liabilities.

19. Liabilities, both actual and contingent, have been properly recorded and, when appropriate, adequately disclosed in the financial report.

20. The entity has satisfactory title to, or control over all assets and there are no liens or encumbrances on such assets that have not been disclosed nor has any asset been pledged as collateral.

21. We have properly recorded and, when appropriate, adequately disclosed in the financial report the affects of any laws, regulations and contractual agreements on the financial report, including non-compliance.

22. We have communicated to you all deficiencies in internal control of which we are aware.

23. We have disclosed to you all financial guarantees that we have given to third parties and we have accounted for these guarantees in accordance with the requirements of AASB 9 "Financial Instruments".

24. We have provided you with all relevant information pertaining to the restatement made to correct a material misstatement in the prior period financial report in relation to retained earnings and deferred tax that affects the comparative information, and it has been appropriately accounted for and disclosed in accordance with the requirements of Australian Accounting Standards.

We understand that your audit was conducted in accordance with Australian Auditing Standards and was, therefore, designed primarily for the purpose of expressing an opinion on the financial report of the entity taken as a whole, and that your test of the financial records and other auditing procedures were limited to those which you considered necessary for that purpose.

Yours faithfully,

_____          _____
Paul Wilson                                19 February 2021


_____          _____
Richard Brown                              19 February 2021

## APNIC Pty Ltd

| Account Name | Assets DR/(CR) | Liabilities DR/(CR) | Retained Earnings DR/(CR) | Equity DR/(CR) | Income Statement DR/(CR) |
|---|---|---|---|---|---|
| | | | | | |
| **Misstatements for the current year** | | | | | |
| None noted | | | | | |
| | | | | | |
| **Carry over effects of prior year misstatements** | | | | | |
| None noted | | | | | |
| | - | - | - | - | - |

**Disclosure deficiencies**

| Description | Standard Reference | Amount |
|---|---|---|
| Classification of provision for long service leave between current and non-current liabilities with current portion understated. | AASB101 | $113,709 |

# APNIC Pty Ltd

ABN 42 081 528 010

# Special purpose annual report
# For the year ended 31 December 2020

I, Paul Byron Wilson, certify that this Annexure ('A') of 28 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 19th day of February 2021

# APNIC Pty Ltd

ABN 42 081 528 010

# Special purpose annual report - 31 December 2020

**Contents**

Your director presents his report on APNIC Pty Ltd (hereafter referred to as the "Company") for the year ended 31 December 2020.

**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 $3,863,435 (2019: $2,460,672). Included in this result is a $650,379 (2019: $2,169,284) gain recognised from financial assets account for as fair value through profit or loss.

**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 2020 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 $22,460 (2019: $21,525) 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*.

2

**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
19 February 2021

Auditor Independence Declaration

**To be inserted by Deloitte**

**APNIC Pty Ltd**
**Statement of Profit or Loss and Other Comprehensive Income**
**For the year ended 31 December 2020**

|  | Notes | 2020 $ | 2019 $ |
|---|---|---|---|
| Revenue from contracts with customers | 3 | 23,608,877 | 21,853,300 |
| Other income | 4(a) | 1,458,897 | 1,417,474 |
| Other gains/(losses) – net | 4(b) | (77,982) | (8,420) |
| Employee benefits expense |  | (14,289,286) | (13,171,228) |
| Professional fees |  | (1,932,613) | (1,820,443) |
| Travel expenses |  | (331,259) | (2,390,238) |
| Depreciation expense |  | (707,658) | (862,055) |
| Communications and meeting expenses |  | (741,735) | (786,889) |
| Contribution to APNIC Foundation |  | (760,890) | (762,179) |
| Computer expenses |  | (1,216,809) | (1,067,957) |
| Contributions to ICANN |  | (223,432) | (263,386) |
| Insurance |  | (229,242) | (206,523) |
| Donations and sponsorships |  | (325,889) | (526,745) |
| Occupancy costs |  | (334,244) | (399,470) |
| Other expenses |  | (683,679) | (713,853) |
| **Profit before tax and fair value gain on financial assets** |  | **3,213,056** | **291,388** |
| Fair value gain on financial assets through profit or loss |  | 650,379 | 2,169,284 |
| **Profit before income tax** |  | **3,863,435** | **2,460,672** |
| Income tax expense |  | (411,255) | (556,953) |
| **Profit for the year** |  | **3,452,180** | **1,903,719** |
| Other comprehensive income |  | - | - |
| **Total comprehensive income for the year** |  | **3,452,180** | **1,903,719** |
| **Total comprehensive income for the year attributable to:** |  |  |  |
| **Owners of APNIC Pty Ltd** |  | **3,452,180** | **1,903,719** |

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

4

|  | Notes | 2020 $ | 2019 $ |
|---|---|---|---|
| **ASSETS** |  |  |  |
| **Current assets** |  |  |  |
| Cash and cash equivalents | 5 | 7,081,222 | 4,028,308 |
| Trade and other receivables | 6 | 5,356,419 | 5,643,607 |
| Other current assets | 7 | 780,654 | 836,559 |
| **Total current assets** |  | **13,218,295** | **10,508,474** |
| **Non-current asset** |  |  |  |
| Financial assets | 8 | 31,036,408 | 27,702,841 |
| Property, plant and equipment | 9 | 6,948,694 | 7,149,423 |
| **Total non-current asset** |  | **37,985,102** | **34,852,264** |
| **Total assets** |  | **51,203,397** | **45,360,738** |
| **Current liabilities** |  |  |  |
| Trade and other payables | 11 | 1,369,013 | 1,167,175 |
| Provisions | 12 | 2,233,396 | 1,801,421 |
| Unearned income | 13 | 11,885,376 | 10,570,081 |
| **Total current liabilities** |  | **15,487,785** | **13,538,677** |
| **Non-current liability** |  |  |  |
| Net deferred tax liabilities | 10 | 1,131,984 | 720,729 |
| Provisions | 12 | 406,744 | 376,628 |
| **Total non-current liability** |  | **1,538,728** | **1,097,357** |
| **Total liabilities** |  | **17,026,513** | **14,636,034** |
| **Net assets** |  | **34,176,884** | **30,724,704** |
| **Equity** |  |  |  |
| Contributed equity | 14 | 1 | 1 |
| Retained earnings |  | 34,176,883 | 30,724,703 |
| **Total equity** |  | **34,176,884** | **30,724,704** |

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

5

**APNIC Pty Ltd**
**Statement of Changes in Equity**
**For the year ended 31 December 2020**

| | Share capital $ | 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** |
| Profit for the year | - | 3,452,180 | 3,452,180 |
| Other comprehensive income for the year, net of income tax | | - | - |
| **Total comprehensive income for the year** | **-** | **3,452,180** | **3,452,180** |
| **Balance at 31 December 2020** | **1** | **34,176,883** | **34,176,884** |

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

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

|  | Notes | 2020 $ | 2019 $ |
|---|---|---|---|
| **Cash flows from operating activities** |  |  |  |
| Receipts from customers |  | 24,574,280 | 21,621,399 |
| Payments to suppliers and employees |  | (19,250,306) | (21,658,256) |
| Interest received |  | 70,754 | 148,918 |
| **Net cash from operating activities** | 18 | **5,394,728** | **112,061** |
|  |  |  |  |
| **Cash flows from investing activities** |  |  |  |
| Investment distribution income |  | 853,836 | 832,953 |
| Payments for property, plant and equipment |  | (517,273) | (548,369) |
| Proceeds from sale of property. Plant and equipment |  | 4,811 | 5,563 |
| Purchase of financial assets |  | (2,683,188) | (672,331) |
| **Net cash used in investing activities** |  | **(2,341,814)** | **(382,184)** |
|  |  |  |  |
| **Net increase/(decrease) in cash and cash equivalents** |  | 3,052,914 | (270,123) |
| Cash and cash equivalents at the beginning of the year |  | 4,028,308 | 4,298,431 |
|  |  |  |  |
| **Cash and cash equivalents at the end of the year** | 5 | **7,081,222** | **4,028,308** |

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

7

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

## 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 19 February 2021. 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 this special purpose financial 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*

There are no new or amended standards that became effective in the current year, which would have a significant or material impact on the recognition, measurement or disclosures of the various account balances and classes of transactions pertaining to the Company. Consequently, there is no significant or material effect on the disclosures within these financial statements.

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

## 2. Summary of significant accounting policies (continued)

### 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 Company's 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.

### c) Revenue recognition

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

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

**2. Summary of significant accounting policies (continued)**

**c) Revenue recognition (continued)**

*(i) Member fees (continued)*
Under AASB 1058, if the above fees include a donation element, the same is treated as '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

At present, there are no significant 'donation' components included within member fees. Therefore, there are no donation transactions to be recognised in the financial statements.

*(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.

*(iii) Volunteer Services*
Volunteer services received by the Company are recognised 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 has represented to us that it 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 the AASB 1058.

Under AASB 1058, if the volunteer services include a donation element, the same is treated as '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

At present, there are no significant 'donation' components included in the volunteer services. Therefore, there are no donation transactions to be recognised in the financial statements.

*(iv) 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.

*(v) Dividends*
Dividends received from investments in equity instruments are recognised in profit or loss, as other income, when the Company's right to receive payment is established.

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

## 2. Summary of significant accounting policies (continued)

### d) 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.

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 2020.

### e) 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.

### f) 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.

### g) 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 2020**

## 2. Summary of significant accounting policies (continued)

### g) 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.

### h) 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 other comprehensive income ("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 2020**

## 2. Summary of significant accounting policies (continued)

## h) Investments and other financial assets (continued)

*(iii) Measurement (continued)*
Debt instruments (continued)

- Fair Value through Other Comprehensive Income ("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.

- Fair Value through Profit or Loss ("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.

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 2020**

## 2. Summary of significant accounting policies (continued)

### i) 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.

### j) 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.

### k) Leases

*The Company as lessee*

The Company assesses whether a contract is or contains a lease, at inception of the contract. The Company recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets (such as tablets and personal computers, small items of office furniture and telephones). For these leases, the Company recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Company uses its incremental borrowing rate.

The lease liability is presented as a separate line in the consolidated statement of financial position. The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Company remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- The lease term has changed or there is a significant event or change in circumstances resulting in a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate

- The lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using an unchanged discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used)

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

**k) Leases (continued)**

*The Company as lessee (continued)*

- A lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The Company did not make any such adjustments during the periods presented.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day, less any lease incentives received and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Company expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the consolidated statement of financial position. The Company applies AASB 136 Impairment of Assets to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in the 'Property, plant and equipment' policy.

Variable rents that do not depend on an index or rate are not included in the measurement the lease liability and the right-of-use asset. The related payments are recognised as an expense in the period in which the event or condition that triggers those payments occurs and are included in the line "Other expenses" in profit or loss.

**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 2020**

### 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) Comparative amounts

Where necessary, comparatives have been reclassified and repositioned for consistency with current period disclosures.

### p) 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 $2,269,490 (2019: $3,030,203). Whilst the Company is in a negative working capital position, there are non-current financial assets of $31,036,408 which can be realised on a short-term basis should the Company require funds to meet their current obligations.

The impact of the Coronavirus (COVID-19) pandemic is ongoing and while it has had a small impact on APNIC Pty Ltd up to 31 December 2020, it is not practicable to estimate the potential impact, positive or negative, after the reporting date. The situation is continuing to develop and is dependent on measures imposed by the Australian Government and other countries, such as maintaining social distancing requirements, quarantine, travel restrictions and any economic stimulus that may be provided.

The cash flow forecast prepared for the assessment of going concern, factors in certain estimates and assumptions which would be impacted by developments related to COVID-19 and the impact on the performance of financial assets and customer demand. The financial forecasts in response to COVID-19 have been adjusted, to account for the current and possible future impacts to revenue, expenses and cash flows.

For the year ended 31 December 2020, there was a cash inflow from operating activities amounting to $5,394,728. As at this date, the Company had cash and cash equivalents amounting to $7,081,222 and total net assets of $34,176,884. With the strong cash and financial position, the directors believe it remains appropriate to prepare the financial statements on a going concern basis.

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

### 3. Revenue from contracts with customers

|  | 2020 $ | 2019 $ |
|---|---|---|
| Membership fees | 22,766,728 | 21,061,318 |
| Non-membership fees | 260,483 | 255,751 |
| Sign-up fees | 347,250 | 345,500 |
| Transfer fees | 216,016 | 173,831 |
| Member reactivation fees | 16,000 | 14,500 |
| Non-member reactivation fees | 2,400 | 2,400 |
| **Total revenue from continuing operations** | **23,608,877** | **21,853,300** |

**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:

|  | 2020 $ | 2019 $ |
|---|---|---|
| Revenue from transfer of services over time | 23,392,861 | 21,679,469 |
| Revenue from transfer of services at a point in time | 216,016 | 173,831 |
|  | **23,608,877** | **21,853,300** |

### 4. Other income and expense items

**a) Other income**

|  | 2020 $ | 2019 $ |
|---|---|---|
| Investment distribution income | 853,836 | 832,953 |
| Interest income | 70,754 | 148,918 |
| Sundry income | 534,307 | 435,603 |
|  | **1,458,897** | **1,417,474** |

**b) Other gains/(losses)**

|  | 2020 $ | 2019 $ |
|---|---|---|
| Net loss on disposal of property, plant and equipment | (5,533) | (3,681) |
| Net foreign exchange losses | (72,449) | (4,739) |
|  | **(77,982)** | **(8,420)** |

### 5. Cash and cash equivalents

|  | 2020 $ | 2019 $ |
|---|---|---|
| **Current assets** |  |  |
| Petty cash | 400 | 400 |
| Cash at bank | 7,080,822 | 4,027,908 |
|  | **7,081,222** | **4,028,308** |

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

### 6. Trade and other receivables

|  | 2020<br>$ | 2019<br>$ |
|---|---:|---:|
| **Current assets** | | |
| Trade receivables | 841,633 | 1,273,465 |
| Provision for future expected credit loss | (67,349) | (68,082) |
| | **774,284** | **1,205,383** |
| | | |
| Other receivables | 405,847 | 281,231 |
| GST receivable | 13,334 | - |
| Interest receivable | 12,954 | 6,993 |
| Short term deposits | 4,150,000 | 4,150,000 |
| | **5,356,419** | **5,643,607** |

### 7. Other current assets

|  | 2020<br>$ | 2019<br>$ |
|---|---:|---:|
| **Current assets** | | |
| Prepayments | 779,380 | 834,010 |
| Prepaid taxes | 1,274 | 2,549 |
| | **780,654** | **836,559** |

### 8. Financial assets

|  | 2020<br>$ | 2019<br>$ |
|---|---:|---:|
| **Non-current assets** | | |
| Unlisted securities | | |
| Units in managed investment funds – at fair value | 31,036,408 | 27,702,841 |
| | **31,036,408** | **27,702,841** |

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

### 9. Property, plant and equipment

| | Property related assets | Computer equipment | Total |
|---|---:|---:|---:|
| | $ | $ | $ |
| **At 1 January 2019** | | | |
| Cost | 8,053,187 | 4,541,639 | 12,594,826 |
| Accumulated depreciation | (1,829,829) | (3,292,644) | (5,122,473) |
| | | | |
| Carrying amount | **6,223,358** | **1,248,995** | **7,472,353** |
| | | | |
| **Year ended 31 December 2019** | | | |
| Opening net carrying 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 carrying amount | **6,132,130** | **1,017,293** | **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 carrying amount | **6,132,130** | **1,017,293** | **7,149,423** |
| | | | |
| **Year ended 31 December 2020** | | | |
| Opening carrying amount | 6,132,130 | 1,017,293 | 7,149,423 |
| Additions | 14,408 | 502,865 | 517,273 |
| Disposals | - | (10,344) | (10,344) |
| Depreciation charge | (204,383) | (503,275) | (707,658) |
| | | | |
| Closing carrying amount | **5,942,155** | **1,006,539** | **6,948,694** |
| | | | |
| **At 31 December 2020** | | | |
| Cost | 8,180,474 | 3,705,386 | 11,885,860 |
| Accumulated depreciation | (2,238,319) | (2,698,847) | (4,937,166) |
| | | | |
| Carrying amount | **5,942,155** | **1,006,539** | **6,948,694** |

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

### 10. Deferred tax

|  | 2020 $ | 2019 $ |
|---|---|---|
| Total deferred tax assets | 106,877 | 333,762 |
| Total deferred tax liabilities | (1,238,861) | (1,054,491) |
| **Total net deferred tax liability** | **(1,131,984)** | **(720,729)** |

### 11. Trade and other payables

|  | 2020 $ | 2019 $ |
|---|---|---|
| **Current liabilities** |  |  |
| Trade payables | 530,395 | 466,381 |
| GST payable | - | 22,073 |
| Accrued expenses | 838,618 | 656,721 |
|  | **1,369,013** | **1,167,175** |

### 12. Provisions

|  | 2020 $ | 2019 $ |
|---|---|---|
| *Employee benefits* |  |  |
| Current | 2,233,396 | 1,801,421 |
| Non-current | 406,744 | 376,628 |
|  | **2,640,140** | **2,178,049** |

### 13. Unearned income

|  | 2020 $ | 2019 $ |
|---|---|---|
| **Current liabilities** |  |  |
| Unearned member and non-member fees | 11,879,564 | 10,551,581 |
| Unearned sponsorship income | 5,812 | 18,500 |
|  | **11,885,376** | **10,570,081** |

**APNIC Pty Ltd**
**Notes to the Financial Statements**
**For the year ended 31 December 2020**

## 14. Contributed equity

### a) Share capital

| | 2020 Shares | 2019 Shares | 2020 $ | 2019 $ |
|---|---|---|---|---|
| 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:

| | 2020 $ | 2019 $ |
|---|---|---|
| *Audit and other assurance services* | | |
| Audit of financial statements | 31,000 | 33,100 |
| Other services | 4,000 | 4,000 |
| Total audit and other assurance services | **35,000** | **37,100** |

## 16. Commitments and contingencies

The Company had no commitments nor any contingent liabilities as at 31 December 2020 (2019: nil).

## 17. Events occurring after the reporting period

No matter or circumstance has occurred after the reporting date 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 2020**

18. **Reconciliation of profit for the year to net cash inflows from operating activities**

|  | 2020 $ | 2019 $ |
|---|---|---|
| **Profit for the year** | 3,452,180 | 1,903,719 |
| **Adjustments for:** | | |
| Depreciation | 707,658 | 862,055 |
| Investment distribution income | (853,836) | (832,953) |
| Net loss on sale of non-current assets | 5,533 | 3,678 |
| Fair value gain on non-current financial assets at fair value through profit or loss | (650,379) | (2,169,284) |
| **Movements in working capital:** | | |
| Decrease/(increase) in trade and other receivables | 287,188 | (488,246) |
| Decrease/(increase) in other current assets | 55,905 | (170,891) |
| Decrease/(increase) in deferred tax assets | 226,885 | (47,224) |
| Increase/(decrease) in trade and other payables | 201,838 | (74,586) |
| Increase in unearned income | 1,315,295 | 342,111 |
| Increase in deferred tax liabilities | 184,370 | 604,178 |
| Increase in provisions | 462,091 | 179,504 |
| **Cash generated from operations** | 5,394,728 | 112,061 |

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 2020 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

19 February 2021

**Independent auditor's report to the members of APNIC Pty Ltd**

**{The Auditor's report will be provided by your Auditor.}**

# 2020 Financial Report

*All dollar values are denoted in Australian dollars*

APRICOT 2021
APNIC 51

# Highlights

- Operating surplus of $3.2M exceeded budget by $2.6M ✔

- Revenue $126K above budget ✔

- Expenses $2.5M below budget ✔

- Equity position increased by $3.5M compared to FY2019 ✔

- Fair value surplus on financial assets $650K ✔

- Financial stability measure at 16.88* Months of Operating Expenses ✔

- Successful audit outcome ✔

\* *Calculation is based on the average daily operating expenses of 2020 approved budget as it better reflects APNIC operating cost base in a COVID-free course of business*

**APRICOT 2021**
APNIC 51

# Operating Surplus

| REVENUE and EXPENSES (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Total Revenue | 24,995,326 | 23,266,035 | 7% | 24,869,233 | 126,093 | 1% |
| Total Expenses | 21,782,270 | 22,974,649 | -5% | 24,293,024 | -2,510,754 | -10% |
| Operating Surplus/ (Deficit) | 3,213,056 | 291,386 | 1003% | 576,209 | 2,636,847 | 458% |

APRICOT 2021
APNIC 51

# Surplus

| REVENUE and EXPENSES (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Total Revenue | 24,995,326 | 23,266,035 | 7% | 24,869,233 | 126,093 | 1% |
| Total Expenses | 21,782,270 | 22,974,649 | -5% | 24,293,024 | -2,510,754 | -10% |
| Operating Surplus/ (Deficit) | 3,213,056 | 291,386 | 1003% | 576,209 | 2,636,847 | 458% |
| Fair value gain/ (loss) on financial assets | 650,379 | 2,169,284 | -70% | | 650,379 | - |
| Surplus before Income Tax | 3,863,435 | 2,460,670 | 57% | 576,209 | 3,287,226 | 570% |
| Deferred tax expense | -411,254 | -556,953 | -26% | | -411,254 | - |
| SURPLUS FOR THE YEAR | 3,452,181 | 1,903,717 | 81% | 576,209 | 2,875,972 | 499% |

The investment portfolio has increased by $650K since the end of 2019, recovering from a loss of over $1.2M at the end of March

APRICOT 2021
APNIC 51

# Revenue

| Amount (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Membership fees | 22,766,728 | 21,061,318 | 8% | 22,625,005 | 141,723 | 1% |
| Non-members fees | 260,483 | 255,751 | 2% | 265,300 | -4,817 | -2% |
| Reactivation fees | 18,400 | 16,900 | 9% | 25,000 | -6,600 | -26% |
| Sign-Up fees | 347,250 | 345,500 | 1% | 331,750 | 15,500 | 5% |
| Transfer fees | 216,016 | 173,831 | 24% | 269,400 | -53,384 | -20% |
| Sundry income | 461,859 | 430,863 | 7% | 387,778 | 74,081 | 19% |
| **Operating Revenue** | **24,070,736** | **22,284,164** | **8%** | **23,904,233** | **166,503** | **1%** |
| Investment income | 924,590 | 981,871 | -6% | 965,000 | -40,410 | -4% |
| **TOTAL REVENUE** | **24,995,326** | **23,266,035** | **7%** | **24,869,233** | **126,093** | **1%** |

APRICOT 2021
APNIC 51

# Revenue

**Overall revenue in line with budget**

**Operating Revenue:**

**Membership fees and Sign-Up fees**
- These fees finished in line with recent forecasts and slightly more than budget with highlights as follows:
  - New members for the year was 823 (69 per month), slightly higher than the budget of 790
  - Average fees for new members was $1,452 compared to the budget assumption of $1,280
  - 31.7% of all new members were originated from LDC economies, compared to the budget assumption of 30.5%

**Sundry Income**
- These include funding from lab research activities, Foundation receipts and fees from training registrations
  - Funding received from Foundation and labs research activities were higher than budget
  - COVID-19 travel restrictions impacted heavily on budgeted revenue for sponsorship and registration fees from conference and training events
  - There were funds provided from the not-for-profit business stimulus package paid by the Australian Government as part of the response to the impact of COVID-19

**APRICOT 2021**
**APNIC 51**

# Revenue cont'd

**Investment Income:**

Total investment income achieved $925K, $40K below budget.  Whilst investment income was lower than budget, there was $650K capital growth in the investment portfolio over the year.

**Investment portfolio income** tracked slightly lower than the budget estimate, achieving $853K against the budget of $865K.

- The APNIC portfolio has achieved a return of 4.46% compared to the benchmark (CPI +2.5%) of 3.15%. Since inception, the portfolio has returned 5.56% against the benchmark (CPI +2.5%) of 4.25%.

**Interest income** (from cash reserves) was $71K, $29K below budget.

- Interest rates for cash deposits continued to fall in 2020, term deposits matured during the year were reinvested at lower rates, impacting interest income.

**APRICOT 2021**
**AP**NIC **51**

# Revenue cont'd

**Investment Income against benchmarks:**

### Market Value as at 31 December 2020

|  | Market Value |
|---|---|
| APNIC Portfolio | A$31,040,776 |

### Performance as of 31 December 2020

| APNIC Portfolio | | | | |
|---|---|---|---|---|
|  | Portfolio | Benchmark | Relative | CPI + 2.5% |
| Month | 0.33% | 0.50% | -0.17% | 0.27% |
| 3 Months | 3.89% | 4.06% | -0.17% | 0.80% |
| Year To Date | 4.46% | 5.32% | -0.86% | 3.15% |
| 1 Year | 4.46% | 5.32% | -0.86% | 3.15% |
| 3 Years pa | 5.97% | 6.14% | -0.17% | 3.95% |
| Since Inception pa | 5.56% | 5.81% | -0.25% | 4.25% |

* Performance is after fees but before franking

Source: Credit Suisse 2020 Annual Investment Report

**APRICOT 2021**
APNIC 51

# Expenses

| EXPENSES (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Bank service fees | 241,477 | 207,759 | 16% | 207,200 | 34,277 | 17% |
| Communication expenses | 697,060 | 570,832 | 22% | 753,550 | -56,490 | -7% |
| Computer expenses | 1,216,809 | 1,067,957 | 14% | 1,154,458 | 62,351 | 5% |
| Contribution to APNIC Foundation | 760,890 | 762,179 | -0% | 750,463 | 10,427 | 1% |
| Depreciation expense | 707,658 | 862,055 | -18% | 862,000 | -154,342 | -18% |
| Doubtful debt expenses | -733 | 24,302 | -103% | 25,000 | -25,733 | -103% |
| ICANN contract fee | 223,432 | 263,386 | -15% | 238,000 | -14,568 | -6% |
| Insurance expense | 229,242 | 206,523 | 11% | 231,833 | -2,591 | -1% |
| Meeting and training expenses | 135,335 | 425,704 | -68% | 561,100 | -425,765 | -76% |
| Membership fees expenses | 62,381 | 58,241 | 7% | 54,029 | 8,352 | 15% |
| Office operating expenses | 290,543 | 342,806 | -15% | 391,300 | -100,757 | -26% |
| Postage & delivery | 26,198 | 35,060 | -25% | 39,700 | -13,502 | -34% |
| Printing & photocopy | 32,428 | 36,145 | -10% | 40,500 | -8,072 | -20% |
| Professional fees | 1,932,613 | 1,820,443 | 6% | 2,051,021 | -118,408 | -6% |
| Recruitment expense | 165,662 | 95,357 | 74% | 145,000 | 20,662 | 14% |
| Salaries and personnel expenses | 14,070,813 | 12,789,661 | 10% | 13,561,230 | 509,583 | 4% |
| Sponsorship and Publicity expenses | 437,724 | 627,766 | -30% | 679,640 | -241,916 | -36% |
| Staff training/ Conference expenses | 218,474 | 381,567 | -43% | 175,000 | 43,474 | 25% |
| Translation expenses | 3,007 | 6,668 | -55% | 20,000 | -16,993 | -85% |
| Travel expenses | 331,259 | 2,390,238 | -86% | 2,352,000 | -2,020,741 | -86% |
| **TOTAL EXPENSES** | 21,782,270 | 22,974,649 | -5% | 24,293,024 | -2,510,754 | -10% |

APRICOT 2021
APNIC 51

# Expenses

Total expenses was below budget by **10% ($2.5M)**. Major variance are:

- **Bank service fees (+17%) –** more members continue to move to paying fees via PayPal and credit cards

- **Communication expenses (-7%) –** savings due to the delayed start in Network presence and peering projects

- **Computer expenses (+5%) –** due to increased expenditure on Academy virtual lab licensing, and increased advertising and cloud computing costs for research

# Expenses cont'd

- **Depreciation Expenses (-18%) –** due to reduced capital expenditure as more services are moved to the cloud, and reduced expenditure on root sever deployments due to COVID-19 restrictions

- **Meeting and training expenses (-76%) –** due to COVID restrictions, since March all training and other scheduled events were delivered remotely, and the APNIC conference planned for Dhaka was converted to an online format resulting in significant savings

- **Office operating expenses (-26%) –** due to reduced office running costs during the COVID-19 shutdown period

APRICOT 2021
APNIC 51

# Expenses cont'd

- **Professional fees (-6%) –** due to reduced use of community trainers and development work on face-face training delivery and some recovery of APIDT set-up costs incurred in 2019.

- **Recruitment expense (+14%)** – due to increased reliance on recruitment agencies and the associated fees

- **Salaries and Personnel expenses (4%) –** due to conversion of long-term casuals to staff positions, increased accumulation of leave provisions, and increased allocation to annual bonuses (1 week additional to the budget provision of 2.5 weeks).

**APRICOT 2021**
APNIC 51

# Expenses cont'd

- **Sponsorship and publicity expenses (-36%)** – due to COVID-19 travel restrictions impacting APNIC and NRO activities.

- **Travel expenses (-86%) –** below budget by more than $2M, due to COVID-19 travel restrictions.

**APRICOT 2021**
APNIC 51

# Capital Expenditure 2020

| CAPITAL (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Equipment & Software | 502,865 | 435,488 | 15% | 683,600 | -180,735 | -26% |
| Office Furniture & Fittings | 14,408 | 112,879 | -87% | 55,000 | -40,592 | -74% |
| **Total - Capital Expenditure** | **517,274** | **548,368** | **-6%** | **738,600** | **-221,326** | **-30%** |

- Major variances on capital expenditure related to M-Root deployment, IXP and other Root sever deployments were delayed due to COVID-19 restrictions

APRICOT 2021
APNIC 51

# Expenses by Pillars



Actual vs Budget by Pillars
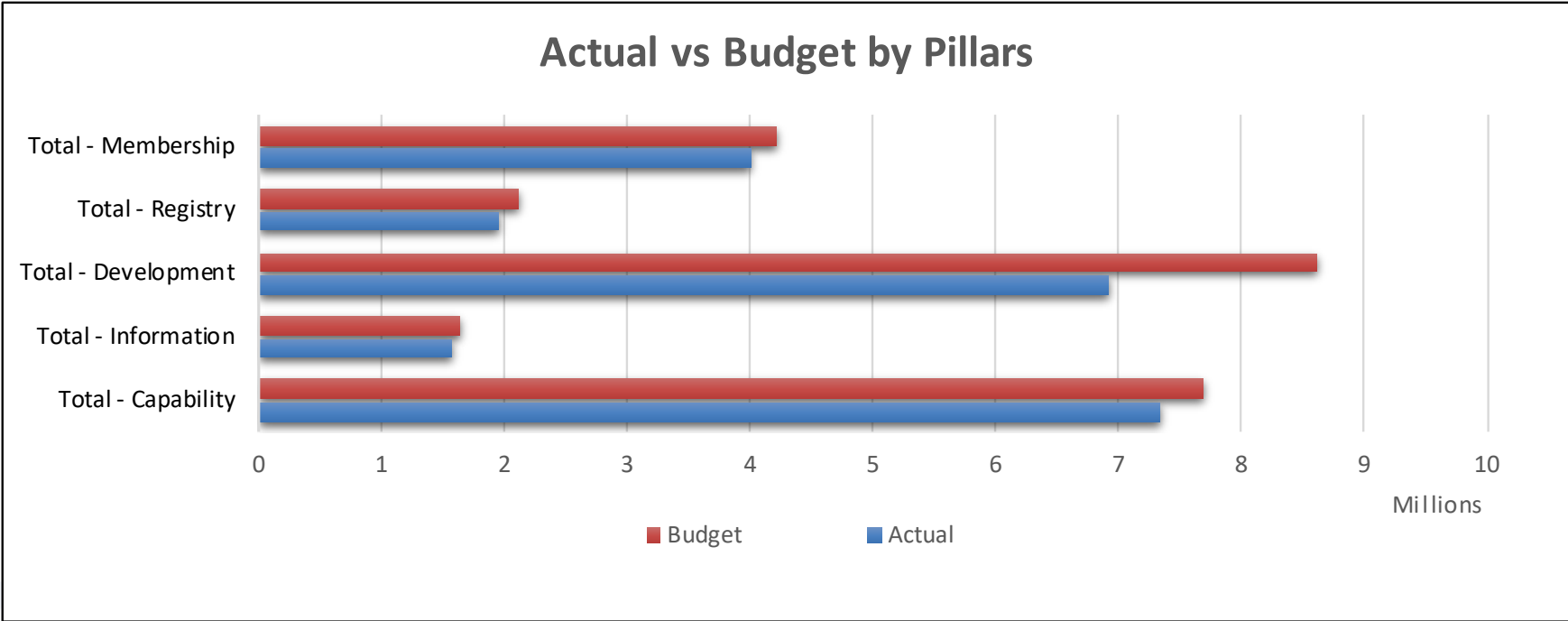
# Expenses by Pillars

| EXPENSES (AUD) | Actual 2020 | Budget 2020 | Variance $ | Variance % |
|---|---|---|---|---|
| Member services | 2,301,059 | 2,461,629 | -160,570 | -7% |
| Membership products | 1,256,789 | 1,127,922 | 128,867 | 11% |
| Membership reporting | 447,994 | 633,245 | -185,251 | -29% |
| **Total - Membership** | **4,005,842** | **4,222,796** | **-216,954** | **-5%** |
| Registration services | 664,335 | 645,389 | 18,946 | 3% |
| Registry products | 909,329 | 825,807 | 83,522 | 10% |
| Policy development | 381,191 | 640,320 | -259,129 | -40% |
| **Total - Registry** | **1,954,855** | **2,111,516** | **-156,661** | **-7%** |
| APNIC conferences | 1,082,485 | 1,405,301 | -322,816 | -23% |
| Foundation support | 972,229 | 865,463 | 106,766 | 12% |
| Community engagement | 1,776,609 | 2,493,689 | -717,080 | -29% |
| Community participation | 194,046 | 203,283 | -9,237 | -5% |
| APNIC academy | 1,875,366 | 2,330,523 | -455,157 | -20% |
| Internet infrastructure support | 1,009,209 | 1,324,458 | -315,249 | -24% |
| **Total - Development** | **6,909,943** | **8,622,717** | **-1,712,774** | **-20%** |
| Information products | 878,750 | 794,498 | 84,252 | 11% |
| Research and analysis | 696,443 | 849,155 | -152,712 | -18% |
| **Total - Information** | **1,575,193** | **1,643,653** | **-68,460** | **-4%** |
| Internal technical infrastructure | 3,152,562 | 3,140,201 | 12,361 | 0% |
| Finance and business services | 1,821,675 | 1,999,138 | -177,463 | -9% |
| Employee experience | 1,618,344 | 1,692,464 | -74,120 | -4% |
| Governance | 743,856 | 860,539 | -116,683 | -14% |
| **Total - Capability** | **7,336,436** | **7,692,342** | **-355,906** | **-5%** |
| **Total - Expenses** | **21,782,270** | **24,293,024** | **-2,510,754** | **-10%** |

# Expenses by Pillars

**Total expenses was below budget by 10% ($2.5M). Major variance are:**

**Membership (-5%):**
- Membership engagement events were delivered remotely since March due to COVID-19 restrictions, this resulted in savings of travel expenses. Some of these savings was offset by increase in professional fees for full stack development consultants to work on projects brought forward during 2020.

**Registry (-7%):**
- Sponsorship of events was reduced during the year and registry outreach activities were converted to online due to COVID-19 travel restrictions, this resulted in savings on sponsorship and travel expenses**.** Some of these savings was offset by increase in professional fees paid for Resource Tagged Attestations (RTAs) development.

**Development (-20%):**
- All training and other scheduled events were delivered remotely since March and the APNIC conference planned for Dhaka was converted to an online format. This give rise to a significant reduction in travel expenses, savings on meeting and training expenses as well as professional fees on external trainers' engagement.

**Capability (-5%):**
- Members' outreach and corporate teams' overseas service engagement activities were conducted remotely due to COVID-19 travel restrictions, this gave rise to savings on travel expenses. There were further savings on legal and governance consulting services.

**APRICOT 2021**
APNIC 51

# Statement of Financial Position

| Amount (AUD) | Year End 2020 | Year End 2019 | Change | % Change |
|---|---|---|---|---|
| **ASSETS** | | | | |
| Total Current Assets | 13,204,960 | 10,508,471 | 2,696,489 | 26% |
| Total Non-Current Assets | 38,091,979 | 35,186,026 | 2,905,953 | 8% |
| **TOTAL ASSETS** | 51,296,939 | 45,694,497 | 5,602,442 | 12% |
| **LIABILITIES** | | | | |
| Total Current Liabilities | 15,474,451 | 13,538,676 | 1,935,775 | 14% |
| Total Non-Current Liabilities | 1,645,605 | 1,431,119 | 214,486 | 15% |
| **TOTAL LIABILITIES** | 17,120,056 | 14,969,795 | 2,150,261 | 14% |
| **NET ASSETS/ TOTAL EQUITY** | 34,176,883 | 30,724,702 | 3,452,181 | 11% |

# APNIC's Reserve
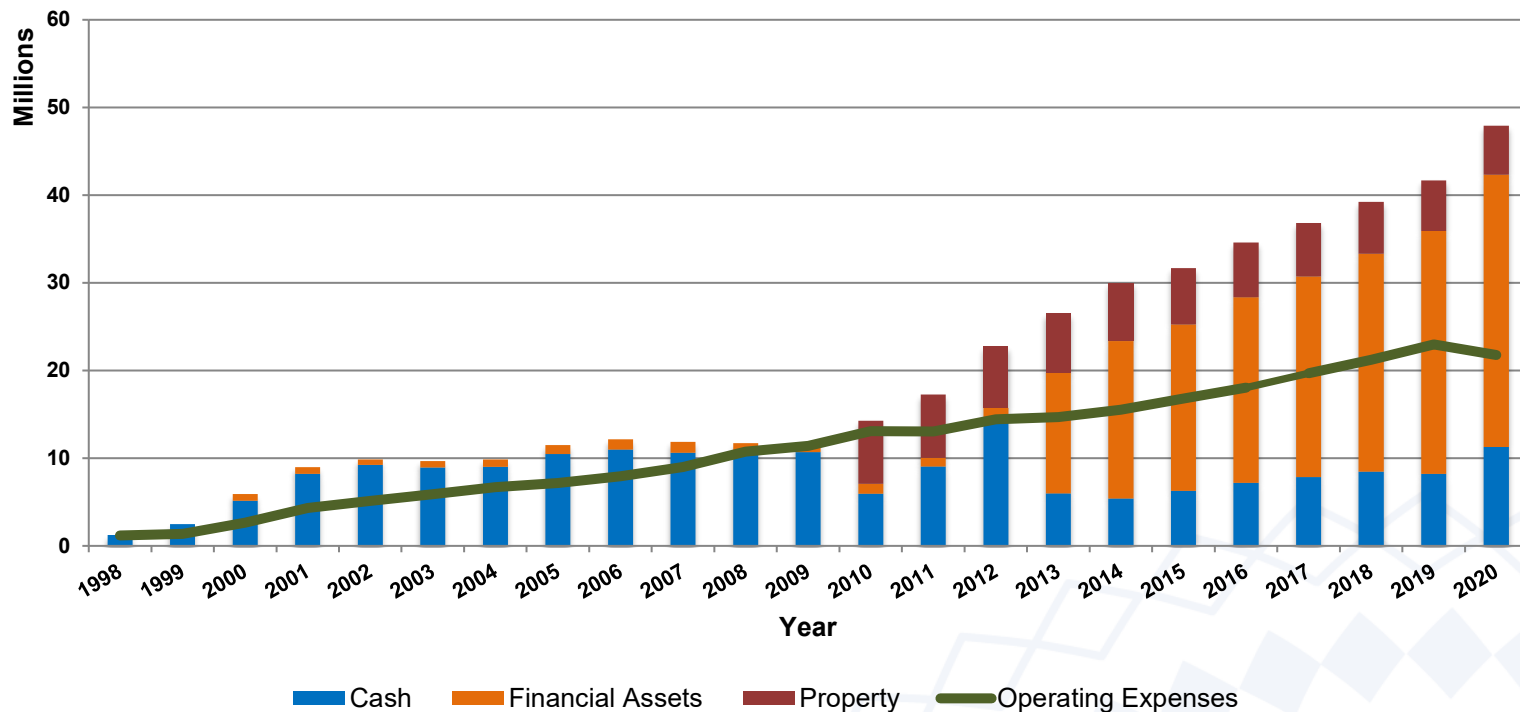


All amounts in AUD – Australian Dollars

# Financial Stability Measure

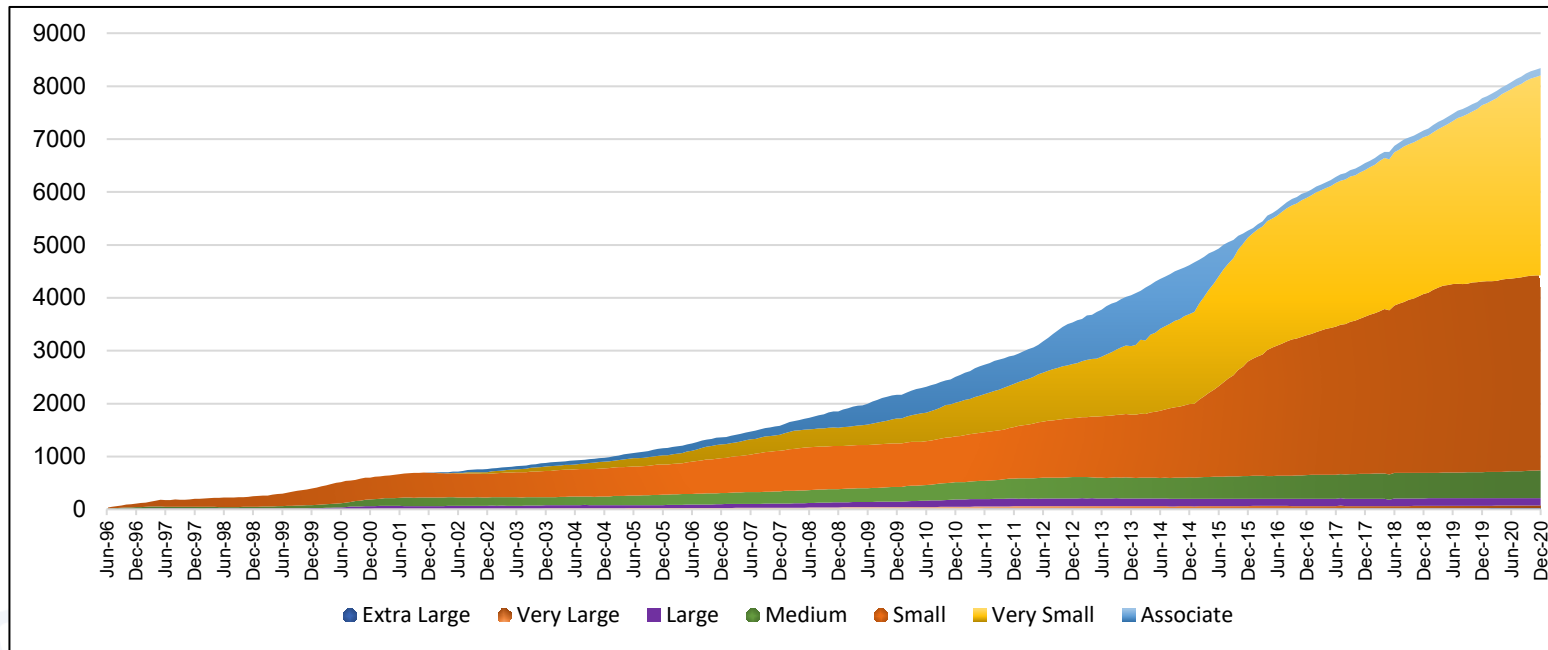|  | 2020 | 2019 | 2018 |
|---|---|---|---|
| Total Equity (AUD) | $34,176,883 | $30,724,702 | $28,820,985 |
| % Equity covered by Cash/ Cash Equivalents | 123.8% | 116.9% | 115.6% |
| Daily Operating Expenses (AUD) * | $66,374 | $62,944 | $58,122 |
| **Number of Months of expenses covered by Equity** | 16.88 | 16.05 | 16.30 |

**Target of 18 months of Operating expenses**

*\* Calculation is based on the average daily operating expenses of 2020 approved budget as it better reflects APNIC operating cost base in a COVID-free course of business.*
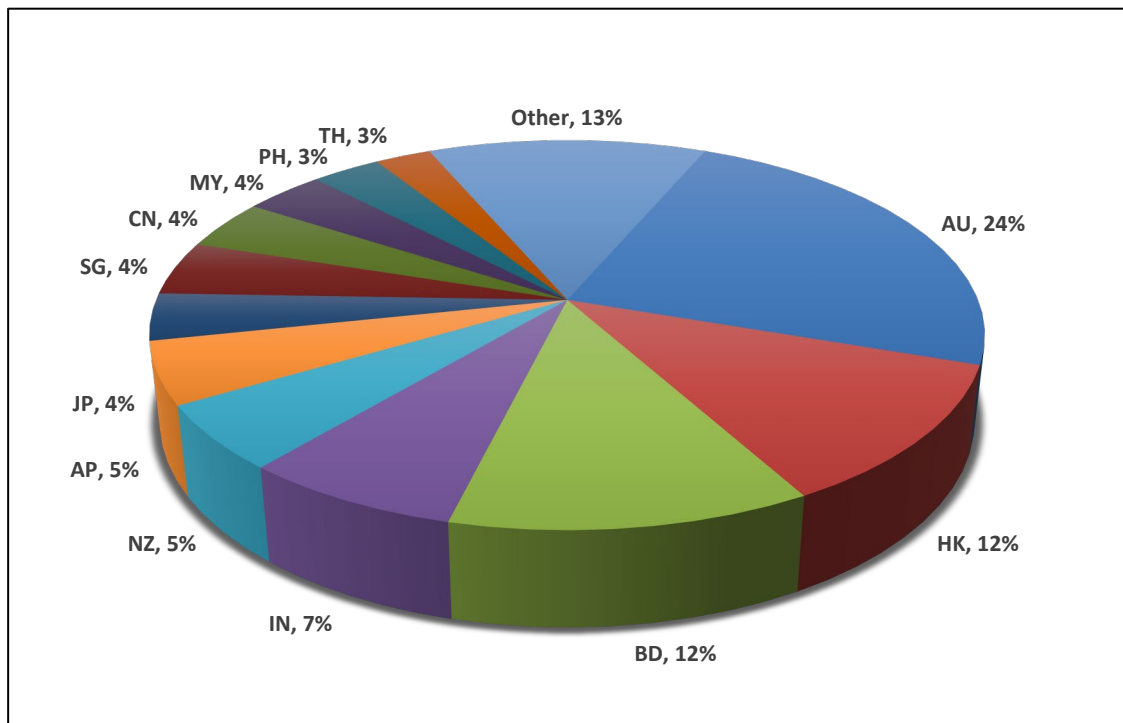
**APRICOT 2021**
APNIC 51

# Membership Growth

| Membership fees | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| Extra Large | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 26 |
| Very Large | 43 | 40 | 44 | 43 | 41 | 44 | 46 | 48 |
| Large | 147 | 142 | 137 | 138 | 138 | 143 | 143 | 143 |
| Medium | 392 | 402 | 431 | 449 | 473 | 483 | 493 | 521 |
| Small | 1,198 | 1,388 | 2,165 | 2,643 | 2,971 | 3,376 | 3,601 | 3,685 |
| Very Small | 1,294 | 1,701 | 2,336 | 2,590 | 2,769 | 2,967 | 3,334 | 3,778 |
| Associate | 957 | 924 | 133 | 109 | 132 | 125 | 135 | 140 |
| Total | 4,051 | 4,618 | 5,268 | 5,994 | 6,547 | 7,162 | 7,776 | 8,341 |
| New & Reactivation Adjust | 813 | 805 | 968 | 1,048 | 849 | 825 | 838 | 833 |
| Close | 296 | 238 | 318 | 322 | 296 | 210 | 224 | 268 |
| Total | 517 | 567 | 650 | 726 | 553 | 615 | 614 | 565 |
| Average Monthly Gain | 43 | 47 | 54 | 61 | 46 | 51 | 51 | 47 |

APRICOT 2021
APNIC 51

# Membership Growth

# Membership by Economy

# Audit

**Audit Rotation Policy:**

- Deloitte undertook the audit of 2020 accounts, the second year of their 5-year term as APNIC auditor

**Audit Outcome:**

- Deloitte issued unmodified audit report:

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

  - Comply with the relevant accounting standards

  - Some observations to be considered in 2021

# January 2021 Financial Report

*All dollar values are denoted in Australian dollars*

APRICOT 2021
APNIC 51

# Highlights

- Operating surplus of $693K exceeded budget by $193k

- Revenue $59K below budget

- Expenses $559K below budget

- Equity position increased by $533K as compare to FY2020

- Fair value loss on financial assets $160K

- Financial stability measure at 16.33* Months of Operating Expenses

\* *Calculation is based on the average daily operating expenses of 2021 approved budget as it better reflects APNIC operating cost base in a COVID-free course of business.*

APRICOT 2021
APNIC 51

# January 2021 Financial Status

| | YTD Actual Jan 2021 | YTD Actual Jan 2020 | Variance % | YTD Budget Jan 2021 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| TOTAL REVENUE | 2,150,377 | 1,950,397 | 10% | 2,138,525 | 11,852 | 1% |
| TOTAL EXPENSES | 1,457,321 | 1,661,985 | -12% | 2,016,131 | -558,810 | -28% |
| Operating Surplus/ (Deficit) | 693,055 | 288,412 | 140% | 122,394 | 570,662 | 466% |
| Fair value gain/ (loss) on financial assets | -159,687 | 739,407 | -122% | | -159,687 | |
| SURPLUS/ (DEFICIT) | 533,368 | 1,027,819 | -48% | 122,394 | 410,975 | 336% |

**2021**
**APRICOT**
**APNIC 51**

# Thank you

APRICOT 2021
APNIC 51

# Annual Financial Report

# (in AUD)

## 2020

**APNIC**

# Table of Contents

# 1      Statement of Financial Position

| Amount (AUD) | Year-End 2020 | Year-End 2019 | % Change |
|---|---|---|---|
| **CURRENT ASSETS** | | | |
| Cash/ Term deposits | 11,281,050 | 8,219,434 | *37%* |
| Receivables | 1,130,303 | 1,445,486 | *-22%* |
| Others | 793,606 | 843,550 | *-6%* |
| **TOTAL CURRENT ASSETS** | **13,204,960** | **10,508,471** | *26%* |
| **NON-CURRENT ASSETS** | | | |
| Other financial assets | 31,036,408 | 27,702,841 | *12%* |
| Property, plant and equipment | 6,948,694 | 7,149,423 | *-3%* |
| Deferred tax assets | 106,877 | 333,762 | *-68%* |
| **TOTAL NON-CURRENT ASSETS** | **38,091,979** | **35,186,026** | *8%* |
| **TOTAL ASSETS** | **51,296,939** | **45,694,497** | *12%* |
| **CURRENT LIABILITIES** | | | |
| Payables | 1,355,679 | 1,167,175 | *16%* |
| Provisions | 2,233,396 | 1,801,421 | *24%* |
| Unearned revenue | 11,885,376 | 10,570,081 | *12%* |
| **TOTAL CURRENT LIABILITES** | **15,474,451** | **13,538,676** | *14%* |
| | | | |
| **NON - CURRENT LIABILITIES** | | | |
| Deferred tax liabilities | 1,238,861 | 1,054,491 | *17%* |
| Total provisions | 406,744 | 376,628 | *8%* |
| **TOTAL NON-CURRENT LIABILITIES** | **1,645,605** | **1,431,119** | *15%* |
| **TOTAL LIABILITIES** | **17,120,056** | **14,969,795** | *14%* |
| **NET ASSETS** | **34,176,883** | **30,724,702** | *11%* |
| | | | |
| **EQUITY** | | | |
| Share capital | 1 | 1 | *0%* |
| Retained earnings | 30,724,701 | 28,820,984 | *7%* |
| Net Income | 3,452,181 | 1,903,717 | *81%* |
| **TOTAL EQUITY** | **34,176,883** | **30,724,702** | *11%* |

**Table 1. Statement of Financial Position**

## Notes to Financial Position (Table 1):

The Statement of Financial Position shows that APNIC's net equity position increased by 11% ($3.5m) compared to the end of last year.

- The cash position has increased 37% since the end of 2019, as COVID-19 restrictions caused a reduction in expenses when compared to the 2020 Activity Plan, the major variances are related to travel and meeting costs.

- The investment portfolio has recovered strongly since March and an additional $2M AUD was transferred from the operating account into the investment fund.

- Depreciation and amortisation expenses are reducing Property, Plant & Equipment at a higher rate than the expenditure on Capital equipment.

# 2      Statement of Income

This annual financial report incorporates 2020 financial results compare with the budget and last year results.

| Amount (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Membership fees | 22,766,728 | 21,061,318 | 8% | 22,625,005 | 141,723 | 1% |
| Non-members fees | 260,483 | 255,751 | 2% | 265,300 | -4,817 | -2% |
| Reactivation fees | 18,400 | 16,900 | 9% | 25,000 | -6,600 | -26% |
| Sign-Up fees | 347,250 | 345,500 | 1% | 331,750 | 15,500 | 5% |
| Transfer fees | 216,016 | 173,831 | 24% | 269,400 | -53,384 | -20% |
| Sundry income | 461,859 | 430,863 | 7% | 387,778 | 74,081 | 19% |
| **Operating Revenue** | **24,070,736** | **22,284,164** | **8%** | **23,904,233** | **166,503** | **1%** |
| Investment income | 924,590 | 981,871 | -6% | 965,000 | -40,410 | -4% |
| **TOTAL REVENUE** | **24,995,326** | **23,266,035** | **7%** | **24,869,233** | **126,093** | **1%** |
| Bank service fees | 241,477 | 207,759 | 16% | 207,200 | 34,277 | 17% |
| Communication expenses | 697,060 | 570,832 | 22% | 753,550 | -56,490 | -7% |
| Computer expenses | 1,216,809 | 1,067,957 | 14% | 1,154,458 | 62,351 | 5% |
| Contribution to APNIC Foundation | 760,890 | 762,179 | -0% | 750,463 | 10,427 | 1% |
| Depreciation expense | 707,658 | 862,055 | -18% | 862,000 | -154,342 | -18% |
| Doubtful debt expenses | -733 | 24,302 | -103% | 25,000 | -25,733 | -103% |
| ICANN contract fee | 223,432 | 263,386 | -15% | 238,000 | -14,568 | -6% |
| Insurance expense | 229,242 | 206,523 | 11% | 231,833 | -2,591 | -1% |
| Meeting and training expenses | 135,335 | 425,704 | -68% | 561,100 | -425,765 | -76% |
| Membership fees | 62,381 | 58,241 | 7% | 54,029 | 8,352 | 15% |
| Office operating expenses | 290,543 | 342,806 | -15% | 391,300 | -100,757 | -26% |
| Postage & delivery | 26,198 | 35,060 | -25% | 39,700 | -13,502 | -34% |
| Printing & photocopy | 32,428 | 36,145 | -10% | 40,500 | -8,072 | -20% |
| Professional fees | 1,932,613 | 1,820,443 | 6% | 2,051,021 | -118,408 | -6% |
| Recruitment expense | 165,662 | 95,357 | 74% | 145,000 | 20,662 | 14% |
| Salaries and personnel expenses | 14,070,813 | 12,789,661 | 10% | 13,561,230 | 509,583 | 4% |
| Sponsorship and Publicity expenses | 437,724 | 627,766 | -30% | 679,640 | -241,916 | -36% |
| Staff training/ Conference expenses | 218,474 | 381,567 | -43% | 175,000 | 43,474 | 25% |
| Translation expenses | 3,007 | 6,668 | -55% | 20,000 | -16,993 | -85% |
| Travel expenses | 331,259 | 2,390,238 | -86% | 2,352,000 | -2,020,741 | -86% |
| **TOTAL EXPENSES** | **21,782,270** | **22,974,649** | **-5%** | **24,293,024** | **-2,510,754** | **-10%** |
| **Operating Surplus** | **3,213,056** | **291,386** | **1003%** | **576,209** | **2,636,847** | **458%** |
| Fair value surplus on financial assets | 650,379 | 2,169,284 | -70% | | 650,379 | - |
| **Surplus Before Tax** | **3,863,435** | **2,460,670** | **57%** | **576,209** | **3,287,226** | **570%** |
| Deferred tax expense | -411,254 | -556,953 | -26% | | -411,254 | - |
| **SURPLUS FOR THE YEAR** | **3,452,181** | **1,903,717** | **81%** | **576,209** | **2,875,972** | **499%** |

**Table 2. Statement of Income**

**Notes to Revenue (Table 2):** Operating revenue end with 1% more than Budget.

- **Investment income –** Interest income was slightly below budget as cash deposit rates continue to be lower than anticipated in the budget.
  - The total value of the APNIC investment portfolio has increased by $650k since the end of 2019, recovering from a decrease of over $1.2M at the end March.

- Since inception in August 2013, the portfolio has returned 5.56% (after fees) against the benchmark (CPI + 2.5%) of 4.25%.

▪ **Membership fees and Sign-Up fees –** These fees finished in line with recent forecast and more than budget.  Membership growth in 2020 is tracking above budget projections.
  - New members for the year was 823, above the budget estimate of 790. There were 268 closures over the period, over the budget estimate of 240.
  - At the end of December, the average annual fee for closed accounts was $1,950, compared to the budget assumption of $1,544. Average fees for new Members over the period was $1,452, compared to the budget assumption of $1,280. In 2020, 31.7% of all new members are eligible for the LDC discount, compared to the budget assumption of 30.5%.
  - Overall revenue from Membership Fees and Sign-up Fees were more than budget, while Transfer Fees below budget at the end of 2020.

▪ **Sundry income –** Includes Meeting and Training/Workshop Registrations, Sponsorship, Foundation income and funding for Labs research activities.
  - COVID-19 travel restrictions impacted heavily on budgeted revenue for sponsorship and registration fees from training and conference events.
  - Funding received for Labs research activities are higher than budget.
  - There were funds provided from the not-for-profit business stimulus package paid by the Australian Government as part of the response to the impact of COVID-19.

## Notes to Expenses (Table 2):

Total expenses were below budget by 10% in 2020. Major variances include:

- **Bank service fees (17%) –** as more members moved to paying fees via PayPal and credit cards.

- **Communication expenses (7%)** – savings due to the delay start in Network presence and peering projects.

- **Computer expenses (5%) –** due to increased expenditure on Academy virtual lab licensing, and increased advertising and cloud computing costs for research.

- **Depreciation Expenses (-18%) –** due to reduced Capital expenditure as more services are moved to the cloud, and reduced expenditure on root sever deployments due to COVID-19 restrictions.

- **Meeting and training expenses (-76%) –** due to COVID restrictions, since March all training and other scheduled events were delivered remotely, and the APNIC conference planned for Dhaka was converted to an online format resulting in significant savings.

- **Office operating expenses (-26%) –** due to reduced office running costs during the COVID-19 shutdown period.

- **Professional fees (-6%) –** due to reduced use of community trainers and development work on face-face training delivery.

- **Recruitment expense (14%)** – due to agency fees, overseas recruitment and relocation expenses.

- **Salaries and Personnel expenses (4%) –** due to conversion of long-term casuals to staff positions, increased accumulation of leave provisions, and increased allocation to annual bonuses (1 week additional to the budget provision of 2.5 weeks).

- **Sponsorship and publicity expenses (-36%)** – due to COVID-19 travel restrictions impacting APNIC and NRO activities.

- **Travel expenses (-86%) –** below budget by more than $2M, due to COVID-19 travel restrictions.

## Notes to Operating Surplus/(Deficit) (Table 2):

The Operating Surplus ended $2.6M higher than budget in 2020. The Net Surplus finished at $2.9M higher, due to the unrealised gain in the fair value of the APNIC investment portfolio and deferred tax expenses.

# 3      Capital Expenditure

The table below provides overview of 2020 capital expenditure.

| CAPITAL (AUD) | Actual 2020 | Actual 2019 | Variance % | Budget 2020 | Budget Variance $ | Budget Variance % |
|---|---|---|---|---|---|---|
| Equipment & Software | 502,865 | 435,488 | 15% | 683,600 | -180,735 | -26% |
| Office Furniture & Fittings | 14,408 | 112,879 | -87% | 55,000 | -40,592 | -74% |
| Total - Capital Expenditure | 517,274 | 548,368 | -6% | 738,600 | -221,326 | -30% |

Table 3. Capital Expenditure

## Notes to Capital Expenditure (Table 3):

Major variances on capital expenditure related to M-Root deployment and IXP and other Root sever deployments were delayed due to COVID-19 restrictions.

# 4 Activity Reporting

## 4.1 Expense by Activity Pillars and Workstreams

| EXPENSES (AUD) | Actual 2020 | Budget 2020 | Variance $ | Variance % |
|---|---|---|---|---|
| Member services | 2,301,059 | 2,461,629 | -160,570 | -7% |
| Membership products | 1,256,789 | 1,127,922 | 128,867 | 0 |
| Membership reporting | 447,994 | 633,245 | -185,251 | -29% |
| **Total - Membership** | **4,005,842** | **4,222,796** | **-216,954** | **-5%** |
| Registration services | 664,335 | 645,389 | 18,946 | 0 |
| Registry products | 909,329 | 825,807 | 83,522 | 0 |
| Policy development | 381,191 | 640,320 | -259,129 | -40% |
| **Total - Registry** | **1,954,855** | **2,111,516** | **-156,661** | **-7%** |
| APNIC conferences | 1,082,485 | 1,405,301 | -322,816 | -23% |
| Foundation support | 972,229 | 865,463 | 106,766 | 0 |
| Community engagement | 1,776,609 | 2,493,689 | -717,080 | -29% |
| Community participation | 194,046 | 203,283 | -9,237 | -5% |
| APNIC academy | 1,875,366 | 2,330,523 | -455,157 | -20% |
| Internal infrastructure support | 1,009,209 | 1,324,458 | -315,249 | -24% |
| **Total - Development** | **6,909,943** | **8,622,717** | **-1,712,774** | **-20%** |
| Information products | 878,750 | 794,498 | 84,252 | 0 |
| Research and analysis | 696,443 | 849,155 | -152,712 | -18% |
| **Total - Information** | **1,575,193** | **1,643,653** | **-68,460** | **-4%** |
| Internal technical infrastructure | 3,152,562 | 3,140,201 | 12,361 | 0 |
| Finance and business services | 1,821,675 | 1,999,138 | -177,463 | -9% |
| Employee experience | 1,618,344 | 1,692,464 | -74,120 | -4% |
| Governance | 743,856 | 860,539 | -116,683 | -14% |
| **Total - Capability** | **7,336,436** | **7,692,342** | **-355,906** | **-5%** |
| **Total - Expenses** | **21,782,270** | **24,293,024** | **-2,510,754** | **-10%** |

**Table 4. Expense by Activity Pillars and Workstreams**

## Notes to Activity Reporting (Table 4):

This report includes the new activity grouping into pillars and workstreams as outlined in the Strategic Plan and Activity Plan for 2020. At the end of December, expenses for all pillars are below budget, reflecting the overall reduction in expenses caused by COVID-19 pandemic.
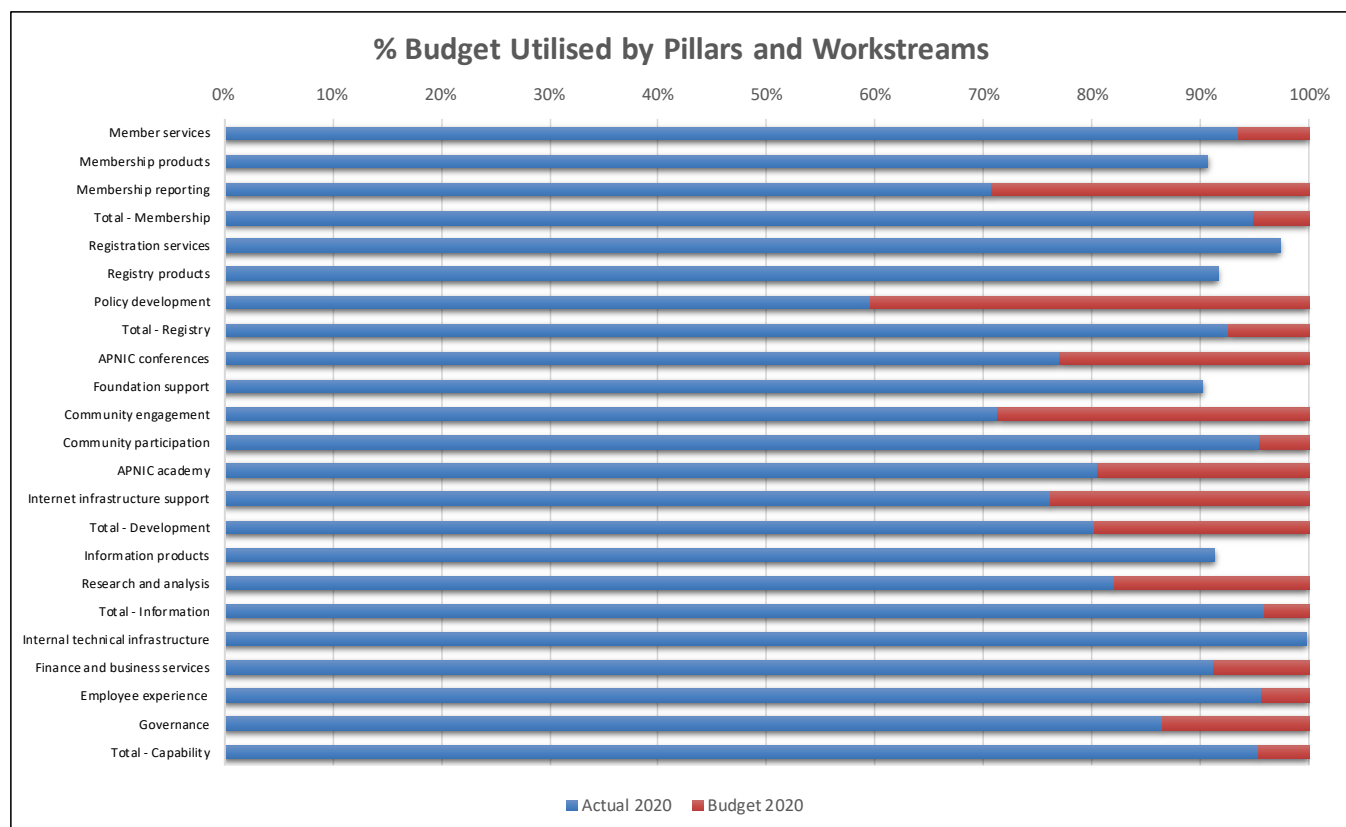
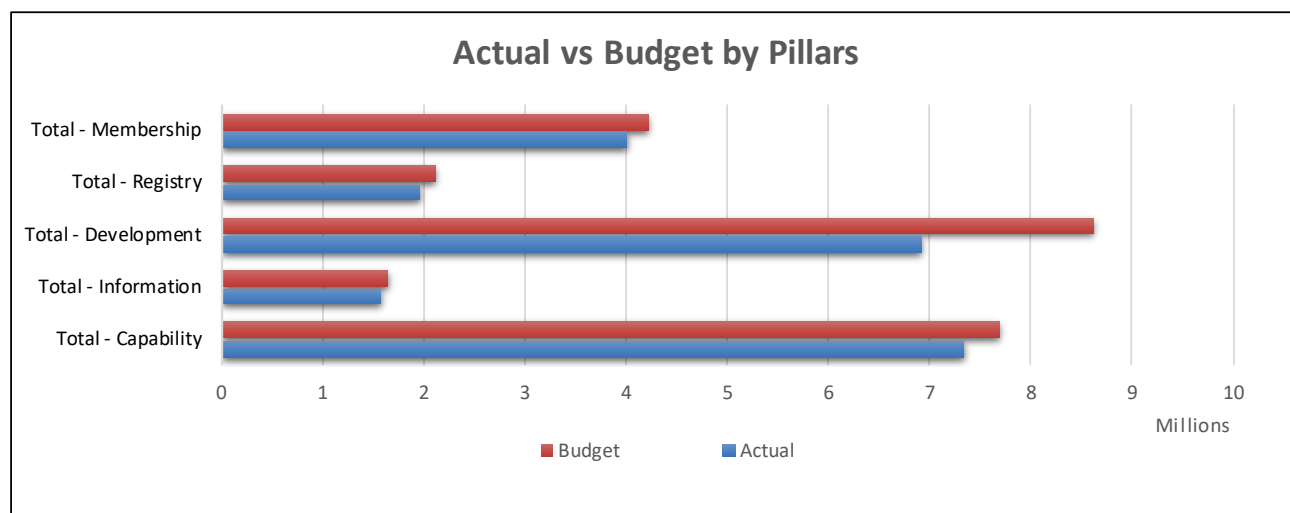**Figure 1. % Budget Utilised by Pillars and Workstreams**



**Figure 2. Actual vs. Budget by Pillars**

## 4.2    Capital Expenditure by Pillars and Workstreams

| CAPITAL EXPENSES (AUD) | Actual 2020 | Budget 2020 | Variance $ | Variance % |
|---|---|---|---|---|
| APNIC conferences | 4,174 | 1,000 | 3,174 | 317% |
| APNIC academy | 20,991 | | 20,991 | |
| Internet infrastructure support | 17,288 | 395,000 | -377,712 | -96% |
| **Total - Development** | **42,453** | **396,000** | **-353,547** | **-89%** |
| Research and analysis | 48,643 | 80,000 | -31,357 | -39% |
| **Total - Information** | **48,643** | **80,000** | **-31,357** | **-39%** |
| Internal technical infrastructure | 411,770 | 207,600 | 204,170 | 98% |
| Finance and business services | 14,408 | 55,000 | -40,592 | -74% |
| **Total - Capability** | **426,178** | **262,600** | **163,578** | **62%** |
| **Total - Capital Expenses** | **517,274** | **738,600** | **-221,326** | **-30%** |

**Table 5 Capital Expenditure by Pillars and Workstreams**

# 5    APNIC Reserve

## 5.1    Cash Flow Statement

This report shows the draft cash flow status as at the end of December 2020.

| Accounts | 2020 |
|---|---:|
| **Operating Activities** | |
| Net Income | **3,452,181** |
| **Adjustments to Profit/(Loss)** | |
| Accounts Receivable | 431,831 |
| Other Current Asset | 160,181 |
| Accounts Payable | 131,460 |
| Sales Tax Payable | -35,406 |
| Other Current Liability | 2,024,091 |
| **Total Adjustments to Profit/(Loss)** | **2,712,156** |
| **Total Operating Activities** | **6,164,337** |
| **Investing Activities** | |
| Fixed Asset | 200,729 |
| Other Asset | -3,333,567 |
| **Total Investing Activities** | **-3,132,838** |
| **Financing Activities** | |
| Long Term Liability | 30,116 |
| Equity | 0 |
| **Total Financing Activities** | **30,116** |
| **Net Change in Cash for Period** | **3,061,616** |
| **Cash at Beginning of Period** | 8,219,434 |
| **Cash at End of Period** | **11,281,050** |

**Table 6. Cash Flow Statement**

## 5.2 Capital Reserve

Capital Reserve is diversified between Cash Investments, Investment Portfolio, and Property (APNIC Office). During 2020, $2M has been transferred from APNIC's operating accounts into the investment portfolio.

At the end of December, APNIC maintained $11.2M in cash reserves, $31M is invested in the investment portfolio and $5.6M invested in Property. Figure 3 below tracks the value and the allocation of these reserves over time and tracks the operating expenses for each year for comparison:
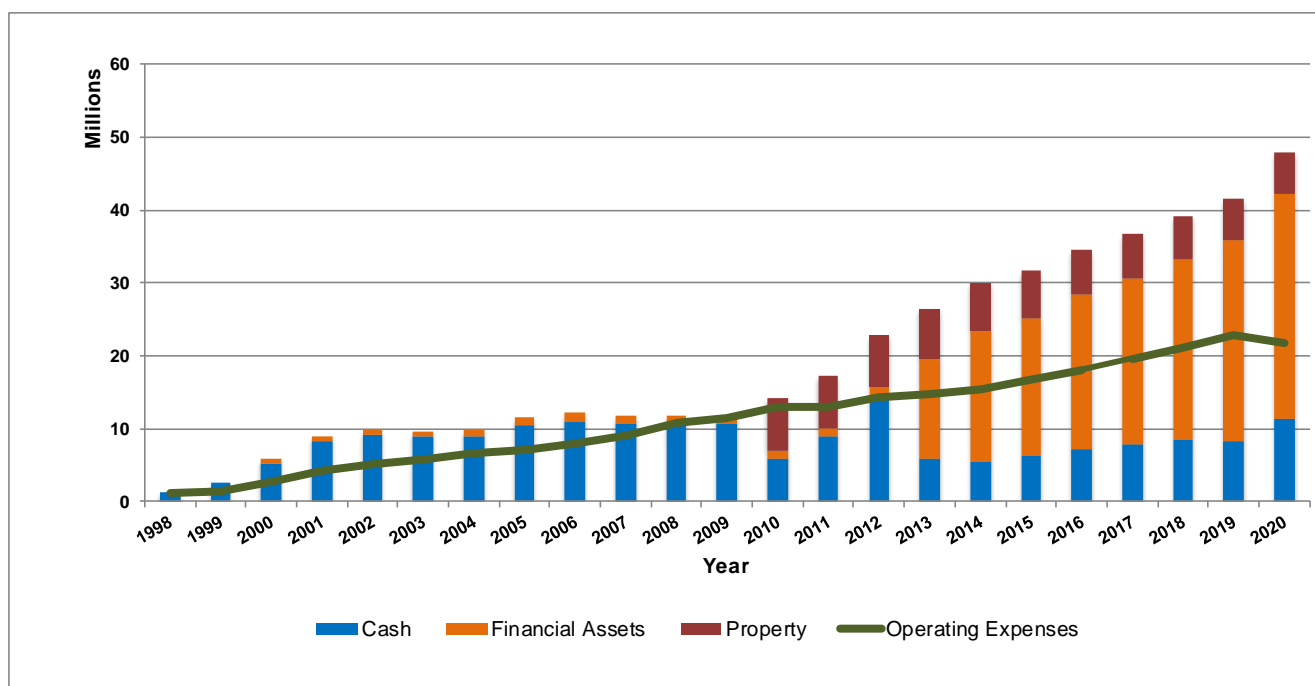


**Figure 3. APNIC Reserves**

## 5.3 APNIC's Equity and Reserves

By comparing the Total Equity (including retained earnings and unrealised capital gains) to the Daily Operating Expenses based on the approved budget for 2020 *, the number of month's coverage of operational expenses is set out below:

| | 2020 | 2019 | 2018 |
|---|---|---|---|
| Total Equity (AUD) | $34,176,883 | $30,724,702 | $28,820,985 |
| % Equity covered by Cash/ Cash Equivalents | 123.8% | 116.9% | 115.6% |
| Daily Operating Expenses (AUD) * | $66,374 | $62,944 | $58,122 |
| **Number of Months of expenses covered by Equity** | **16.88** | **16.05** | **16.30** |

**Table 7. Equity and Reserves**

# 6      Membership

## 6.1      Membership Statistics

As at the end of December 2020, APNIC had a total of 8,341 Members serving 53 economies.

## 6.2      Membership by Category

The table below shows the yearly changes in membership for these few years.

| Membership fees | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| Extra Large | 20 | 21 | 22 | 22 | 23 | 24 | 24 | 26 |
| Very Large | 43 | 40 | 44 | 43 | 41 | 44 | 46 | 48 |
| Large | 147 | 142 | 137 | 138 | 138 | 143 | 143 | 143 |
| Medium | 392 | 402 | 431 | 449 | 473 | 483 | 493 | 521 |
| Small | 1,198 | 1,388 | 2,165 | 2,643 | 2,971 | 3,376 | 3,601 | 3,685 |
| Very Small | 1,294 | 1,701 | 2,336 | 2,590 | 2,769 | 2,967 | 3,334 | 3,778 |
| Associate | 957 | 924 | 133 | 109 | 132 | 125 | 135 | 140 |
| **Total** | **4,051** | **4,618** | **5,268** | **5,994** | **6,547** | **7,162** | **7,776** | **8,341** |
| New  & Reactivation Adjust | 813 | 805 | 968 | 1,048 | 849 | 825 | 838 | 833 |
| Close | 296 | 238 | 318 | 322 | 296 | 210 | 224 | 268 |
| **Total** | **517** | **567** | **650** | **726** | **553** | **615** | **614** | **565** |
| **Average Monthly Gain** | **43** | **47** | **54** | **61** | **46** | **51** | **51** | **47** |

**Table 8.  Membership by Category**

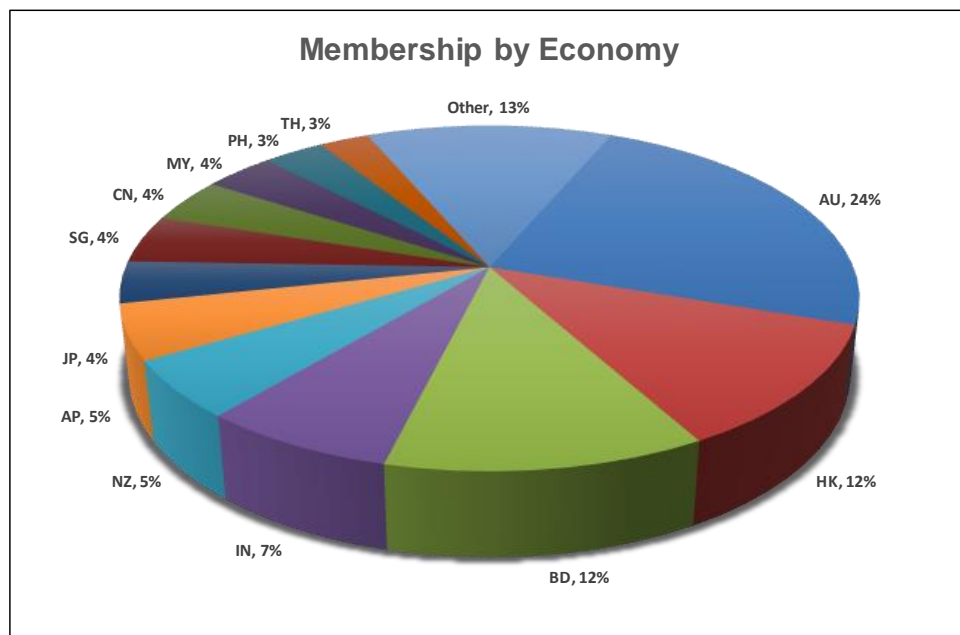## 6.3      Membership by Economy



**Figure 4. Membership by Economy**

## 6.4    Membership Growth

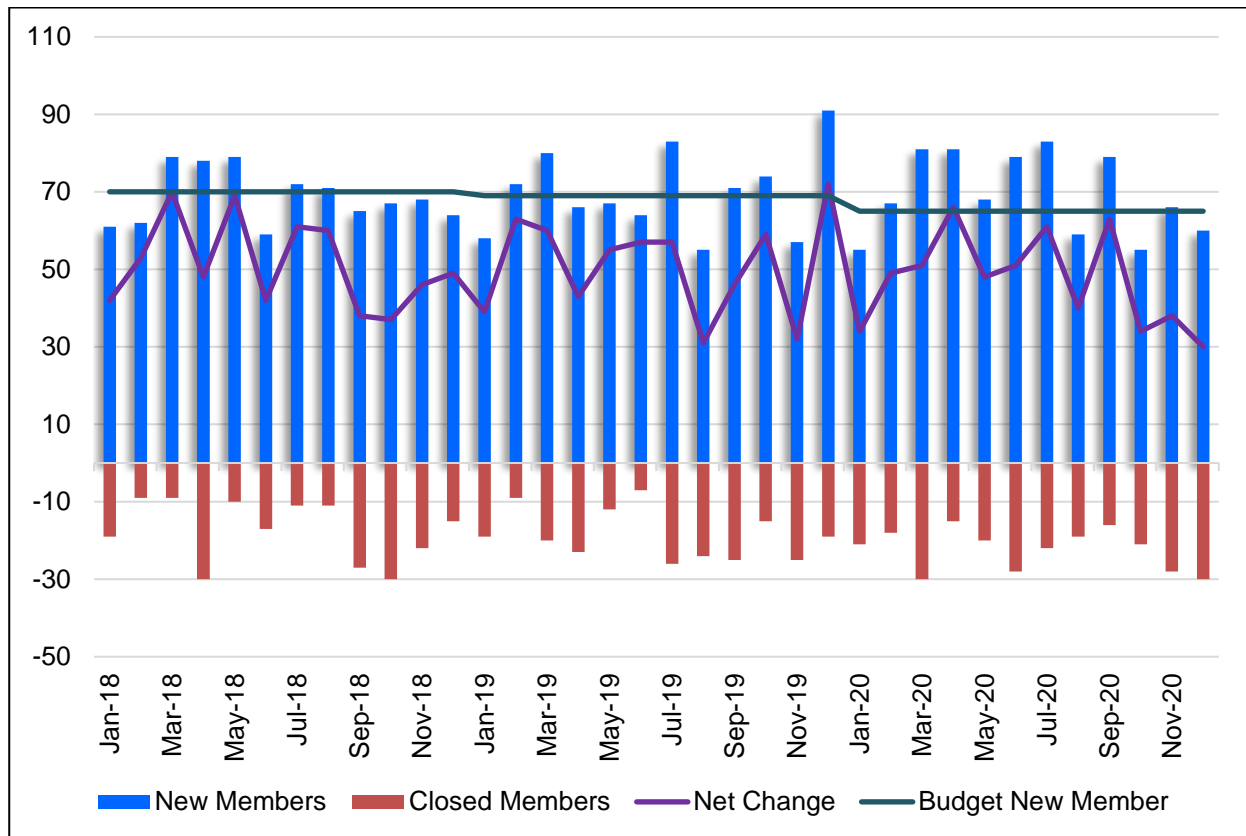Membership monthly movements are illustrated at Figure 5 below.



**Figure 5. Membership Growth Analysis**

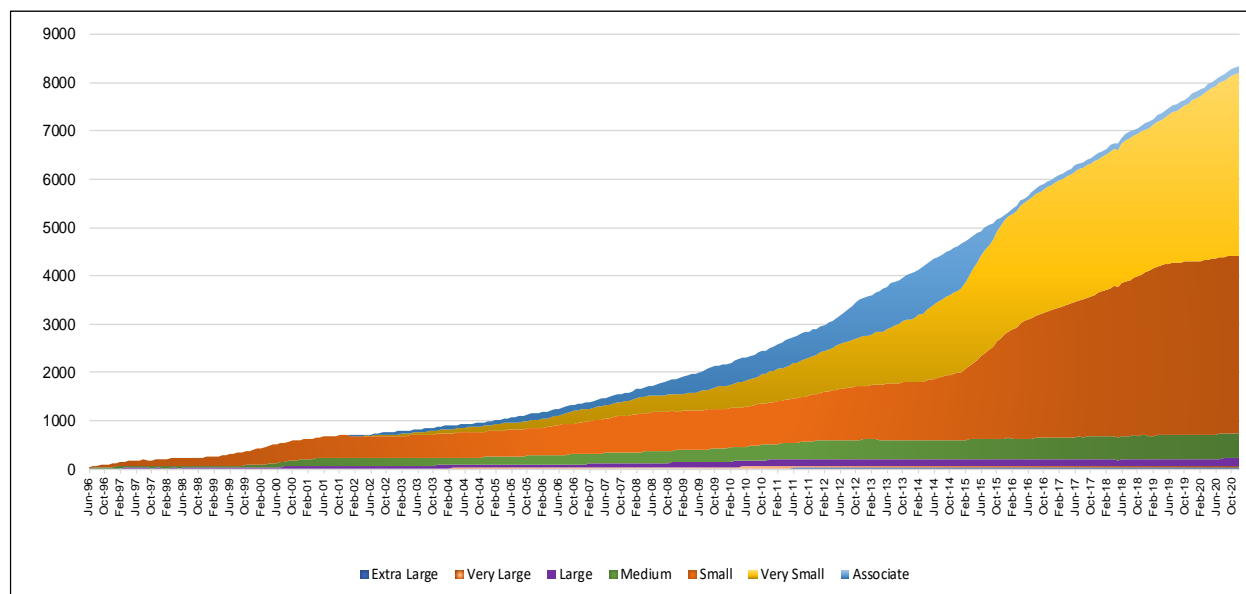Figure 6 below illustrated Total membership by tier:



**Figure 6. Total Membership**

## 6.5        Year-to-Date Membership Movement by Economy

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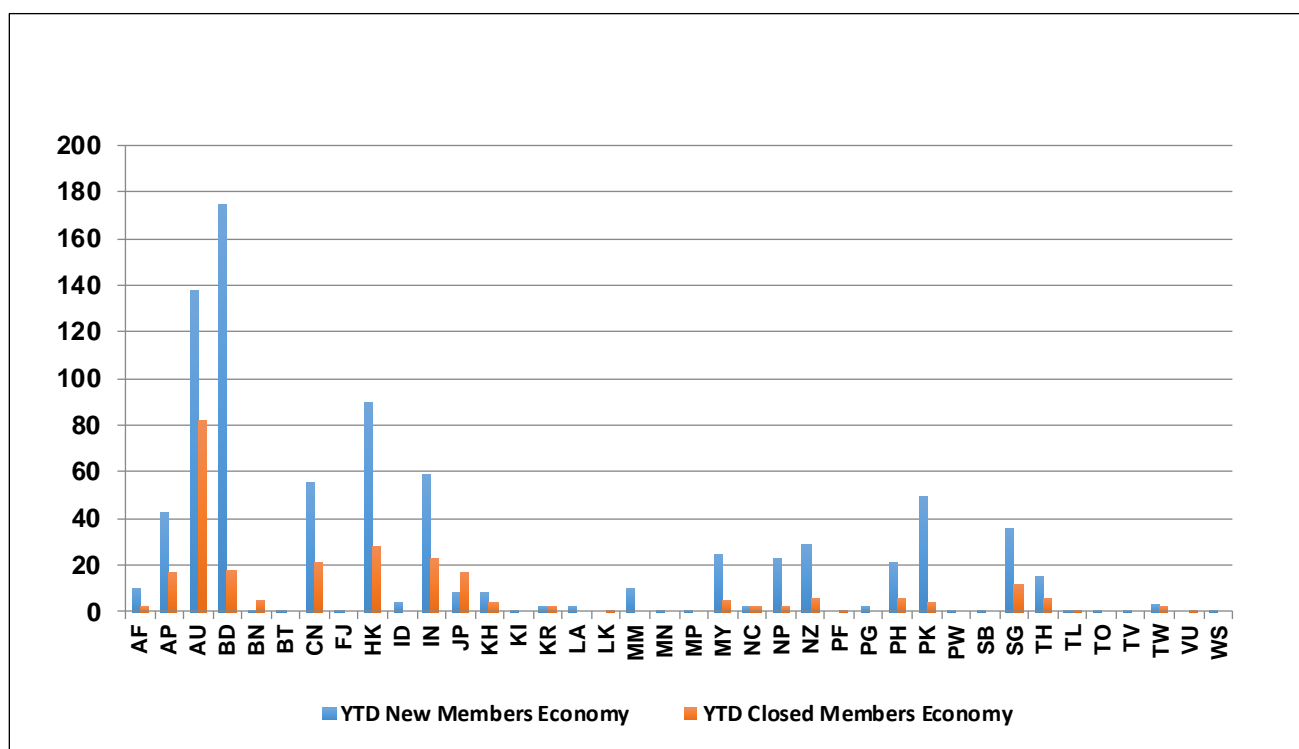


**Figure 7. New and Closed Members Analysis**

## 6.6        Membership Closure Analysis

Figure 8 below provides an analysis of Membership account closures as at the end of December. 70.5% of the closures relate to accounts closed due to the failure to establish contact, the business is no longer operating, or breach of agreement, where resource holdings are returned to APNIC.
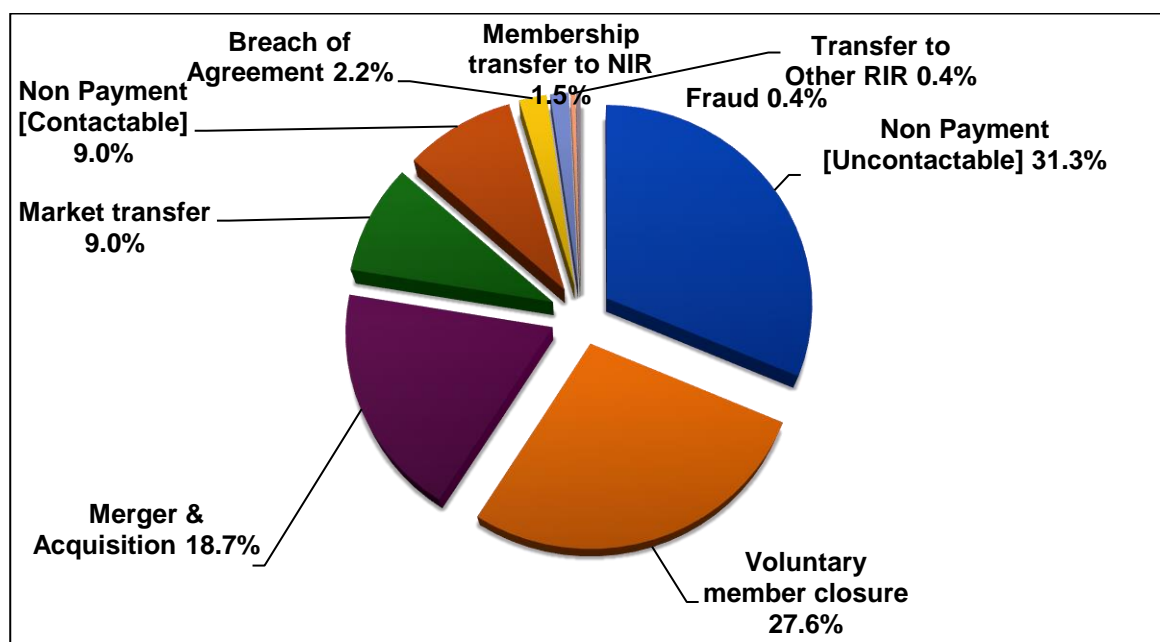


**Figure 8. Closure Analysis**

## 6.7 Membership Closures by Year Joined

| Year Joined | Breach of Agreement | Fraud | Market transfer | Membership transfer to NIR | Merger & Acquisition | Non Payment [Uncontactable] | Non Payment [Contactable] | Voluntary member closure | Transfer to Other RIR | Grand Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1997 | | | | | 1 | | | | | **1** |
| 1999 | | | | | 2 | 1 | | | | **3** |
| 2000 | | | | | 1 | | | 1 | | **2** |
| 2002 | | | 1 | | | | | | | **1** |
| 2003 | | | | | 4 | | | | | **4** |
| 2004 | | | | | 2 | 1 | 1 | | | **4** |
| 2005 | | | | 1 | | 1 | 1 | 1 | | **4** |
| 2006 | | | | | 5 | 1 | 1 | | | **7** |
| 2007 | | | 1 | | 3 | | | 3 | | **7** |
| 2008 | | | 1 | | 1 | 3 | 1 | 1 | | **7** |
| 2009 | | | 1 | | 3 | 3 | 1 | 2 | | **10** |
| 2010 | | | 1 | | 4 | 5 | | 4 | | **14** |
| 2011 | | | 1 | | | 1 | | 4 | | **6** |
| 2012 | | | 1 | | 2 | 4 | 1 | 6 | | **14** |
| 2013 | 1 | | 2 | | 4 | 9 | 1 | 5 | | **22** |
| 2014 | | | 2 | | 9 | 8 | 4 | 8 | | **31** |
| 2015 | 1 | | 10 | 1 | 4 | 9 | 1 | 6 | 1 | **33** |
| 2016 | 1 | | | | 3 | 15 | 1 | 7 | | **27** |
| 2017 | | | | 2 | 1 | 8 | 3 | 9 | | **23** |
| 2018 | | 1 | | | 1 | 6 | 5 | 10 | | **23** |
| 2019 | 1 | | | | | 9 | 3 | 7 | | **20** |
| 2020 | 2 | | 3 | | | | | | | **5** |
| **Grand Total** | **6** | **1** | **24** | **4** | **50** | **84** | **24** | **74** | **1** | **268** |

**Table 9. Membership Closure by Year Joined**

## 6.8 Membership Closures by Economy

| Economy | Breach of Agreement | Fraud | Market transfer | Membership transfer to NIR | Merger & Acquisition | Non Payment [Uncontactable] | Non Payment [Contactable] | Voluntary member closure | Grand Total | IPV4 Resources Reclaimed (/24's) | IPV6 Resources Reclaimed (/32's) | ASN Reclaimed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AF | | | | | | 1 | 1 | | **2** | 7 | 2 | 2 |
| AP | | | | | 6 | 4 | | 6 | **17** | 4 | 5 | 9 |
| AU | | | 8 | | 21 | 15 | 11 | 27 | **82** | 92 | 15 | 36 |
| BD | | | 1 | | 2 | 5 | 2 | 8 | **18** | 46 | 12 | 14 |
| BN | | | | | 4 | | | 1 | **5** | | | 2 |
| CN | | | 5 | | 1 | 8 | 1 | 6 | **21** | 28 | 8 | 2 |
| HK | 6 | | 6 | | 1 | 11 | | 4 | **28** | 47 | 3 | 13 |
| IN | | | 1 | 2 | 3 | 7 | 4 | 6 | **23** | 26 | 2 | 13 |
| JP | | | 1 | 1 | 3 | 9 | | 3 | **17** | 56 | 1 | 2 |
| KH | | | | | | 3 | | 1 | **4** | 18 | 4 | 4 |
| KR | | | | | | 2 | | | **2** | | | |
| LK | | | | | 1 | | | | **1** | | | |
| MY | | | | | | 3 | 1 | 1 | **5** | 10 | 3 | 4 |
| NC | | | | | 1 | | | 1 | **2** | 1 | 0 | 1 |
| NP | | | | | | 1 | 1 | | **2** | 6 | 0 | 2 |
| NZ | | | 1 | | 3 | 1 | | 1 | **6** | 1 | 0 | 1 |
| PF | | | | | | 1 | | | **1** | | | |
| PH | | | | | | 4 | | 2 | **6** | 12 | 0 | 7 |
| PK | | 1 | | | 1 | 1 | | 1 | **4** | 10 | 1 | 2 |
| SG | | | 1 | | 2 | 2 | 3 | 4 | **12** | 23 | 2 | 10 |
| TH | | | | | | 4 | | 2 | **6** | 16 | 5 | 5 |
| TL | | | | | | 1 | | | **1** | 2 | 1 | 1 |
| TW | | | | 1 | | 1 | | | **2** | | | 1 |
| VU | | | | | 1 | | | | **1** | | | |
| **Grand Total** | **6** | **1** | **24** | **4** | **50** | **84** | **24** | **74** | **268** | **405** | **64** | **131** |

Table 10. Membership Closure by Economy

# CREDIT SUISSE

## Investment Report 1.1.2020 – 31.12.2020

## APNIC PTY LTD
Portfolio Group: 3000039

This page is intentionally left blank.

CREDIT SUISSE

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

Private Banking

# Investment Report 1.1.2020 – 31.12.2020

**Portfolio Group**   **3000039**

In the Name of            APNIC PTY LTD

Produced on              7.1.2021
Reporting Currency       AUD

Relationship Manager     Patrick Armitage
Phone                    +61 2 8205 4451

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

**Table of Contents**

## Scope of Analysis
as of 31.12.2020

| Components | Portfolio | Asset Value in AUD | Discretionary Mandate | Opened | Closed |
|---|---|---|---|---|---|
| Portfolio Group: 3000039 | | | | | |
| **Investment related Positions** | | | | | |
| AUD  Portfolio | 3000039-10 | 0 | | 16.08.2013 | |
| AUD  Portfolio | 3000039-70 | 31,036,408 | Yes | 16.08.2013 | |
| **Total Investments** | | **31,036,408** | | | |
| **Total Wealth** | | **31,036,408** | | | |

# 1. Overview

## 1.1. Asset Allocation

### Asset Allocation by Asset Category
Period 1.1.2020 - 31.12.2020

| | Beginning Market Value in AUD | Change | Ending Market Value in AUD | Ending Market Value Prop. |
|---|---|---|---|---|
| Liquidity & Similar Investments | 1,013,203 | 328,041 | 1,341,244 | 4.32% |
| Fixed Income & Similar Investments | 15,047,538 | 1,785,963 | 16,833,501 | 54.24% |
| Equities & Similar Investments | 6,438,939 | 1,732,050 | 8,170,988 | 26.33% |
| Alternative Investments, Commodities & Real Estate | 5,225,353 | -534,678 | 4,690,675 | 15.11% |
| **Total Investments** | **27,725,032** | | **31,036,408** | **100.00%** |
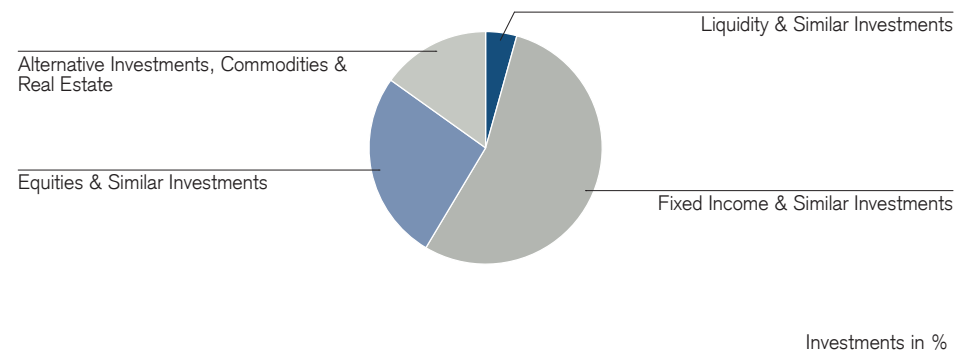
### Asset Allocation by Currency
Period 1.1.2020 - 31.12.2020

| | Beginning Market Value in AUD | Change | Ending Market Value in AUD | Ending Market Value Prop. |
|---|---|---|---|---|
| AUD - Australian Dollar | 23,952,500 | 2,517,472 | 26,469,972 | 85.29% |
| USD - US Dollar | 2,780,433 | 852,562 | 3,632,995 | 11.71% |
| EUR - Euro | 708,665 | -81,955 | 626,710 | 2.02% |
| JPY - Japan Yen | 208,208 | 98,523 | 306,732 | 0.99% |
| CHF - Swiss Franc | 75,200 | -75,200 | 0 | |
| GBP - Pound Sterling | 26 | -26 | 0 | |
| **Total Investments** | **27,725,032** | | **31,036,408** | **100.00%** |
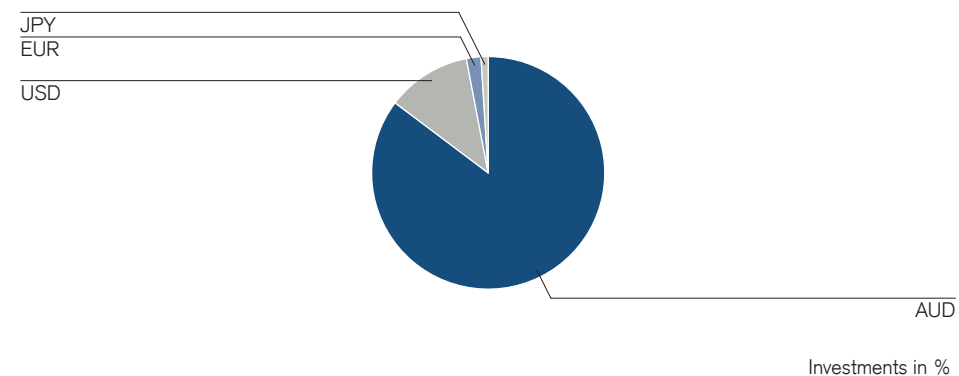
Alternative Investments, Commodities & Real Estate

Liquidity & Similar Investments

Equities & Similar Investments

Fixed Income & Similar Investments

Investments in %

JPY

EUR

USD

AUD

Investments in %

001970938 012 058

**1.2.    Income and Activity**

**Income Summary**
Period 1.1.2020 - 31.12.2020

| | Current Period in AUD | Year to Date in AUD |
|---|---:|---:|
| Cash Dividend | 813,070 | 813,070 |
| Coupon Received/Paid | 37,826 | 37,826 |
| Interest Earned | 2,942 | 2,942 |
| Interest Paid | -1 | -1 |
| **Net Income** | **853,836** | **853,836** |

**Activity Summary**
Period 1.1.2020 - 31.12.2020

| | Current Period in AUD | Year to Date in AUD |
|---|---:|---:|
| Asset Inflows | 3,000,000 | 3,000,000 |
| Asset Outflows | -1,000,000 | -1,000,000 |
| **Net Investment Asset Flows** | **2,000,000** | **2,000,000** |
| Net Non-Investment Flows | 0 | 0 |

001970938 012 058

# 2. Analyses

## 2.1. Contribution Analysis

**Multi-Period Contribution by Asset Category in %**
as of 31.12.2020

| | Month To Date | Quarter To Date | Year To Date | 1 Year | Current Period |
|---|---|---|---|---|---|
| Liquidity & Similar Investments | -0.16 | -0.19 | -0.54 | -0.54 | -0.54 |
| Fixed Income & Similar Investments | 0.13 | 0.83 | 3.13 | 3.13 | 3.13 |
| Equities & Similar Investments | 0.26 | 2.63 | 1.24 | 1.24 | 1.24 |
| Alternative Investments, Commodities & Real Estate | 0.09 | 0.61 | 0.64 | 0.64 | 0.64 |
| Non-Allocable Effect | - | - | -0.02 | -0.02 | -0.02 |
| **Total** – net *** | **0.32** | **3.88** | **4.45** | **4.45** | **4.45** |

**Multi-Period Contribution by Currency in %**
as of 31.12.2020

| | Month To Date | Quarter To Date | Year To Date | 1 Year | Current Period |
|---|---|---|---|---|---|
| AUD - Australian Dollar | 0.26 | 3.14 | 4.24 | 4.24 | 4.24 |
| USD - US Dollar | 0.04 | 0.48 | 0.22 | 0.22 | 0.22 |
| JPY - Japan Yen | - | 0.11 | 0.12 | 0.12 | 0.12 |
| GBP - Pound Sterling | - | - | -0.07 | -0.07 | -0.07 |
| EUR - Euro | 0.01 | 0.15 | -0.04 | -0.04 | -0.04 |
| Non-Allocable Effect | - | - | -0.02 | -0.02 | -0.02 |
| **Total** – net *** | **0.32** | **3.88** | **4.45** | **4.45** | **4.45** |

*** If applicable, fees charged in the relevant currency will be deducted from the cash account contribution, which is part of the Liquidity & Similar Investments asset category.

001970938 012 058

## 2.2. Contribution - Top Contributors & Detractors

**Top Contributors in %**
as of 31.12.2020

| | Total Return | Average Weight | Contribution | |
|---|---|---|---|---|
| UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A- | 5.07 | 15.25 | 0.72 | 0.72 |
| UNITS VANGUARD AUSTRALIAN FIXED INTEREST INDEX FUND | 4.24 | 11.96 | 0.61 | 0.61 |
| STAPLED SECURITY GOODMAN GROUP | 44.09 | 1.38 | 0.52 | 0.52 |
| ETC SECURITY ETFS METAL SECURITIES AUSTRALIA LTD 2003-WITHOUT FIXED MATURITY ON GOLD COMMODITY | 12.57 | 2.47 | 0.49 | 0.49 |
| UNITS SPDR S&P/ASX 200 FUND ETF AUSTRALIAN EQUITY EXCHANGE TRADED FUNDS | 2.75 | 1.67 | 0.45 | 0.45 |
| **Total** – net *** | | **32.73** | **2.78** | |
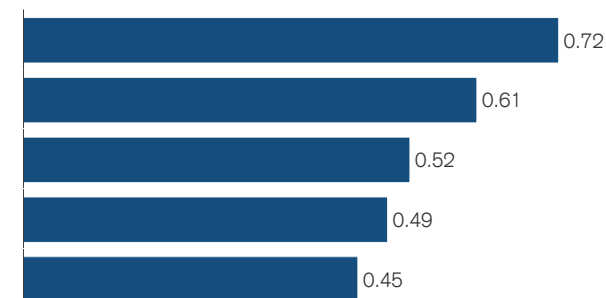
**Top Detractors in %**
as of 31.12.2020

| | Total Return | Average Weight | Contribution | |
|---|---|---|---|---|
| Current Account -20300003970945 | -20.99 | 2.89 | -0.55 | -0.55 |
| UNITS SPDR S&P/ASX 200 LISTED PROPERTY FUND EXCHANGE TRADED FUND | -1.02 | 1.94 | -0.53 | -0.53 |
| RED.PTG.SHS -A- CS RENAISSANCE ALTERNATIVE ACCESS FUND LTD USD | -39.28 | 0.78 | -0.38 | -0.38 |
| UBS ETC UBS AG, LONDON BRANCH 2007- OPEN END ON UBS BLOOMBER CMCI COMPOSITE TOTAL RETURN | -8.55 | 2.18 | -0.27 | -0.27 |
| STAPLED SECURITY DEXUS | -15.43 | 0.87 | -0.23 | -0.23 |
| **Total** – net *** | | **8.67** | **-1.96** | |
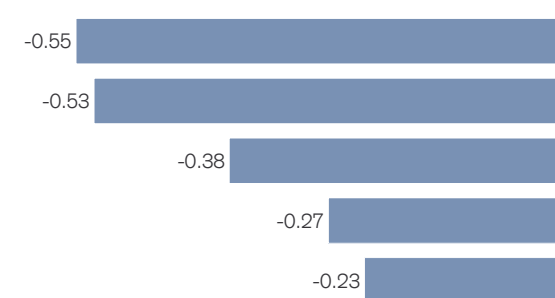
*** If applicable, fees charged in the relevant currency will be deducted from the cash account contribution, which is part of the Liquidity & Similar Investments asset category.

# 3. Positions

## 3.1. Investment Related Positions
as of 31.12.2020

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| **Liquidity & Similar Investments** | | | | | | | | |
| Accounts | | | | | | | | |
| AUD | 1,158,389.02 | Current Account -20300003970945<br>AUD Portfolio: 3000039-70 | | 1.0000 | | 1,158,389<br><br>3.73% | | |
| EUR | 468.68 | Current Account -20300003970056<br>AUD Portfolio: 3000039-70 | | 1.0000<br>1.6224 EUR/AUD | | 748<br><br> | -13<br><br>-13 | -1.66%<br><br>-1.66% |
| USD | 140,290.87 | Current Account -20300003970780<br>AUD Portfolio: 3000039-70 | | 1.0000<br>0.7269 AUD/USD | | 182,107<br><br>0.59% | -10,899<br><br>-10,899 | -5.65%<br><br>-5.65% |
| **Total Liquidity & Similar Investments** | | | | | | **1,341,244**<br>**0**<br>**4.32%** | | |
| **Fixed Income & Similar Investments** | | | | | | | | |
| Fixed Income & Similar Investments AUD | | | | | | | | |
| AUD | 1,310,475.85 | UNITS -D- ISHARES AUSTRALIAN BOND INDEX FUND<br>AUD Portfolio: 3000039-70 | AU60BGL01056<br>2244170 | 1.0417 | 1.0868 NAV<br>31.12.2020 | 1,424,282<br><br>4.59% | 59,183<br>59,183 | 4.34%<br>4.34% |
| AUD | 2,460,741.51880 | UNITS PERPETUAL ACTIVE FIXED INTEREST FUND<br>AUD Portfolio: 3000039-70 | AU60PER02627<br>35661784 | 1.0665 | 1.0742 NAV<br>31.12.2020 | 2,643,228<br><br>8.52% | 18,810<br>18,810 | 0.72%<br>0.72% |

| 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 | 4,267,495.3017 | UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A- AUD Portfolio: 3000039-70 | AU60SSB01221 2248336 | 1.2514 | 1.3186 BID 31.12.2020 | 5,627,290 18.13% | 286,862 286,862 | 5.37% 5.37% |
| AUD | 1,208,436.71 | UNITS VANGUARD AUSTRALIAN FIXED INTEREST INDEX FUND AUD Portfolio: 3000039-70 | AU60VAN00014 1653500 | 1.1473 | 1.2025 NAV 31.12.2020 | 1,453,145 4.68% | 66,751 66,751 | 4.81% 4.81% |
| AUD | 28,807 | SHS -I- AUD NEUBERGER BERMAN INVESTMENT FUNDS PLC - NEUBERGER BERMAN EMERGING MARKET DEBT - HARD CURRENCY FUND AUD Portfolio: 3000039-70 | IE00B986FB81 53616359 | 10.5258 | 11.1600 NAV 31.12.2020 | 321,486 1.04% | 18,269 18,269 | 6.02% 6.02% |
| AUD | 233,719 | SHS PIMCO FUNDS: GLOBAL INVESTORS SERIES PLC - GLOBAL INVESTMENT GRADE CREDIT FUND INSTITUTIONAL CLASS AUD (HEDGED) AUD Portfolio: 3000039-70 | IE00BL0BLL78 3752613 | 10.7673 | 11.0400 NAV 31.12.2020 | 2,580,258 8.31% | 63,729 63,729 | 2.53% 2.53% |
| AUD | 348,385 | SHS -L3- HEDGED AUD FEDERATED HERMES INVESTMENT FUNDS PLC - FEDERATED HERMES GLOBAL HIGH YIELD CREDIT FUND AUD Portfolio: 3000039-70 | IE00BMZ15N91 57259812 | 3.0659 | 3.1951 NAV 31.12.2020 | 1,113,125 3.59% | 44,999 44,999 | 4.21% 4.21% |
| AUD | 3,944 | SHS -I AUD HEDGED- AXA WORLD FUNDS SICAV - GLOBAL INFLATION BONDS DISTRIBUTION AUD Portfolio: 3000039-70 | LU1774150491 40510321 | 113.9233 | 116.0900 NAV 30.12.2020 | 457,859 1.48% | 8,545 8,545 | 1.90% 1.90% |
| AUD | 4,401 | SHS -RA- GAM MULTIBOND SICAV - LOCAL EMERGING BOND DISTRIBUTION AUD Portfolio: 3000039-70 | LU2128492191 52867287 | 96.1440 | 95.5800 NAV 31.12.2020 | 420,648 1.36% | -2,482 -2,482 | -0.59% -0.59% |

001970938 012 058

| 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 | 67,391 | SHS -I MINC HEDGED AUD- ABERDEEN STANDARD SICAV I SICAV - EMERGING MARKETS CORPORATE BOND FUND DISTRIBUTION AUD Portfolio: 3000039-70 | LU2146569814 53902295 | 11.0585 | 11.7550 NAV 31.12.2020 | 792,181 2.55% | 46,940 46,940 | 6.30% 6.30% |

**Total Fixed Income & Similar Investments**

|  |  |  |  |  |  | 16,833,501 0 54.24% |  |  |
|---|---|---|---|---|---|---|---|---|

**Equities & Similar Investments**

Equities & Similar Investments AUD

| AUD | 5,320 | REGISTERED SHS AUSTRALIA & NEW ZEALAND BANKING GROUP LTD AUD Portfolio: 3000039-70 | AU000000ANZ3 640139 ANZ.AX | 28.2441 | 22.7000 CLO 31.12.2020 | 120,764 0.39% | -29,494 -29,494 | -19.63% -19.63% |
|---|---|---|---|---|---|---|---|---|
| AUD | 4,666 | REGISTERED SHS ALUMINA LTD AUD Portfolio: 3000039-70 | AU000000AWC3 1526402 AWC.AX | 1.8475 | 1.8350 CLO 31.12.2020 | 8,562 0.03% | -58 -58 | -0.68% -0.68% |
| AUD | 24,195 | REGISTERED SHS AURIZON HOLDINGS LTD AUD Portfolio: 3000039-70 | AU000000AZJ1 20175896 AZJ.AX | 4.8781 | 3.9000 CLO 31.12.2020 | 94,361 0.30% | -23,665 -23,665 | -20.05% -20.05% |
| AUD | 7,601 | REGISTERED SHS BHP GROUP LTD AUD Portfolio: 3000039-70 | AU000000BHP4 640390 BHP.AX | 30.4103 | 42.4300 CLO 31.12.2020 | 322,510 1.04% | 91,362 91,362 | 39.53% 39.53% |
| AUD | 2,316 | REGISTERED SHS CARSALES.COM LTD AUD Portfolio: 3000039-70 | AU000000CAR3 10476764 CAR.AX | 15.8638 | 20.0100 CLO 31.12.2020 | 46,343 0.15% | 9,603 9,603 | 26.14% 26.14% |

001970938 012 058

| Number/ Nominal | | Description | Identification ISIN Valoren Number Ticker | Cost Valuation Price Exchange Rate | Current Valuation Price/ Type Date | Value in AUD of which Accrued Interest Proportion in % | Profit/ Loss Unrealized in AUD of which Instrument of which Forex | P/L Unreal. in % Instr. in % FX in % |
|---|---|---|---|---|---|---|---|---|
| AUD | 3,399 | REGISTERED SHS COMMONWEALTH BANK OF AUSTRALIA AUD Portfolio: 3000039-70 | AU000000CBA7 646758 CBA.AX | 75.5562 | 82.1100 CLO 31.12.2020 | 279,092 0.90% | 22,276 22,276 | 8.67% 8.67% |
| AUD | 3,104 | REGISTERED SHS COMPUTERSHARE LTD AUD Portfolio: 3000039-70 | AU000000CPU5 241285 CPU.AX | 16.0565 | 14.5900 CLO 31.12.2020 | 45,287 0.15% | -4,552 -4,552 | -9.13% -9.13% |
| AUD | 1,257 | REGISTERED SHS CSL LTD AUD Portfolio: 3000039-70 | AU000000CSL8 241548 CSL.AX | 139.1435 | 283.1800 CLO 31.12.2020 | 355,957 1.15% | 181,054 181,054 | 103.52% 103.52% |
| AUD | 2,224 | REGISTERED SHS FLIGHT CENTRE TRAVEL GROUP LTD AUD Portfolio: 3000039-70 | AU000000FLT9 90307 FLT.AX | 19.1267 | 15.8500 CLO 31.12.2020 | 35,250 0.11% | -7,287 -7,287 | -17.13% -17.13% |
| AUD | 1,585 | REGISTERED SHS FORTESCUE METALS GROUP LTD AUD Portfolio: 3000039-70 | AU000000FMG4 1655130 FMG.AX | 8.4965 | 23.4300 CLO 31.12.2020 | 37,137 0.12% | 23,670 23,670 | 175.76% 175.76% |
| AUD | 2,165 | CHESS UNITS OF FOREIGN SECURITIES JAMES HARDIE INDUSTRIES PLC AUD Portfolio: 3000039-70 | AU000000JHX1 1303670 JHX.AX | 23.8012 | 38.2200 CLO 31.12.2020 | 82,746 0.27% | 31,217 31,217 | 60.58% 60.58% |
| AUD | 1,846 | REGISTERED SHS MAGELLAN FINANCIAL GROUP LTD AUD Portfolio: 3000039-70 | AU000000MFG4 2807450 MFG.AX | 40.2598 | 53.6600 CLO 31.12.2020 | 99,056 0.32% | 24,737 24,737 | 33.28% 33.28% |
| AUD | 413 | REGISTERED SHS MACQUARIE GROUP LTD AUD Portfolio: 3000039-70 | AU000000MQG1 3422370 MQG.AX | 74.1362 | 138.4800 CLO 31.12.2020 | 57,192 0.18% | 26,574 26,574 | 86.79% 86.79% |

001970938 012 058

| 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 | 9,618 | REGISTERED SHS NATIONAL AUSTRALIA BANK LTD AUD Portfolio: 3000039-70 | AU000000NAB4 641643 NAB.AX | 24.0162 | 22.6000 CLO 31.12.2020 | 217,367 0.70% | -13,621 -13,621 | -5.90% -5.90% |
| AUD | 4,833 | REGISTERED SHS NEWCREST MINING LTD AUD Portfolio: 3000039-70 | AU000000NCM7 650853 NCM.AX | 27.8768 | 25.7800 CLO 31.12.2020 | 124,595 0.40% | -10,134 -10,134 | -7.52% -7.52% |
| AUD | 11,106 | REGISTERED SHS ORIGIN ENERGY LTD AUD Portfolio: 3000039-70 | AU000000ORG5 1051439 ORG.AX | 7.8653 | 4.7600 CLO 31.12.2020 | 52,865 0.17% | -34,488 -34,488 | -39.48% -39.48% |
| AUD | 2,172 | REGISTERED SHS OZ MINERALS LTD AUD Portfolio: 3000039-70 | AU000000OZL8 4334812 OZL.AX | 10.0782 | 18.8800 CLO 31.12.2020 | 41,007 0.13% | 19,118 19,118 | 87.34% 87.34% |
| AUD | 13,146 | REGISTERED SHS QANTAS AIRWAYS LTD AUD Portfolio: 3000039-70 | AU000000QAN2 390413 QAN.AX | 5.8966 | 4.8500 CLO 31.12.2020 | 63,758 0.21% | -13,758 -13,758 | -17.75% -17.75% |
| AUD | 6,263 | REGISTERED SHS QBE INSURANCE GROUP LTD AUD Portfolio: 3000039-70 | AU000000QBE9 641857 QBE.AX | 11.5743 | 8.5300 CLO 31.12.2020 | 53,423 0.17% | -19,067 -19,067 | -26.30% -26.30% |
| AUD | 1,659 | REGISTERED SHS RIO TINTO LTD AUD Portfolio: 3000039-70 | AU000000RIO1 603520 RIO.AX | 72.7603 | 113.8300 CLO 31.12.2020 | 188,844 0.61% | 68,135 68,135 | 56.45% 56.45% |
| AUD | 1,345 | SHS RESMED INC CHESS DEPOSITORY INTERESTS REPR 1/10 SH AUD Portfolio: 3000039-70 | AU000000RMD6 1058638 RMD.AX | 14.4915 | 27.2300 CLO 31.12.2020 | 36,624 0.12% | 17,133 17,133 | 87.90% 87.90% |

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| AUD | 10,360 | REGISTERED SHS SOUTH32 LTD<br>AUD Portfolio: 3000039-70 | AU000000S320<br>27547963<br>S32.AX | 2.6101 | 2.4700 CLO<br>31.12.2020 | 25,589<br><br>0.08% | -1,451<br>-1,451 | -5.37%<br>-5.37% |
| AUD | 67,137 | UNITS SPDR S&P/ASX 200 LISTED PROPERTY FUND EXCHANGE TRADED FUND<br>AUD Portfolio: 3000039-70 | AU000000SLF1<br>1377855<br>SLF.AX | 12.5249 | 12.3900 CLO<br>31.12.2020 | 831,827<br><br>2.68% | -9,060<br>-9,060 | -1.08%<br>-1.08% |
| AUD | 4,988 | UNITS SPDR S&P/ASX 200 FUND ETF AUSTRALIAN EQUITY EXCHANGE TRADED FUNDS<br>AUD Portfolio: 3000039-70 | AU000000STW9<br>1285707<br>STW.AX | 54.0731 | 61.3500 CLO<br>31.12.2020 | 306,014<br><br>0.99% | 36,297<br>36,297 | 13.46%<br>13.46% |
| AUD | 13,494 | REGISTERED SHS TELSTRA CORPORATION LTD<br>AUD Portfolio: 3000039-70 | AU000000TLS2<br>720464<br>TLS.AX | 4.5954 | 2.9800 CLO<br>31.12.2020 | 40,212<br><br>0.13% | -21,798<br>-21,798 | -35.15%<br>-35.15% |
| AUD | 2,899 | SHS VANGUARD MSCI AUSTRALIAN SMALL COMPANIES INDEX ETF EXCHANGE TRADED FUND<br>AUD Portfolio: 3000039-70 | AU000000VSO2<br>13053435<br>VSO.AX | 59.1150 | 64.1500 CLO<br>31.12.2020 | 185,971<br><br>0.60% | 14,596<br>14,596 | 8.52%<br>8.52% |
| AUD | 10,751 | REGISTERED SHS WESTPAC BANKING CORP<br>AUD Portfolio: 3000039-70 | AU000000WBC1<br>642372<br>WBC.AX | 27.1618 | 19.3700 CLO<br>31.12.2020 | 208,247<br><br>0.67% | -83,770<br>-83,770 | -28.69%<br>-28.69% |
| AUD | 981 | REGISTERED SHS WESFARMERS LTD<br>AUD Portfolio: 3000039-70 | AU000000WES1<br>642397<br>WES.AX | 32.9532 | 50.4000 CLO<br>31.12.2020 | 49,442<br><br>0.16% | 17,115<br>17,115 | 52.94%<br>52.94% |
| AUD | 4,033 | REGISTERED SHS WOOLWORTHS GROUP LTD<br>AUD Portfolio: 3000039-70 | AU000000WOW2<br>81350<br>WOW.AX | 32.4384 | 39.3100 CLO<br>31.12.2020 | 158,537<br><br>0.51% | 27,713<br>27,713 | 21.18%<br>21.18% |

001970938 012 058

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| AUD | 5,041 | REGISTERED SHS WOODSIDE PETROLEUM LTD<br>AUD Portfolio: 3000039-70 | AU000000WPL2<br>642429<br>WPL.AX | 29.0162 | 22.7400 CLO<br>31.12.2020 | 114,632<br><br>0.37% | -31,638<br>-31,638 | -21.63%<br>-21.63% |
| AUD | 6,582 | REGISTERED SHS COLES GROUP LTD<br>AUD Portfolio: 3000039-70 | AU0000030678<br>44059594<br>COL.AX | 16.9559 | 18.1400 CLO<br>31.12.2020 | 119,397<br><br>0.38% | 7,794<br>7,794 | 6.98%<br>6.98% |
| AUD | 638 | UNITS ISHARES S&P 500 AUD HEDGED ETF EXCHANGE TRADED FUND<br>AUD Portfolio: 3000039-70 | AU00000IHVV8<br>26323289<br>IHVV.AX | 436.9500 | 443.2500 CLO<br>31.12.2020 | 282,794<br><br>0.91% | 4,019<br>4,019 | 1.44%<br>1.44% |
| AUD | 0 | UNITS ABERDEEN STANDARD EMERGING OPPORTUNITIES FUND<br>AUD Portfolio: 3000039-70 | AU60ETL00329<br>2220820 | | 2.3958 NAV<br>31.12.2020 | | | |
| AUD | 3,961 | REGISTERED SHS THE A2 MILK COMPANY LTD<br>AUD Portfolio: 3000039-70 | NZATME0002S8<br>1841567<br>A2M.AX | 14.6615 | 11.4500 CLO<br>31.12.2020 | 45,353<br><br>0.15% | -12,721<br>-12,721 | -21.90%<br>-21.90% |
| **Total Equities & Similar Investments AUD** | | | | | | 4,730,759<br>0<br>15.24% | | |
| **Equities & Similar Investments EUR** | | | | | | | | |
| EUR | 5,779 | SHS EUR ISHARES II PLC - ISHARES CORE MSCI EUROPE UCITS ETF<br>AUD Portfolio: 3000039-70 | IE00B1YZSC51<br>3246398<br>IQQY.DE | 23.9487<br>1.5707 EUR/AUD | 24.6100 OFF<br>30.12.2020 | 226,917<br><br>0.73% | 9,538<br>6,097<br>3,441 | 4.39%<br>2.76%<br>1.63% |

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 % |
|---|---|---|---|---|---|---|---|---|
| EUR | 13,180 | ACCUM.PTG.SHS WELLINGTON MANAGEMENT FUNDS (IRELAND) PLC - WELLINGTON STRATEGIC EUROPEAN EQUITY FUND CLASS -N- UNHEDGED EUR AUD Portfolio: 3000039-70 | IE00B9DPD161 20938626 | 14.9673 1.5282 EUR/AUD | 18.9759 NAV 31.12.2020 | 399,045 1.29% | 97,570 84,297 13,273 | 32.36% 26.78% 5.58% |

| **Total Equities & Similar Investments EUR** | | | | | | 625,962 0 2.02% | | |

**Equities & Similar Investments JPY**

| JPY | 860 | UNITS NEXT FUNDS NIKKEI 225 EXCHANGE TRADED FUND AUD Portfolio: 3000039-70 | JP3027650005 1264151 1321.T | 20,119.1547 83.4958 AUD/JPY | 28,340.0000 CLO 30.12.2020 | 306,732 0.99% | 99,506 88,976 10,529 | 48.02% 40.86% 7.16% |

| **Total Equities & Similar Investments JPY** | | | | | | 306,732 0 0.99% | | |

**Equities & Similar Investments USD**

| USD | 221 | ACCUM.PTG.SHS ISHARES VII PLC - ISHARES NASDAQ 100 UCITS ETF USD AUD Portfolio: 3000039-70 | IE00B53SZB19 10737617 CSNDX.S | 286.7120 0.7948 AUD/USD | 725.2000 CLO 30.12.2020 | 208,041 0.67% | 128,317 125,790 2,526 | 160.95% 152.94% 8.02% |
| USD | 4,853 | ACCUM SHS -1C- USD XTRACKERS (IE) PLC - XTRACKERS MSCI USA UCITS ETF AUD Portfolio: 3000039-70 | IE00BJ0KDR00 24268896 XD9U.L | 92.2228 0.7098 AUD/USD | 106.1200 OFF 31.12.2020 | 668,506 2.15% | 37,992 87,546 -49,554 | 6.03% 15.07% -9.04% |
| USD | 6,709 | SHS -1C- XTRACKERS SICAV - XTRACKERS CSI300 SWAP UCITS ETF CAPITALISATION AUD Portfolio: 3000039-70 | LU0779800910 18841290 XCHA.L | 15.4300 0.7212 AUD/USD | 18.6800 OFF 31.12.2020 | 162,679 0.52% | 19,151 28,303 -9,152 | 13.34% 21.06% -7.72% |

| 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 | 18,058 | SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS EMERGING MARKETS EQUITY PORTFOLIO CAPITALISATION AUD Portfolio: 3000039-70 | LU0830622741 19578737 | 14.7192 0.7015 AUD/USD | 19.9300 NAV 31.12.2020 | 467,170 1.51% | 88,253 122,143 -33,889 | 23.29% 35.40% -12.11% |
| USD | 56,288 | SHS -UCITS ETF USD C- AMUNDI INDEX SOLUTIONS SICAV - AMUNDI MSCI EMERGING MARKETS CAPITALISATION AUD Portfolio: 3000039-70 | LU1681045453 38785088 AUEM.PA | 4.8465 0.7269 AUD/USD | 5.9278 CLO 31.12.2020 | 433,119 1.40% | 57,818 79,007 -21,189 | 15.41% 22.31% -6.91% |
| USD | 1,117 | SHS ISHARES GLOBAL HEALTHCARE ETF AUD Portfolio: 3000039-70 | US4642873255 1352444 IXJ.P | 64.2835 0.6276 AUD/USD | 76.4500 CLO 31.12.2020 | 110,848 0.36% | -3,566 17,641 -21,206 | -3.12% 18.93% -22.04% |
| USD | 942 | TRUST UNITS SPDR S&P 500 ETF TRUST AUD Portfolio: 3000039-70 | US78462F1030 45088 SPY.P | 241.9643 0.7565 AUD/USD | 373.8800 CLO 31.12.2020 | 457,173 1.47% | 155,872 161,304 -5,432 | 51.73% 54.52% -2.79% |
| **Total Equities & Similar Investments USD** | | | | | | 2,507,536 0 8.08% | | |
| **Total Equities & Similar Investments** | | | | | | 8,170,988 0 26.33% | | |

**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 | 490,914.23 | UNITS BLACKROCK GLOBAL ALLOCATION FUND (AUST) CLASS -D- WHOLESALE AUD Portfolio: 3000039-70 | AU60MAL00181 3379478 | 1.2334 | 1.3447 NAV 31.12.2020 | 660,120 2.13% | 54,632 54,632 | 9.02% 9.02% |

| 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 | 2,733 | ACCUM SHS -I- HEDGED AUD PGIM FUNDS PLC - PGIM QMAW KEYNES SYSTEMATIC ABSOLUTE RETURN FUND AUD Portfolio: 3000039-70 | IE00BKV41X02 54282717 | 101.1169 | 105.7890 NAV 31.12.2020 | 289,121 0.93% | 12,769 12,769 | 4.62% 4.62% |
| AUD | 4,502.172 | ACCUM SHS -A- AUD MARSHALL WACE FUNDS PLC - MW GLOBAL OPPORTUNITIES FUND AUD Portfolio: 3000039-70 | IE00BMPRT797 56741323 | 100.3411 | 106.8473 NAV 30.11.2020 | 481,045 1.55% | 29,292 29,292 | 6.48% 6.48% |
| USD | 164.429 | RED.PTG.SHS -A- CS RENAISSANCE ALTERNATIVE ACCESS FUND LTD USD AUD Portfolio: 3000039-70 | KYG258511099 34032546 | 1,133.2808 0.7185 AUD/USD | 802.7547 EST 25.12.2020 | 171,340 0.55% | -88,024 -70,548 -17,476 | -33.94% -29.17% -4.77% |
| **Total Hedge Funds** | | | | | | **1,601,626** **0** **5.16%** | | |
| **Private Equity** | | | | | | | | |
| AUD | 248,927.18 | UNITS PARTNERS GROUP GLOBAL VALUE FUND (AUD) WHOLESALE AUD Portfolio: 3000039-70 | AU60ETL02762 26607292 | 2.0617 | 2.6119 NAV 30.11.2020 | 650,173 2.09% | 136,954 136,954 | 26.69% 26.69% |
| **Total Private Equity** | | | | | | **650,173** **0** **2.09%** | | |
| **Commodities & Precious Metals** | | | | | | | | |
| AUD | 1,194 | ETC SECURITY ETFS METAL SECURITIES AUSTRALIA LTD 2003-WITHOUT FIXED MATURITY ON GOLD COMMODITY AUD Portfolio: 3000039-70 | AU00000GOLD7 1583458 GOLD.AX | 172.2598 | 230.0000 CLO 31.12.2020 | 274,620 0.88% | 68,942 68,942 | 33.52% 33.52% |

| 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 | 666 | UBS ETC UBS AG, LONDON BRANCH 2007-<br>OPEN END ON UBS BLOOMBER CMCI<br>COMPOSITE TOTAL RETURN<br>AUD Portfolio: 3000039-70 | CH0031794263<br>3179426<br>TCMCI.S | 971.5610<br>0.8149 AUD/USD | 893.0000 CLO<br>30.12.2020 | 772,011<br><br>2.49% | -22,061<br>-67,917<br>45,856 | -2.78%<br>-8.09%<br>5.31% |
| **Total Commodities & Precious Metals** | | | | | | **1,046,631**<br>**0**<br>**3.37%** | | |
| **Real Estate** | | | | | | | | |
| AUD | 22,775 | STAPLED SECURITY DEXUS<br>AUD Portfolio: 3000039-70 | AU000000DXS1<br>3819970<br>DXS.AX | 11.1990 | 9.4000 CLO<br>31.12.2020 | 214,085<br><br>0.69% | -40,972<br>-40,972 | -16.06%<br>-16.06% |
| AUD | 26,011 | STAPLED SECURITY GOODMAN GROUP<br>AUD Portfolio: 3000039-70 | AU000000GMG2<br>18079202<br>GMG.AX | 9.6273 | 18.9100 CLO<br>31.12.2020 | 491,868<br><br>1.58% | 241,452<br>241,452 | 96.42%<br>96.42% |
| AUD | 48,048 | STAPLED SECURITY MIRVAC GROUP<br>AUD Portfolio: 3000039-70 | AU000000MGR9<br>821911<br>MGR.AX | 1.8618 | 2.6400 CLO<br>31.12.2020 | 126,847<br><br>0.41% | 37,389<br>37,389 | 41.79%<br>41.79% |
| **Total Real Estate** | | | | | | **832,800**<br>**0**<br>**2.68%** | | |

| Number/ Nominal | | Description | Identification ISIN Valoren Number Ticker | Cost Valuation Price Exchange Rate | Current Valuation Price/ Type Date | Value in AUD of which Accrued Interest Proportion in % | Profit/ Loss Unrealized in AUD of which Instrument of which Forex | P/L Unreal. in % Instr. in % FX in % |
|---|---|---|---|---|---|---|---|---|
| **Other Alternative Investments** | | | | | | | | |
| AUD | 4,689 | PTG.SHS LEGG MASON GLOBAL FUNDS PLC - LEGG MASON WESTERN ASSET MACRO OPPORTUNITIES BOND FUND PREMIER CLASS DISTRIBUTING (S) HEDGED AUD AUD Portfolio: 3000039-70 | IE00BYYQZZ17 28828240 | 102.6787 | 119.3100 NAV 31.12.2020 | 559,445 1.80% | 77,984 77,984 | 16.20% 16.20% |
| **Total Other Alternative Investments** | | | | | | 559,445 0 1.80% | | |
| **Total Alternative Investments, Commodities & Real Estate** | | | | | | 4,690,675 0 15.11% | | |
| **Total Investments** | | | | | | 31,036,408 100.00% | | |
| of which Accrued Interest | | | | | | 0 | | |

001970938 012 058

# 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.

**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-allocable Effect**

As a general rule, in most cases the sum of all the return contributions usually equal the portfolio return figure indicated. In some cases, however, the two figures may not tally exactly (for example, due to rounding differences). These discrepancies are being accounted for and indicated as "Non-allocable effect" return contribution.

**Non-Investment Related Positions**

Non-Investment Related Positions refer to non-asset/ non-investment type positions such as those relating to insurance policies or mortgages. Guarantees, standby letters of credit, holdcovers or other credit instruments which have been issued by the Bank pursuant to facilities granted are reflected under the sub-section entitled "Pro Memoria Positions".

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.

**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.

**Return contribution**

The contribution figure refers to the contribution of an individual asset category and/or currency to the overall performance on a portfolio level. The figure is calculated based on investment related positions using the TWR Daily method (Time Weighted Rate of Return), the return is computed by aggregating the daily returns.

Reference to the average weight of an instrument is computed by dividing the aggregated daily instrument weight by the number of days in the reporting period. The daily weight of an instrument is calculated by dividing the instrument's start of day market value and cash flow by the portfolio's start of day market value and cash flow.

**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 | = | |
| 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 31.12.2020**

AUD 1.0000 = JPY 79.4584
AUD 1.0000 = USD 0.7704
EUR 1.0000 = AUD 1.5955

### 4.2. Legal Information

This ad-hoc investment report is a statement of account provided to you upon your request and in accordance with and subject to the Account Opening Terms and Conditions.

For accounts booked with Credit Suisse AG, Hong Kong Branch: This ad-hoc investment report has been generated specifically for you as additional information for reference only and is not to be treated as the monthly statement of account under section 11(2) of the Securities and Futures (Contract Notes, Statements of Account and Receipts) Rules which we provide to you on a regular basis. This ad-hoc investment report shall be conclusive and binding if the Bank does not receive your objection in writing to any matters contained in this ad-hoc investment report within 90 days from the issue date.

For accounts booked with Credit Suisse AG, Singapore Branch: This ad-hoc investment report shall be conclusive and binding if the Bank does not receive your objection in writing to any matters contained in this ad-hoc investment report within 14 days from the issue date. Assets detailed within this ad-hoc investment report will not be directly custodised by Credit Suisse AG, Singapore Branch but with third party custodians in accounts for and on behalf of Credit Suisse AG, Singapore Branch, unless otherwise informed by the Bank.

For All:
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 prices reflected for instruments and other information detailed within this ad-hoc investment report are attained or derived by the Bank from market data sources believed to be reliable, however the Bank does not make any representation as to the accuracy or completeness of such prices or information. In the absence of reliable market reference prices, the Bank may assign a nominal value or make an appropriate comment on the ad-hoc investment report. As a result, this ad-hoc 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 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.

The Bank will, at the time of printing this ad-hoc 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 by the Bank in this ad-hoc investment report will not always reflect the price indications available on the last business day of the reporting period 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 Relationship Manager if you need further information on the FX conversion rate applied in relation to your CNY positions.

If you have any credit facilities in place with the Bank, please note that potentially all of the assets detailed within this ad-hoc investment report may be held as collateral for those facilities. If you have any questions in relation to the collateral for your facility, please contact your Relationship Manager.

The information in this ad-hoc 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.

The fee charged for the provision of the Bank's Advisory Service (referring to portfolio(s) ending with -30 to -39) is a Flat Fee notwithstanding that prior to June 2017 the fee may have been described as a Management Fee or All-In Fee in statements or documents received by the client whether by hardcopy, email, Internet Banking or any other form of delivery.

Hong Kong Deposit Protection Scheme (the "DPS"): "Protected deposit" is defined under section 2(1) of the Deposit Protection Scheme Ordinance (Cap. 581 of the Laws of Hong Kong) (the "Ordinance"). Protected deposit does not include those specified in section 1 of Schedule 1 of the Ordinance. In particular, please note that a deposit held or placed in an account with the Bank's Singapore branch is not a protected deposit (as defined in the Ordinance) and consequently is not eligible for the protection under the DPS, notwithstanding that the

001970938 012 058

account holding the deposit is managed by representatives of the Bank's Hong Kong branch. In addition, a deposit held or placed in an account with the Bank's Hong Kong branch where the current term negotiated and agreed exceeds 5 years is not a protected deposit as defined in the Ordinance and consequently is not eligible for protection under the DPS. Certificates of Deposit: Investments in certificates of deposit are not protected deposits as defined in the Ordinance and consequently are not eligible for protection under the DPS.

An individual who is an account holder of an Individual or Joint Account with RMB Services opened and maintained with the Bank's Hong Kong branch is requested to notify the Bank immediately if there is any change to such individual's status in terms of holding a HK Identity Card or not.

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

001970938 012 058

# CREDIT SUISSE

## Investment Report 1.1.2021 – 31.1.2021

## APNIC PTY LTD
Portfolio Group: 3000039

This page is intentionally left blank.

Private Banking

# Investment Report 1.1.2021 – 31.1.2021

| | | |
|---|---|---|
| **Portfolio Group** | **3000039** | |
| In the Name of | APNIC PTY LTD | |
| Produced on | 12.2.2021 | |
| Reporting Currency | AUD | |
| Relationship Manager | Patrick Armitage | |
| Phone | +61 2 8205 4451 | |

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

**Table of Contents**

001970938 012 058

# CREDIT SUISSE

## Scope of Analysis
as of 31.1.2021

| Components | Portfolio | Asset Value in AUD | Discretionary Mandate | Opened | Closed | Performance Activation | Performance Deactivation |
|---|---|---|---|---|---|---|---|
| Portfolio Group: 3000039 | | | | | | | |
| **Investment related Positions** | | | | | | | |
| AUD  Portfolio | 3000039-10 | 0 | | 16.08.2013 | | 31.12.2013 | |
| AUD  Portfolio | 3000039-70 | 30,937,562 | Yes | 16.08.2013 | | 31.12.2013 | |
| **Total Investments** | | **30,937,562** | | | | | |
| **Total Wealth** | | **30,937,562** | | | | | |

# 1. Overview

## 1.1. Asset Allocation

**Asset Allocation by Asset Category**
Period 1.1.2021 - 31.1.2021

| | Beginning Market Value in AUD | Change | Ending Market Value in AUD | Ending Market Value Prop. |
|---|---|---|---|---|
| ■ Liquidity & Similar Investments | 1,341,244 | 296,661 | 1,637,905 | 5.29% |
| ■ Fixed Income & Similar Investments | 16,833,501 | -341,055 | 16,492,446 | 53.31% |
| ■ Equities & Similar Investments | 8,170,988 | 85,997 | 8,256,985 | 26.69% |
| ■ Alternative Investments, Commodities & Real Estate | 4,711,862 | -161,637 | 4,550,225 | 14.71% |
| **Total Investments** | **31,057,596** | | **30,937,562** | **100.00%** |
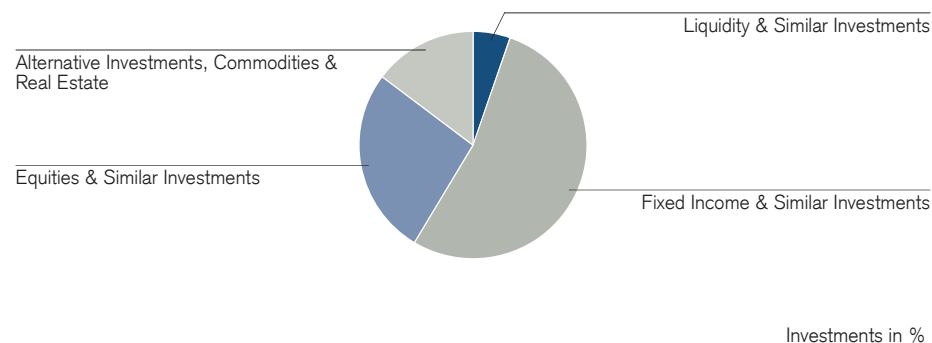
**Asset Allocation by Currency**
Period 1.1.2021 - 31.1.2021

| | Beginning Market Value in AUD | Change | Ending Market Value in AUD | Ending Market Value Prop. |
|---|---|---|---|---|
| ■ AUD - Australian Dollar | 26,486,792 | -93,789 | 26,393,003 | 85.31% |
| ■ USD - US Dollar | 3,637,362 | -104,181 | 3,533,181 | 11.42% |
| ■ EUR - Euro | 626,710 | -12,341 | 614,369 | 1.99% |
| ■ JPY - Japan Yen | 306,732 | 342 | 307,074 | 0.99% |
| ■ GBP - Pound Sterling | 0 | 89,935 | 89,935 | 0.29% |
| **Total Investments** | **31,057,596** | | **30,937,562** | **100.00%** |
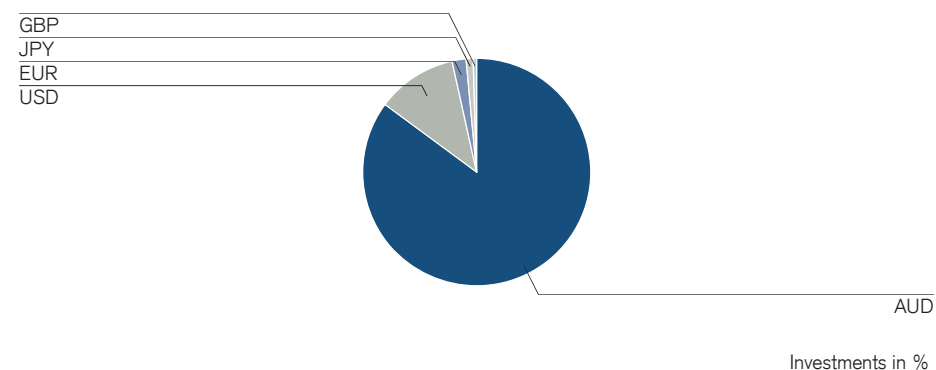
Liquidity & Similar Investments

Alternative Investments, Commodities & Real Estate

Equities & Similar Investments

Fixed Income & Similar Investments

Investments in %

GBP
JPY
EUR
USD

AUD

Investments in %

001970938 012 058

# CREDIT SUISSE

**1.2.    Income and Activity**

**Income Summary**
Period 1.1.2021 - 31.1.2021

|  | Current Period in AUD | Year to Date in AUD |
|---|---|---|
| Cash Dividend | 60,841 | 60,841 |
| Coupon Received/Paid | 0 | 0 |
| Interest Earned | 0 | 0 |
| Interest Paid | 0 | 0 |
| **Net Income** | **60,841** | **60,841** |

**Activity Summary**
Period 1.1.2021 - 31.1.2021

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

001970938 012 058

## 1.3.  Performance

**Performance Summary**
Period 1.1.2021 - 31.1.2021

|  | Asset Value in AUD | Asset Value in AUD |
|---|---|---|
| Ending Market Value | | 30,937,562 |
| Beginning Market Value | | 31,057,596 |
| Asset Flows including | | 0 |
| Inflows | 0 | |
| Outflows | 0 | |
| Net Non-Investment Flows | 0 | |
| Taxes | 0 | |
| Flow Adjusted Value Change | | -120,034 |
| **Cumulative Portfolio Return** – net | | **-0.39%** |



Cumulative Portfolio Return
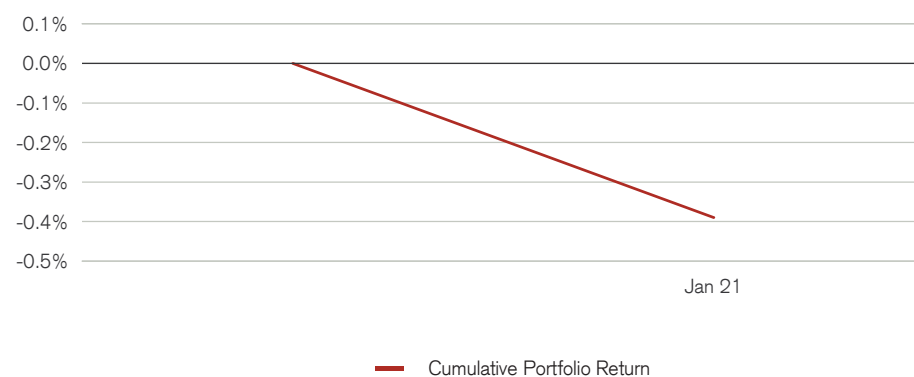
# 2. Analyses

## 2.1. Performance

**Performance Details**
Period 1.1.2020 - 31.1.2021

| | Since Start of Period | Feb 20 | Mar 20 | Apr 20 | May 20 | Jun 20 | Jul 20 | Aug 20 | Sep 20 | Oct 20 | Nov 20 | Dec 20 | Jan 21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ending Market Value | 28,510,970 | 28,219,493 | 26,561,105 | 26,959,853 | 27,374,714 | 27,447,506 | 28,691,351 | 28,959,381 | 29,881,906 | 30,001,462 | 30,942,055 | 31,057,596 | 30,937,562 |
| Beginning Market Value | 27,725,032 | 28,510,970 | 28,219,493 | 26,561,105 | 26,959,853 | 27,374,714 | 27,447,506 | 28,691,351 | 28,959,381 | 29,881,906 | 30,001,462 | 30,942,055 | 31,057,596 |
| Asset Flows including | 0 | 0 | -3,846 | 0 | 0 | -3,675 | 1,000,000 | 0 | 996,136 | 0 | 0 | -4,128 | 0 |
|    Inflows | 0 | 0 | 0 | 0 | 0 | 0 | 1,500,000 | 0 | 1,500,000 | 0 | 0 | 0 | 0 |
|    Outflows | 0 | 0 | 0 | 0 | 0 | 0 | -500,000 | 0 | -500,000 | 0 | 0 | 0 | 0 |
|    Net Non-Investment Flows | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|    Taxes | 0 | 0 | -3,846 | 0 | 0 | -3,675 | 0 | 0 | -3,864 | 0 | 0 | -4,128 | 0 |
| Performance Activated/Deactivated Portfolios | 28,510,970 | | | | | | | | | | | | |
| Flow Adjusted Value Change | -27,725,032 | -291,476 | -1,654,543 | 398,749 | 414,860 | 76,468 | 243,845 | 268,030 | -73,611 | 119,556 | 940,593 | 119,668 | -120,034 |
| ■ **Portfolio Return** – net | **2.83%** | **-1.02%** | **-5.86%** | **1.50%** | **1.54%** | **0.28%** | **0.87%** | **0.93%** | **-0.27%** | **0.40%** | **3.14%** | **0.39%** | **-0.39%** |
| — **Cumulative Portfolio Return** | **2.83%** | **1.78%** | **-4.18%** | **-2.75%** | **-1.25%** | **-0.97%** | **-0.11%** | **0.82%** | **0.55%** | **0.95%** | **4.12%** | **4.52%** | **4.11%** |

001970938 012 058
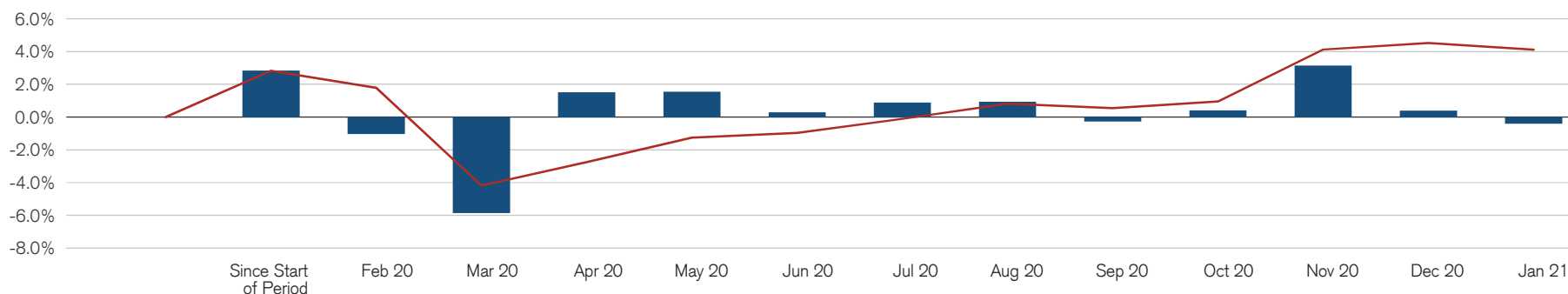
**2.2.    Contribution Analysis**

**Multi-Period Contribution by Asset Category in %**
as of 31.1.2021

| | Month To Date | Quarter To Date | Year To Date | 1 Year | Current Period |
|---|---|---|---|---|---|
| Liquidity & Similar Investments | -0.01 | -0.01 | -0.01 | -0.56 | -0.01 |
| Fixed Income & Similar Investments | -0.21 | -0.21 | -0.21 | 1.56 | -0.21 |
| Equities & Similar Investments | -0.01 | -0.01 | -0.01 | 0.19 | -0.01 |
| Alternative Investments, Commodities & Real Estate | -0.16 | -0.16 | -0.16 | 0.09 | -0.16 |
| Non-Allocable Effect | - | - | - | -0.02 | - |
| **Total** – net *** | **-0.39** | **-0.39** | **-0.39** | **1.24** | **-0.39** |

**Multi-Period Contribution by Currency in %**
as of 31.1.2021

| | Month To Date | Quarter To Date | Year To Date | 1 Year | Current Period |
|---|---|---|---|---|---|
| AUD - Australian Dollar | -0.59 | -0.59 | -0.59 | 1.13 | -0.59 |
| USD - US Dollar | 0.25 | 0.25 | 0.25 | 0.22 | 0.25 |
| EUR - Euro | -0.04 | -0.04 | -0.04 | -0.11 | -0.04 |
| GBP - Pound Sterling | -0.01 | -0.01 | -0.01 | -0.08 | -0.01 |
| JPY - Japan Yen | - | - | - | 0.11 | - |
| CHF - Swiss Franc | - | - | - | -0.01 | - |
| Non-Allocable Effect | - | - | - | -0.02 | - |
| **Total** – net *** | **-0.39** | **-0.39** | **-0.39** | **1.24** | **-0.39** |

*** If applicable, fees charged in the relevant currency will be deducted from the cash account contribution, which is part of the Liquidity & Similar Investments asset category.

001970938 012 058

## 2.3. Contribution - Top Contributors & Detractors

**Top Contributors in %**
as of 31.1.2021

| | Total Return | Average Weight | Contribution |
|---|---|---|---|
| UBS ETC UBS AG, LONDON BRANCH 2007- OPEN END ON UBS BLOOMBER CMCI COMPOSITE TOTAL RETURN | 4.23 | 2.57 | 0.10 |
| SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS EMERGING MARKETS EQUITY PORTFOLIO CAPITALISATION | 5.06 | 1.58 | 0.08 |
| REGISTERED SHS WESTPAC BANKING CORP | 9.09 | 0.72 | 0.06 |
| SHS -UCITS ETF USD C- AMUNDI INDEX SOLUTIONS SICAV - AMUNDI MSCI EMERGING MARKETS CAPITALISATION | 3.60 | 1.45 | 0.05 |
| REGISTERED SHS NATIONAL AUSTRALIA BANK LTD | 4.16 | 0.73 | 0.03 |
| **Total** – net *** | | **7.04** | **0.32** |
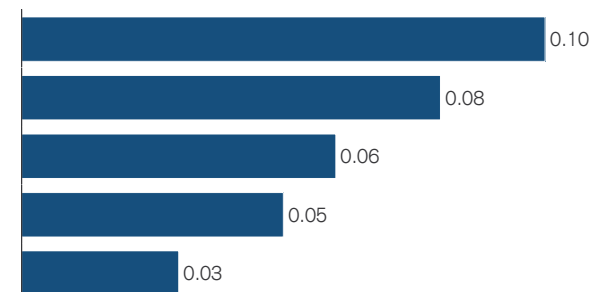
**Top Detractors in %**
as of 31.1.2021

| | Total Return | Average Weight | Contribution |
|---|---|---|---|
| UNITS SPDR S&P/ASX 200 LISTED PROPERTY FUND EXCHANGE TRADED FUND | -5.33 | 2.59 | -0.14 |
| STAPLED SECURITY GOODMAN GROUP | -6.50 | 1.51 | -0.10 |
| UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A- | -0.46 | 18.02 | -0.08 |
| SHS PIMCO FUNDS: GLOBAL INVESTORS SERIES PLC - GLOBAL INVESTMENT GRADE CREDIT FUND INSTITUTIONAL CLASS AUD (HEDGED) | -0.63 | 7.87 | -0.05 |
| PTG.SHS LEGG MASON GLOBAL FUNDS PLC - LEGG MASON WESTERN ASSET MACRO OPPORTUNITIES BOND FUND PREMIER CLASS DISTRIBUTING (S) HEDGED ... | -2.79 | 1.77 | -0.05 |
| **Total** – net *** | | **31.75** | **-0.43** |
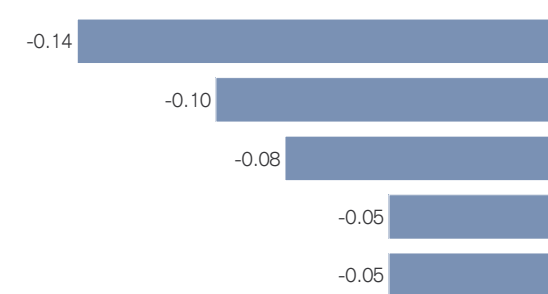
*** If applicable, fees charged in the relevant currency will be deducted from the cash account contribution, which is part of the Liquidity & Similar Investments asset category.

001970938 012 058

# 3. Positions

## 3.1. Investment Related Positions
as of 31.1.2021

| Number/ Nominal | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|
| **Liquidity & Similar Investments** | | | | | | | |
| *Accounts* | | | | | | | |
| AUD 1,636,253.27 | Current Account -20300003970945<br>AUD Portfolio: 3000039-70 | | 1.0000 | | 1,636,253<br><br>5.29% | | |
| USD 1,265.11 | Current Account -20300003970780<br>AUD Portfolio: 3000039-70 | | 1.0000<br>0.7660 AUD/USD | | 1,652<br><br>0.01% | | |
| **Total Liquidity & Similar Investments** | | | | | 1,637,905<br>0<br>5.29% | | |
| **Fixed Income & Similar Investments** | | | | | | | |
| *Fixed Income & Similar Investments AUD* | | | | | | | |
| AUD 1,310,475.85 | UNITS -D- ISHARES AUSTRALIAN BOND INDEX FUND<br>AUD Portfolio: 3000039-70 | AU60BGL01056<br>2244170 | 1.0417 | 1.0779 NAV<br>29.01.2021 | 1,412,568<br><br>4.57% | 47,470<br>47,470 | 3.48%<br>3.48% |
| AUD 2,460,968.28200 | UNITS PERPETUAL ACTIVE FIXED INTEREST FUND<br>AUD Portfolio: 3000039-70 | AU60PER02627<br>35661784 | 1.0665 | 1.0633 NAV<br>25.01.2021 | 2,616,634<br><br>8.46% | -8,024<br>-8,024 | -0.31%<br>-0.31% |
| AUD 4,269,071.2847 | UNITS LEGG MASON WESTERN ASSET AUSTRALIAN BOND TRUST CLASS -A-<br>AUD Portfolio: 3000039-70 | AU60SSB01221<br>2248336 | 1.2514 | 1.3109 BID<br>29.01.2021 | 5,596,411<br><br>18.09% | 253,912<br>253,912 | 4.75%<br>4.75% |
| AUD 1,208,436.71 | UNITS VANGUARD AUSTRALIAN FIXED INTEREST INDEX FUND<br>AUD Portfolio: 3000039-70 | AU60VAN00014<br>1653500 | 1.1473 | 1.1876 NAV<br>29.01.2021 | 1,435,139<br><br>4.64% | 48,745<br>48,745 | 3.52%<br>3.52% |

001970938 012 058

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 | 28,807 | SHS -I- AUD NEUBERGER BERMAN INVESTMENT FUNDS PLC - NEUBERGER BERMAN EMERGING MARKET DEBT - HARD CURRENCY FUND AUD Portfolio: 3000039-70 | IE00B986FB81 53616359 | 10.5258 | 10.9500 NAV 29.01.2021 | 315,437 1.02% | 12,219 12,219 | 4.03% 4.03% |
| AUD | 184,553 -21,515 | SHS PIMCO FUNDS: GLOBAL INVESTORS SERIES PLC - GLOBAL INVESTMENT GRADE CREDIT FUND INSTITUTIONAL CLASS AUD (HEDGED) of which is pending settlement AUD Portfolio: 3000039-70 | IE00BL0BLL78 3752613 | 10.7673 | 10.9700 NAV 29.01.2021 | 2,024,546 6.54% | 37,404 37,404 | 1.88% 1.88% |
| AUD | 348,385 | SHS -L3- HEDGED AUD FEDERATED HERMES INVESTMENT FUNDS PLC - FEDERATED HERMES GLOBAL HIGH YIELD CREDIT FUND AUD Portfolio: 3000039-70 | IE00BMZ15N91 57259812 | 3.0659 | 3.1890 NAV 29.01.2021 | 1,111,000 3.59% | 42,874 42,874 | 4.01% 4.01% |
| AUD | 6,741 | SHS -I AUD HEDGED- AXA WORLD FUNDS SICAV - GLOBAL INFLATION BONDS DISTRIBUTION AUD Portfolio: 3000039-70 | LU1774150491 40510321 | 114.2871 | 115.3000 NAV 29.01.2021 | 777,237 2.51% | 6,828 6,828 | 0.89% 0.89% |
| AUD | 4,401 | SHS -RA- GAM MULTIBOND SICAV - LOCAL EMERGING BOND DISTRIBUTION AUD Portfolio: 3000039-70 | LU2128492191 52867287 | 96.1440 | 94.5000 NAV 29.01.2021 | 415,895 1.34% | -7,235 -7,235 | -1.71% -1.71% |

001970938 012 058

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 | 67,391 | SHS -I MINC HEDGED AUD- ABERDEEN STANDARD SICAV I SICAV - EMERGING MARKETS CORPORATE BOND FUND DISTRIBUTION AUD Portfolio: 3000039-70 | LU2146569814 53902295 | 11.0585 | 11.6867 NAV 29.01.2021 | 787,578 2.55% | 42,337 42,337 | 5.68% 5.68% |

| **Total Fixed Income & Similar Investments** | | | | | | 16,492,446 0 53.31% | | |

**Equities & Similar Investments**
Equities & Similar Investments AUD

| AUD | 5,320 | REGISTERED SHS AUSTRALIA & NEW ZEALAND BANKING GROUP LTD AUD Portfolio: 3000039-70 | AU000000ANZ3 640139 ANZ.AX | 28.2441 | 23.7100 CLO 29.01.2021 | 126,137 0.41% | -24,121 -24,121 | -16.05% -16.05% |
| AUD | 20,674 6,434 | REGISTERED SHS ALUMINA LTD of which is pending settlement AUD Portfolio: 3000039-70 | AU000000AWC3 1526402 AWC.AX | 1.8122 | 1.6950 CLO 29.01.2021 | 35,042 0.11% | -2,423 -2,423 | -6.47% -6.47% |
| AUD | 24,195 | REGISTERED SHS AURIZON HOLDINGS LTD AUD Portfolio: 3000039-70 | AU000000AZJ1 20175896 AZJ.AX | 4.8781 | 3.7000 CLO 29.01.2021 | 89,522 0.29% | -28,504 -28,504 | -24.15% -24.15% |
| AUD | 7,601 | REGISTERED SHS BHP GROUP LTD AUD Portfolio: 3000039-70 | AU000000BHP4 640390 BHP.AX | 30.4103 | 43.5600 CLO 29.01.2021 | 331,100 1.07% | 99,951 99,951 | 43.24% 43.24% |
| AUD | 2,316 | REGISTERED SHS CARSALES.COM LTD AUD Portfolio: 3000039-70 | AU000000CAR3 10476764 CAR.AX | 15.8638 | 19.6200 CLO 29.01.2021 | 45,440 0.15% | 8,699 8,699 | 23.68% 23.68% |

001970938 012 058

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 | 3,399 | REGISTERED SHS COMMONWEALTH BANK OF AUSTRALIA AUD Portfolio: 3000039-70 | AU000000CBA7 646758 CBA.AX | 75.5562 | 83.5100 CLO 29.01.2021 | 283,850 0.92% | 27,035 27,035 | 10.53% 10.53% |
| AUD | 3,104 | REGISTERED SHS COMPUTERSHARE LTD AUD Portfolio: 3000039-70 | AU000000CPU5 241285 CPU.AX | 16.0565 | 14.3700 CLO 29.01.2021 | 44,604 0.14% | -5,235 -5,235 | -10.50% -10.50% |
| AUD | 1,125 | REGISTERED SHS CSL LTD AUD Portfolio: 3000039-70 | AU000000CSL8 241548 CSL.AX | 139.1435 | 271.7200 CLO 29.01.2021 | 305,685 0.99% | 149,149 149,149 | 95.28% 95.28% |
| AUD | 2,224 | REGISTERED SHS FLIGHT CENTRE TRAVEL GROUP LTD AUD Portfolio: 3000039-70 | AU000000FLT9 90307 FLT.AX | 19.1267 | 14.0800 CLO 29.01.2021 | 31,314 0.10% | -11,224 -11,224 | -26.39% -26.39% |
| AUD | 1,131 -454 | REGISTERED SHS FORTESCUE METALS GROUP LTD of which is pending settlement AUD Portfolio: 3000039-70 | AU000000FMG4 1655130 FMG.AX | 8.4965 | 21.7900 CLO 29.01.2021 | 24,644 0.08% | 15,035 15,035 | 156.46% 156.46% |
| AUD | 2,165 | CHESS UNITS OF FOREIGN SECURITIES JAMES HARDIE INDUSTRIES PLC AUD Portfolio: 3000039-70 | AU000000JHX1 1303670 JHX.AX | 23.8012 | 36.7900 CLO 29.01.2021 | 79,650 0.26% | 28,121 28,121 | 54.57% 54.57% |
| AUD | 1,846 | REGISTERED SHS MAGELLAN FINANCIAL GROUP LTD AUD Portfolio: 3000039-70 | AU000000MFG4 2807450 MFG.AX | 40.2598 | 47.9200 CLO 29.01.2021 | 88,460 0.29% | 14,141 14,141 | 19.03% 19.03% |
| AUD | 413 | REGISTERED SHS MACQUARIE GROUP LTD AUD Portfolio: 3000039-70 | AU000000MQG1 3422370 MQG.AX | 74.1362 | 131.4000 CLO 29.01.2021 | 54,268 0.18% | 23,650 23,650 | 77.24% 77.24% |

001970938 012 058

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| AUD | 9,618 | REGISTERED SHS NATIONAL AUSTRALIA BANK LTD<br>AUD Portfolio: 3000039-70 | AU000000NAB4<br>641643<br>NAB.AX | 24.0162 | 23.5400 CLO<br>29.01.2021 | 226,408<br><br>0.73% | -4,580<br>-4,580 | -1.98%<br>-1.98% |
| AUD | 4,833 | REGISTERED SHS NEWCREST MINING LTD<br>AUD Portfolio: 3000039-70 | AU000000NCM7<br>650853<br>NCM.AX | 27.8768 | 25.1200 CLO<br>29.01.2021 | 121,405<br><br>0.39% | -13,324<br>-13,324 | -9.89%<br>-9.89% |
| AUD | 11,106 | REGISTERED SHS ORIGIN ENERGY LTD<br>AUD Portfolio: 3000039-70 | AU000000ORG5<br>1051439<br>ORG.AX | 7.8653 | 4.7400 CLO<br>29.01.2021 | 52,642<br><br>0.17% | -34,710<br>-34,710 | -39.74%<br>-39.74% |
| AUD | 2,172 | REGISTERED SHS OZ MINERALS LTD<br>AUD Portfolio: 3000039-70 | AU000000OZL8<br>4334812<br>OZL.AX | 10.0782 | 18.6500 CLO<br>29.01.2021 | 40,508<br><br>0.13% | 18,618<br>18,618 | 85.05%<br>85.05% |
| AUD | 13,146 | REGISTERED SHS QANTAS AIRWAYS LTD<br>AUD Portfolio: 3000039-70 | AU000000QAN2<br>390413<br>QAN.AX | 5.8966 | 4.5000 CLO<br>29.01.2021 | 59,157<br><br>0.19% | -18,359<br>-18,359 | -23.68%<br>-23.68% |
| AUD | 6,263 | REGISTERED SHS QBE INSURANCE GROUP LTD<br>AUD Portfolio: 3000039-70 | AU000000QBE9<br>641857<br>QBE.AX | 11.5743 | 8.0300 CLO<br>29.01.2021 | 50,292<br><br>0.16% | -22,198<br>-22,198 | -30.62%<br>-30.62% |
| AUD | 1,659 | REGISTERED SHS RIO TINTO LTD<br>AUD Portfolio: 3000039-70 | AU000000RIO1<br>603520<br>RIO.AX | 72.7603 | 110.3100 CLO<br>29.01.2021 | 183,004<br><br>0.59% | 62,295<br>62,295 | 51.61%<br>51.61% |
| AUD | 1,345 | SHS RESMED INC CHESS DEPOSITORY INTERESTS REPR 1/10 SH<br>AUD Portfolio: 3000039-70 | AU000000RMD6<br>1058638<br>RMD.AX | 14.4915 | 27.2200 CLO<br>29.01.2021 | 36,611<br><br>0.12% | 17,120<br>17,120 | 87.83%<br>87.83% |

001970938 012 058

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| AUD | 17,484 | REGISTERED SHS SOUTH32 LTD<br>AUD Portfolio: 3000039-70 | AU000000S320<br>27547963<br>S32.AX | 2.6148 | 2.5400 CLO<br>29.01.2021 | 44,409<br><br>0.14% | -1,308<br>-1,308 | -2.86%<br>-2.86% |
| AUD | 67,137 | UNITS SPDR S&P/ASX 200 LISTED PROPERTY<br>FUND EXCHANGE TRADED FUND<br>AUD Portfolio: 3000039-70 | AU000000SLF1<br>1377855<br>SLF.AX | 12.5249 | 11.7300 CLO<br>29.01.2021 | 787,517<br><br>2.55% | -53,370<br>-53,370 | -6.35%<br>-6.35% |
| AUD | 4,988 | UNITS SPDR S&P/ASX 200 FUND ETF<br>AUSTRALIAN EQUITY EXCHANGE TRADED<br>FUNDS<br>AUD Portfolio: 3000039-70 | AU000000STW9<br>1285707<br>STW.AX | 54.0731 | 61.2200 CLO<br>29.01.2021 | 305,365<br><br>0.99% | 35,649<br>35,649 | 13.22%<br>13.22% |
| AUD | 13,494 | REGISTERED SHS TELSTRA CORPORATION<br>LTD<br>AUD Portfolio: 3000039-70 | AU000000TLS2<br>720464<br>TLS.AX | 4.5954 | 3.1200 CLO<br>29.01.2021 | 42,101<br><br>0.14% | -19,909<br>-19,909 | -32.11%<br>-32.11% |
| AUD | 2,899 | SHS VANGUARD MSCI AUSTRALIAN SMALL<br>COMPANIES INDEX ETF EXCHANGE TRADED<br>FUND<br>AUD Portfolio: 3000039-70 | AU000000VSO2<br>13053435<br>VSO.AX | 59.1150 | 62.8400 CLO<br>29.01.2021 | 182,173<br><br>0.59% | 10,799<br>10,799 | 6.30%<br>6.30% |
| AUD | 10,751 | REGISTERED SHS WESTPAC BANKING CORP<br>AUD Portfolio: 3000039-70 | AU000000WBC1<br>642372<br>WBC.AX | 27.1618 | 21.1300 CLO<br>29.01.2021 | 227,169<br><br>0.73% | -64,848<br>-64,848 | -22.21%<br>-22.21% |
| AUD | 981 | REGISTERED SHS WESFARMERS LTD<br>AUD Portfolio: 3000039-70 | AU000000WES1<br>642397<br>WES.AX | 32.9532 | 54.6100 CLO<br>29.01.2021 | 53,572<br><br>0.17% | 21,245<br>21,245 | 65.72%<br>65.72% |
| AUD | 4,033 | REGISTERED SHS WOOLWORTHS GROUP<br>LTD<br>AUD Portfolio: 3000039-70 | AU000000WOW2<br>81350<br>WOW.AX | 32.4384 | 40.8600 CLO<br>29.01.2021 | 164,788<br><br>0.53% | 33,964<br>33,964 | 25.96%<br>25.96% |

001970938 012 058

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 | 5,041 | REGISTERED SHS WOODSIDE PETROLEUM LTD AUD Portfolio: 3000039-70 | AU000000WPL2 642429 WPL.AX | 29.0162 | 24.4700 CLO 29.01.2021 | 123,353 0.40% | -22,917 -22,917 | -15.67% -15.67% |
| AUD | 6,582 | REGISTERED SHS COLES GROUP LTD AUD Portfolio: 3000039-70 | AU0000030678 44059594 COL.AX | 16.9559 | 18.2100 CLO 29.01.2021 | 119,858 0.39% | 8,255 8,255 | 7.40% 7.40% |
| AUD | 638 | UNITS ISHARES S&P 500 AUD HEDGED ETF EXCHANGE TRADED FUND AUD Portfolio: 3000039-70 | AU00000IHVV8 26323289 IHVV.AX | 436.9500 | 444.3700 CLO 29.01.2021 | 283,508 0.92% | 4,734 4,734 | 1.70% 1.70% |
| AUD | 0 | UNITS ABERDEEN STANDARD EMERGING OPPORTUNITIES FUND AUD Portfolio: 3000039-70 | AU60ETL00329 2220820 | | 2.4892 NAV 29.01.2021 | | | |
| AUD | 3,961 | REGISTERED SHS THE A2 MILK COMPANY LTD AUD Portfolio: 3000039-70 | NZATME0002S8 1841567 A2M.AX | 14.6615 | 10.7000 CLO 29.01.2021 | 42,383 0.14% | -15,692 -15,692 | -27.02% -27.02% |
| **Total Equities & Similar Investments AUD** | | | | | | 4,685,943 0 15.15% | | |
| **Equities & Similar Investments EUR** | | | | | | | | |
| EUR | 5,779 | SHS EUR ISHARES II PLC - ISHARES CORE MSCI EUROPE UCITS ETF AUD Portfolio: 3000039-70 | IE00B1YZSC51 3246398 IQQY.DE | 23.9487 1.5707 EUR/AUD | 24.2400 OFF 29.01.2021 | 221,382 0.72% | 4,003 2,660 1,343 | 1.84% 1.22% 0.63% |

001970938 012 058

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 % |
|---|---|---|---|---|---|---|---|---|
| EUR | 13,180 | ACCUM.PTG.SHS WELLINGTON MANAGEMENT FUNDS (IRELAND) PLC - WELLINGTON STRATEGIC EUROPEAN EQUITY FUND CLASS -N- UNHEDGED EUR AUD Portfolio: 3000039-70 | IE00B9DPD161 20938626 | 14.9673 1.5282 EUR/AUD | 18.8671 NAV 29.01.2021 | 392,987 1.27% | 91,513 81,230 10,283 | 30.36% 26.06% 4.30% |
| **Total Equities & Similar Investments EUR** | | | | | | **614,369** **0** **1.99%** | | |
| **Equities & Similar Investments GBP** | | | | | | | | |
| GBP | 465 | ACCUM SHS GBP ISHARES VII PLC - ISHARES CORE FTSE 100 UCITS ETF GBP (ACC) AUD Portfolio: 3000039-70 | IE00B53HP851 10737489 CUKX.L | 112.9165 1.7703 GBP/AUD | 108.0400 OFF 29.01.2021 | 89,935 0.29% | -3,019 -4,059 1,041 | -3.25% -4.32% 1.07% |
| **Total Equities & Similar Investments GBP** | | | | | | **89,935** **0** **0.29%** | | |
| **Equities & Similar Investments JPY** | | | | | | | | |
| JPY | 860 | UNITS NEXT FUNDS NIKKEI 225 EXCHANGE TRADED FUND AUD Portfolio: 3000039-70 | JP3027650005 1264151 1321.T | 20,119.1547 83.4958 AUD/JPY | 28,580.0000 CLO 29.01.2021 | 307,074 0.99% | 99,848 90,906 8,942 | 48.18% 42.05% 6.13% |
| **Total Equities & Similar Investments JPY** | | | | | | **307,074** **0** **0.99%** | | |
| **Equities & Similar Investments USD** | | | | | | | | |
| USD | 221 | ACCUM.PTG.SHS ISHARES VII PLC - ISHARES NASDAQ 100 UCITS ETF USD AUD Portfolio: 3000039-70 | IE00B53SZB19 10737617 CSNDX.S | 286.7120 0.7948 AUD/USD | 730.4000 CLO 29.01.2021 | 210,722 0.68% | 130,999 128,005 2,994 | 164.32% 154.75% 9.57% |

001970938 012 058

# 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 % |
|---|---|---|---|---|---|---|---|
| USD 4,853 | ACCUM SHS -1C- USD XTRACKERS (IE) PLC - XTRACKERS MSCI USA UCITS ETF AUD Portfolio: 3000039-70 | IE00BJ0KDR00 24268896 XD9U.L | 92.2228 0.7098 AUD/USD | 106.1800 OFF 29.01.2021 | 672,682 2.17% | 42,168 88,423 -46,255 | 6.69% 15.13% -8.45% |
| USD 6,709 | SHS -1C- XTRACKERS SICAV - XTRACKERS CSI300 SWAP UCITS ETF CAPITALISATION AUD Portfolio: 3000039-70 | LU0779800910 18841290 XCHA.L | 15.4300 0.7212 AUD/USD | 19.3675 OFF 29.01.2021 | 169,624 0.55% | 26,096 34,485 -8,389 | 18.18% 25.52% -7.34% |
| USD 18,058 | SHS -R (ACC.)- GOLDMAN SACHS FUNDS SICAV - GOLDMAN SACHS EMERGING MARKETS EQUITY PORTFOLIO CAPITALISATION AUD Portfolio: 3000039-70 | LU0830622741 19578737 | 14.7192 0.7015 AUD/USD | 20.8200 NAV 29.01.2021 | 490,803 1.59% | 111,887 143,817 -31,930 | 29.53% 41.45% -11.92% |
| USD 56,288 | SHS -UCITS ETF USD C- AMUNDI INDEX SOLUTIONS SICAV - AMUNDI MSCI EMERGING MARKETS CAPITALISATION AUD Portfolio: 3000039-70 | LU1681045453 38785088 AUEM.PA | 4.8465 0.7269 AUD/USD | 6.1066 CLO 29.01.2021 | 448,717 1.45% | 73,416 92,594 -19,178 | 19.56% 26.00% -6.44% |
| USD 1,117 | SHS ISHARES GLOBAL HEALTHCARE ETF AUD Portfolio: 3000039-70 | US4642873255 1352444 IXJ.P | 64.2835 0.6276 AUD/USD | 76.8300 CLO 29.01.2021 | 112,032 0.36% | -2,382 18,295 -20,677 | -2.08% 19.52% -21.60% |
| USD 942 | TRUST UNITS SPDR S&P 500 ETF TRUST AUD Portfolio: 3000039-70 | US78462F1030 45088 SPY.P | 241.9643 0.7565 AUD/USD | 370.0700 CLO 29.01.2021 | 455,084 1.47% | 153,783 157,535 -3,752 | 51.04% 52.94% -1.90% |
| **Total Equities & Similar Investments USD** | | | | | **2,559,665** **0** **8.27%** | | |
| **Total Equities & Similar Investments** | | | | | **8,256,985** **0** **26.69%** | | |

001970938 012 058

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 % |
|---|---|---|---|---|---|---|---|---|

**Alternative Investments, Commodities & Real Estate**

Hedge Funds

| AUD | 490,914.23 | UNITS BLACKROCK GLOBAL ALLOCATION FUND (AUST) CLASS -D- WHOLESALE AUD Portfolio: 3000039-70 | AU60MAL00181 3379478 | 1.2334 | 1.3467 NAV 29.01.2021 | 661,114 2.14% | 55,626 55,626 | 9.19% 9.19% |
|---|---|---|---|---|---|---|---|---|
| AUD | 2,733 | ACCUM SHS -I- HEDGED AUD PGIM FUNDS PLC - PGIM QMAW KEYNES SYSTEMATIC ABSOLUTE RETURN FUND AUD Portfolio: 3000039-70 | IE00BKV41X02 54282717 | 101.1169 | 105.7230 NAV 29.01.2021 | 288,941 0.93% | 12,588 12,588 | 4.56% 4.56% |
| AUD | 4,502.172 | ACCUM SHS -A- AUD MARSHALL WACE FUNDS PLC - MW GLOBAL OPPORTUNITIES FUND AUD Portfolio: 3000039-70 | IE00BMPRT797 56741323 | 100.3411 | 109.1070 NAV 31.12.2020 | 491,218 1.59% | 39,466 39,466 | 8.74% 8.74% |
| USD | 164.429 | RED.PTG.SHS -A- CS RENAISSANCE ALTERNATIVE ACCESS FUND LTD USD AUD Portfolio: 3000039-70 | KYG258511099 34032546 | 1,133.2808 0.7185 AUD/USD | 778.9961 EST 31.01.2021 | 167,213 0.54% | -92,151 -76,048 -16,103 | -35.53% -31.26% -4.27% |

| Total Hedge Funds | | | | | | 1,608,487 0 5.20% | | |
|---|---|---|---|---|---|---|---|---|

Private Equity

| AUD | 248,927.18 | UNITS PARTNERS GROUP GLOBAL VALUE FUND (AUD) WHOLESALE AUD Portfolio: 3000039-70 | AU60ETL02762 26607292 | 2.0617 | 2.6386 NAV 31.12.2020 | 656,819 2.12% | 143,600 143,600 | 27.98% 27.98% |
|---|---|---|---|---|---|---|---|---|

| Total Private Equity | | | | | | 656,819 0 2.12% | | |
|---|---|---|---|---|---|---|---|---|

001970938 012 058

| Number/ Nominal | | Description | Identification<br>ISIN<br>Valoren Number<br>Ticker | Cost Valuation<br>Price<br>Exchange Rate | Current Valuation<br>Price/ Type<br>Date | Value in AUD<br>of which Accrued Interest<br>Proportion in % | Profit/ Loss<br>Unrealized in AUD<br>of which Instrument<br>of which Forex | P/L<br>Unreal. in %<br>Instr. in %<br>FX in % |
|---|---|---|---|---|---|---|---|---|
| **Commodities & Precious Metals** | | | | | | | | |
| AUD | 697 | ETC SECURITY ETFS METAL SECURITIES AUSTRALIA LTD 2003-WITHOUT FIXED MATURITY ON GOLD COMMODITY | AU00000GOLD7<br>1583458<br>GOLD.AX | 172.2598 | 225.2600 CLO<br>29.01.2021 | 157,006<br><br>0.51% | 36,941<br>36,941 | 30.77%<br>30.77% |
| | -497 | of which is pending settlement<br>AUD Portfolio: 3000039-70 | | | | | | |
| USD | 666 | UBS ETC UBS AG, LONDON BRANCH 2007-OPEN END ON UBS BLOOMBER CMCI COMPOSITE TOTAL RETURN<br>AUD Portfolio: 3000039-70 | CH0031794263<br>3179426<br>TCMCI.S | 971.5610<br>0.8149 AUD/USD | 925.5000 CLO<br>29.01.2021 | 804,651<br><br>2.60% | 10,579<br>-40,046<br>50,626 | 1.33%<br>-4.74%<br>6.07% |
| **Total Commodities & Precious Metals** | | | | | | 961,658<br>0<br>3.11% | | |
| **Real Estate** | | | | | | | | |
| AUD | 22,775 | STAPLED SECURITY DEXUS<br>AUD Portfolio: 3000039-70 | AU000000DXS1<br>3819970<br>DXS.AX | 11.1990 | 9.0100 CLO<br>29.01.2021 | 205,203<br><br>0.66% | -49,854<br>-49,854 | -19.55%<br>-19.55% |
| AUD | 26,011 | STAPLED SECURITY GOODMAN GROUP<br>AUD Portfolio: 3000039-70 | AU000000GMG2<br>18079202<br>GMG.AX | 9.6273 | 17.6800 CLO<br>29.01.2021 | 459,874<br><br>1.49% | 209,458<br>209,458 | 83.64%<br>83.64% |
| AUD | 48,048 | STAPLED SECURITY MIRVAC GROUP<br>AUD Portfolio: 3000039-70 | AU000000MGR9<br>821911<br>MGR.AX | 1.8618 | 2.3800 CLO<br>29.01.2021 | 114,354<br><br>0.37% | 24,896<br>24,896 | 27.83%<br>27.83% |
| **Total Real Estate** | | | | | | 779,431<br>0<br>2.52% | | |

001970938 012 058

# 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 % |
|---|---|---|---|---|---|---|---|
| **Other Alternative Investments** | | | | | | | |
| AUD 4,689 | PTG.SHS LEGG MASON GLOBAL FUNDS PLC - LEGG MASON WESTERN ASSET MACRO OPPORTUNITIES BOND FUND PREMIER CLASS DISTRIBUTING (S) HEDGED AUD AUD Portfolio: 3000039-70 | IE00BYYQZZ17 28828240 | 102.6787 | 115.9800 NAV 29.01.2021 | 543,830 1.76% | 62,370 62,370 | 12.95% 12.95% |
| **Total Other Alternative Investments** | | | | | 543,830 0 1.76% | | |
| **Total Alternative Investments, Commodities & Real Estate** | | | | | 4,550,225 0 14.71% | | |
| **Total Investments** | | | | | 30,937,562 100.00% | | |
| of which Accrued Interest | | | | | 0 | | |

001970938 012 058

# 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-allocable Effect**
As a general rule, in most cases the sum of all the return contributions usually equal the portfolio return figure indicated. In some cases, however, the two figures may not tally exactly (for example, due to rounding differences). These discrepancies are being accounted for and indicated as "Non-allocable effect" return contribution.

**Non-Investment Related Positions**
Non-Investment Related Positions refer to non-asset/ non-investment type positions such as those relating to insurance policies or mortgages. Guarantees, standby letters of credit, holdcovers or other credit instruments which have been issued by the Bank pursuant to facilities granted are reflected under the sub-section entitled "Pro Memoria Positions".
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.

**Return contribution**

The contribution figure refers to the contribution of an individual asset category and/or currency to the overall performance on a portfolio level. The figure is calculated based on investment related positions using the TWR Daily method (Time Weighted Rate of Return), the return is computed by aggregating the daily returns.

Reference to the average weight of an instrument is computed by dividing the aggregated daily instrument weight by the number of days in the reporting period. The daily weight of an instrument is calculated by dividing the instrument's start of day market value and cash flow by the portfolio's start of day market value and cash flow.

**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 =
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 31.1.2021

AUD 1.0000 = JPY 80.0420
AUD 1.0000 = USD 0.7660
EUR 1.0000 = AUD 1.5804

GBP 1.0000 = AUD 1.7902

#### 4.2. Legal Information

This ad-hoc investment report is a statement of account provided to you upon your request and in accordance with and subject to the Account Opening Terms and Conditions.

For accounts booked with Credit Suisse AG, Hong Kong Branch: This ad-hoc investment report has been generated specifically for you as additional information for reference only and is not to be treated as the monthly statement of account under section 11(2) of the Securities and Futures (Contract Notes, Statements of Account and Receipts) Rules which we provide to you on a regular basis. This ad-hoc investment report shall be conclusive and binding if the Bank does not receive your objection in writing to any matters contained in this ad-hoc investment report within 90 days from the issue date.

For accounts booked with Credit Suisse AG, Singapore Branch: This ad-hoc investment report shall be conclusive and binding if the Bank does not receive your objection in writing to any matters contained in this ad-hoc investment report within 14 days from the issue date. Assets detailed within this ad-hoc investment report will not be directly custodised by Credit Suisse AG, Singapore Branch but with third party custodians in accounts for and on behalf of Credit Suisse AG, Singapore Branch, unless otherwise informed by the Bank.

For All:
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 prices reflected for instruments and other information detailed within this ad-hoc investment report are attained or derived by the Bank from market data sources believed to be reliable, however the Bank does not make any representation as to the accuracy or completeness of such prices or information. In the absence of reliable market reference prices, the Bank may assign a nominal value or make an appropriate comment on the ad-hoc investment report. As a result, this ad-hoc 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 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.

The Bank will, at the time of printing this ad-hoc 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 by the Bank in this ad-hoc investment report will not always reflect the price indications available on the last business day of the reporting period 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 Relationship Manager if you need further information on the FX conversion rate applied in relation to your CNY positions.

If you have any credit facilities in place with the Bank, please note that potentially all of the assets detailed within this ad-hoc investment report may be held as collateral for those facilities. If you have any questions in relation to the collateral for your facility, please contact your Relationship Manager.

The information in this ad-hoc 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.

The fee charged for the provision of the Bank's Advisory Service (referring to portfolio(s) ending with -30 to -39) is a Flat Fee notwithstanding that prior to June 2017 the fee may have been described as a Management Fee or All-In Fee in statements or documents received by the client whether by hardcopy, email, Internet Banking or any other form of delivery.

Hong Kong Deposit Protection Scheme (the "DPS"): "Protected deposit" is defined under section 2(1) of the Deposit Protection Scheme Ordinance (Cap. 581 of the Laws of Hong Kong) (the "Ordinance"). Protected deposit does not include those specified in section 1 of Schedule 1 of the Ordinance. In particular, please note that a deposit held or placed in an account with the Bank's Singapore branch is not a protected deposit (as defined in the Ordinance) and consequently is not eligible for the protection under the DPS, notwithstanding that the

001970938 012 058

account holding the deposit is managed by representatives of the Bank's Hong Kong branch. In addition, a deposit held or placed in an account with the Bank's Hong Kong branch where the current term negotiated and agreed exceeds 5 years is not a protected deposit as defined in the Ordinance and consequently is not eligible for protection under the DPS. Certificates of Deposit: Investments in certificates of deposit are not protected deposits as defined in the Ordinance and consequently are not eligible for protection under the DPS.

An individual who is an account holder of an Individual or Joint Account with RMB Services opened and maintained with the Bank's Hong Kong branch is requested to notify the Bank immediately if there is any change to such individual's status in terms of holding a HK Identity Card or not.

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

CREDIT SUISSE

# APNIC Monthly Reporting

## Summary

- The APNIC portfolio continued its positive momentum in December, indicatively up 0.33% for the month.

- Global equities ex-Australia ended 2020 on a positive note, bouncing 4.62% in USD terms in December on the back of political and vaccine optimism. However, a stronger AUD moderated returns in AUD terms to 0.03%.

- Australian equities advanced 1.21%.

- Australian 10 year bond yields rose a modest 7 bps to 0.97%.

## Market Commentary

Global equities ended 2020 on a positive note as a Biden victory in the US presidential election, constructive vaccine developments and a Brexit deal bolstered market sentiment. However, a strong AUD moderated returns in AUD terms which resulted in Australian, Emerging Market, European and US equities returns in AUD terms of 1.21%, 3.00%, 0.34% and -0.14%, respectively. December was a relatively uneventful month for bond markets with the repricing of inflation expectations leading to a modest rise in 10 year bond yields in Australia and the US of just 7 bps to 0.97% and 0.91%.

The Australian economy appears to be making a steady recovery post the containment of a second wave of the virus in Victoria earlier in the year. Market activity improved in November with building approvals printing ahead of expectations at 2.6% and CoreLogic recording a third consecutive monthly rise of home value growth in December. The October unemployment rate of 6.8% beat expectations and Retail Sales grew a healthy 7% in November compared to 1.4% in the prior month.

US economic data was mixed with an overall recovery picture tainted by the negative impacts of surging COVID-19 cases in several states. On the positive side, 3Q GDP printed at 33.4% (annualised rate), preliminary November durable goods orders of 0.9% beat expectations and mortgage applications increased in December. However, the drag from a continued rise in COVID-19 cases was visible in the November industrial production figure which fell from 1.1% to 0.4%, a rise of initial jobless claims in December and disappointing December consumer confidence survey results.

The European economy continues to struggle as stricter lockdowns aimed at containing the spread of COVID-19 hamper an economy that was already in a weakened position pre-COVID-19. November retail sales YoY fell to -2.9% compared to a gain of 4.3% in the prior month and November CPI YoY was stuck at a negative level of -0.3%. The December composite PMI disappointed with a contractionary reading of 49.1 as both the manufacturing and services sectors deteriorated. Consumer, industrial and services confidence in December were all negative. That said, positive news came at the end of the month with a deal finally being agreed upon by the European Union and the exiting UK.

China continues to lead on the economic recovery front. November industrial production YoY was a positive 7% and December manufacturing and non-manufacturing PMIs of 51.9 and 55.7 signalled mild expansion. November retail sales increased to 5% YoY from 4.3% and is the fourth consecutive month of positive growth. New loans in November also increased to 1.43 trillion from 0.69 trillion, reflecting the strength of activity in the country.

In the local market, the top performing sectors were Information Technology (+9.64%), Materials (+8.75%) and Consumer Staples (+1.97%) while Utilities (-5.31%), Healthcare (-4.82%) and Industrials (-2.71%) were the worst performers.

## Market Value as at 31 December 2020

|  | Market Value |
| --- | --- |
| **APNIC Portfolio** | **A$31,040,776** |

## Performance as of 31 December 2020

| | APNIC Portfolio | | | |
| --- | --- | --- | --- | --- |
| | Portfolio | Benchmark | Relative | CPI + 2.5% |
| **Month** | 0.33% | 0.50% | -0.17% | 0.27% |
| **3 Months** | 3.89% | 4.06% | -0.17% | 0.80% |
| **Year To Date** | 4.46% | 5.32% | -0.86% | 3.15% |
| **1 Year** | 4.46% | 5.32% | -0.86% | 3.15% |
| **3 Years pa** | 5.97% | 6.14% | -0.17% | 3.95% |
| **Since Inception pa** | 5.56% | 5.81% | -0.25% | 4.25% |

* Performance is after fees but before franking

## Positive Contributors to Performance

Australian stocks performing well included:

## Fortescue Metals (+28.5%)

Australia's leading pure play iron ore miner continued to benefit from large increases in spot iron ore prices given strong steel production in China and production downgrades from Brazil. The company's recent investor update highlighted positive operational trends through incremental production growth and strong cost control facilitating high margins in the current environment. Investors continue to upgrade cash flow expectations resulting in higher expected payouts to shareholders in 2021.

## Oz Minerals (+15.7%)

The share price of Australia's leading pure copper mining exposure rallied significantly given strong copper prices. Management also confirmed the ramp up of its new Carrapateena mine has been completed 6 months earlier than expected. Initiatives to extend the life of its Prominent Hill mine are progressing positively. The group has also raised the potential value of its West Musgrave deposit.

## Rio Tinto (+12.3%)

The stock price of Australia's largest iron ore exposure rallied following the strength of iron prices. Higher copper and aluminium prices are also beneficial for key base metal business units. The group remains well positioned to return strong cash flows to shareholders given a strong balance sheet. Following the Juukan Gorge controversies the company has appointed former CFO Jakob Stausholm as RIO CEO.

## Negative Contributors to Performance

Australian stocks underperforming included:

## A2 Milk (-17.2%)

The region's leading infant formula brand downgraded FY21 sales and earnings expectations. The group's export sales to China from Australia/NZ are recovering more slowly than expected following disruption to daigou resellers following the Victorian lockdown. As a results profits in this division are expected to be materially lower than the previous year given 2H20 also included positive benefits from pantry filling following the initial Covid-19 lockdowns around the world.

## QBE Insurance (-14.7%)

The share price of Australia's largest insurer was impacted by an unexpected downgrade to its 2020 profit results. The group continued to experience disappointing claims performance with additional reserves required in North America, larger catastrophe costs and a flow on to weaker crop insurance results. Covid-19 costs remain unchanged albeit the profile is more weighted to 2020 from 2021. Although a substantial loss has been incurred the group's capital position remains at the higher end of its targeted range and strong premium rate increases are continuing across the industry.

## Qantas (-9.9%)

The recovery in domestic airline travel has been disrupted by unexpected Covid-19 outbreaks in Sydney and Melbourne. Interstate border closures have had a significant near-term impact at a peak travel time for the year and are likely to impact travel confidence going forward until vaccines are rolled out across Australia. Escalation in Covid-19 infections globally and concerns on a more infectious virus strain in the UK has also impacted confidence in restarting international travel later in 2021.

**Current Asset Allocation**

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

**Outlook**

The multi asset class public markets portfolio enters 2021 neutral bonds and overweight equities. Taking a 3-6 month view, we expect equities to deliver a positive total return, given our expectation of a continued economic and earnings recovery. That said, markets have run hard so some short term retracement wouldn't be surprising. We are overweight emerging markets. Robust growth and improving earnings in Asia, especially in heavyweight China, should support further outperformance. But as always there are risks. The pandemic demonstrated that nature continues to provide uncontrollable surprises. Second, the vaccines being rolled out are proven to work but science is imprecise, and so is economics. Third, financial markets will continue to surprise. Not many in the industry predicted that 2020 would see a destructive pandemic accompanied by a spectacular rally. Finally, politics can and will change how the pandemic and other challenges are dealt with. That said, we are optimistic, humanity has risen to the challenge. On the evidence we have, the vaccines will work driving a return to normality over time.

**Data Sources**
Credit Suisse, unless otherwise specified.

**Disclaimer**
The information and opinion expressed in this report were produced by Credit Suisse as of the date of writing and are subject to change without notice. The report is published solely for information purposes and does not constitute an offer or an invitation by, or on behalf of, Credit Suisse to buy or sell any securities or related financial instruments or to participate in any particular trading strategy in any jurisdiction. Information pertaining to price, weighting, etc. of particular securities is subject to change at any time. While Credit Suisse has made every effort to ensure that the information contained in this document is correct as at the time of publication, Credit Suisse can make no representation or warranty (including liability to third parties) either expressly or by implication as to the accuracy, reliability or completeness of the said information. Credit Suisse shall not be liable under any circumstances for any direct, indirect, contingent, special or consequential loss or damage suffered as a result of the use of or reliance on this information or in connection therewith or by reason of the risks inherent in financial markets. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to individual circumstances, or otherwise constitute a personal recommendation to any specific investor. Any reference to past performance is not indicative of future results. Credit Suisse recommends that investors independently assess, with a professional financial advisor, the specific financial risks as well as legal, credit, tax and accounting consequences. The attached report is distributed in Australia by Credit Suisse AG, Sydney Branch ("Credit Suisse") (ABN 17 061 700 712 AFSL 226896), Credit Suisse does not guarantee the performance of, nor makes any assurances with respect to the performance of any financial product referred herein.

Neither this document nor any copy thereof may be sent to or taken into the United States or distributed in the United States or to a US person. In certain other jurisdictions, the distribution may be restricted by local law or regulation. The entire content of this document is subject to copyright (all rights reserved). This report may not be reproduced, referred to, transmitted (electronically or otherwise), altered or used for public or commercial purposes, either in whole, or in part, without the written permission of CREDIT SUISSE.

CREDIT SUISSE

**CREDIT SUISSE AG**

**Private Banking Australia**

1 Macquarie Place
Sydney NSW 2000

**credit-suisse.com/au**

© 2021, CREDIT SUISSE AG ABN 17 061 700 712 AFSL 226896

# APNIC Monthly Reporting



## Summary

- Global equities ex-Australia ended down 0.4% on the back of reinvigorated virus concerns and fears that better than expected economic data could lead to a pullback in fiscal and monetary stimulus.

- Australian equities rallied 0.3%.

- Bond markets retreated as a continuation of the reflation theme saw yield curves steepen.

## Market Commentary

Global equities were a mixed bag in January. Most markets entered 2020 strongly, but developed markets failed to sustain this momentum throughout the month as reinvigorated virus concerns and signs of reflationary pressures dampened risk appetite. Unusual and targeted trading activity further contributed to market volatility in the US. In AUD terms, Emerging markets and Australia equities ended the month positive with returns of 3.7% and 0.3%, respectively, while US and European equities retreated 0.3% and 0.8%, respectively. In bond markets, the reflation theme was a drag on global bond prices as yield curves steepened.

The Australian economic recovery is progressing better than expected. The labour market added 50k jobs to the economy in December, which helped bring the unemployment rate down to 6.6%. National house prices jumped 0.7% in January, supported by record low interest rates. Retail sales contracted 4.2% in December but the annual growth was a strong 9.4%. The easing of restrictions in several states including Victoria, Queensland and Western Australia should contribute further positive momentum to sales growth going forward. Headline inflation for 4Q20 surprised to the upside at 0.9% QoQ but the RBA was quick to reaffirm that this would not trigger an early end to monetary support. In fact, the central bank kept the cash rate target at 0.1% and announced the extension of its bond-buying program by another 100bn at its February meeting.

US data signalled continued economic recovery, albeit at a slower pace. A preliminary estimate of GDP by the Commerce Department expects economic growth to moderate to an annualised rate of 4% in 4Q20 with weak consumer spending expected to be a key contributor to the slowdown.

The labour market improved in January but not as much as the market had originally anticipated with downward revisions to November and December employment numbers while January added 49k new jobs rather than the anticipated 50k. That said, in a case of good news is bad news, the softer labour report improves fiscal stimulus prospects for President Biden to pass a USD 1.9 trn COVID-19 relief package.

The latest economic data showed the Eurozone contracted 0.7% in 4Q20, providing insight into the impact from the COVID-19 pandemic on the region after more countries entered into stricter quarantine measures or lockdowns in recent months. The January Markit PMI survey data was no more inspiring. Although it showed a recovery in the manufacturing sector, this was more than offset by a deteriorating services sector as the region struggled to contain the virus and vaccination progress remains slow. The net effect saw the Markit Composite PMI fall deeper into contractionary territory with a reading of 47.5, down from 49.1 in the prior month. The unemployment rate saw no improvement in December, holding resolutely to the same level as November at 8.3% and the Sentix Index indicated sentiment taking a leg down with a negative reading in February.

China was the only major economy to record an expansion in 2020 with GDP growing a surprising 6.5% in 4Q20. Although the January purchasing managers' indices showed a subsequent moderation in both the manufacturing and services sectors, both the official manufacturing and non-manufacturing PMIs still printed at mildly expansionary levels of 51.3 and 52.4, respectively. Furthermore, the slowdown could be quite temporary in nature given it coincided with a resurgence of COVID-19 cases in some parts of the country and given the government's previous success at virus control measures.

In the local market, the top performing sectors were Consumer Discretionary (+4.66%), Communication (+2.7%) and Financials (+2.2%) while Real Estate (-4.39%), Industrials (-2.99%) and Healthcare (-1.85%) were the worst performers.

## Market Value as at 31 January 2021

| | Market Value |
|---|---|
| APNIC Portfolio | A$30,937,562 |

## Performance as of 31 Januray 2021

| | APNIC Portfolio | | | |
|---|---|---|---|---|
| | Portfolio | Benchmark | Relative | CPI + 2.5% |
| Month | -0.39% | -0.28% | -0.11% | 0.28% |
| 3 Months | 3.14% | 3.32% | -0.18% | 0.84% |
| Year To Date | -0.39% | -0.28% | -0.11% | 0.28% |
| 1 Year | 1.22% | 2.29% | -1.07% | 3.09% |
| 3 Years pa | 5.87% | 6.01% | -0.13% | 3.93% |
| Since Inception pa | 5.44% | 5.70% | -0.26% | 4.24% |

* Performance is after fees but before franking

## Positive Contributors to Performance

Australian stocks performing well included:

### Westpac (+9.1%)
The share price of Australia's second largest bank experienced a catch up rally having lagged its peers in recent months. The stronger than expected domestic economic recovery and improvement in the housing market is expected to flow into lower charges for bad debts and an improved capital position. Management are also making progress in improving weaknesses in operational risk management and culture. Divestment of approximately $4bn in non-core assets should also facilitate tax efficient returns to shareholders given significant build of excess franking credits.

### Wesfarmers (+8.4%)
Investor confidence in Australia's largest discretionary retail group improved given strong consumer spending on retail goods. A pickup in the housing sector should also provide tailwinds to the group's Bunnings hardware business. The company remains in a strong financial position and has a good track record in paying out excess cash flows to shareholders in the most tax efficient manner.

### Woodside Petroleum (+7.6%)
Australia's leading LNG exporter experienced a share price rally as its core energy markets showed signs of improvement driven by better demand from Asia. Spot LNG prices achieved record levels given combination of a cold winter in the Asian region and short-term supply disruption, enabling the company to achieve higher price realisation for non-contracted volume. Higher oil prices are also feeding into higher contract LNG prices while signs of an improved structural LNG supply demand balance improves prospects for commencing its development projects..

## Negative Contributors to Performance

Australian stocks underperforming included:

### Fight Centre (-11.2%)
Concerns on vaccine effectiveness to new strains of Covid-19 and disruption from border closures impacted confidence in demand recovery for the region's leading travel agency. Although vaccine concerns have increased it seems early rollouts are achieving good results while improvements to approved vaccines are expected. The company has a successful hibernation strategy and is well positioned for a pickup in travel demand as vaccine rollouts progress.

### Magellan Financial (-10.7%)
The share price of Australia's leading global fund manager declined due to recent underperformance of the group's more defensive portfolio relative to strong global equity markets. Fund inflows have reduced as a result although they remain positive, leading to slower growth in funds under management and reduced performance fees. The group's investment performance is in line with client expectations under current market themes such as strong rotation to value. We therefore expect ongoing investor support with a pickup in fund inflows given management's fund raising initiatives in 2021.

## Alumina (-7.6%)

The share price of Australia's leading alumina and bauxite exposure weakened following Alcoa's earnings report on the AWAC joint venture where Alumina has a 40% equity interest. Although AWAC results were ahead of expectations reflecting stronger aluminium demand, Alcoa highlighted a softer near-term outlook due to higher input costs and the rise in the Australian dollar. Operating cash flow was also weaker than expected leading to lower joint venture distributions to Alumina. Notwithstanding these issues in the short-term, aluminium and alumina demand continue to strengthen in line with the global economic recovery.

## Current Asset Allocation

| Asset Class | Tactical Position |
| --- | --- |
| Cash | Underweight |
| Bonds | Underweight |
| Australian Equities | Overweight |
| International Equities | Overweight |
| Alternative Investments | Underweight |

## Significant Portfolio Changes

| Position | Comments |
| --- | --- |
| Alumina | Increased: Core markets improving, overreaction to Alcoa result. |
| AXA World Funds – Global Inflation Linked Bonds / Perpetual Active Fixed Interest Fund / PIMCO Global Investment Grade Credit Fund | Increased / Increased / Decreased: Bringing inflation linked bond exposure from underweight to neutral. Funded by neutralising investment grade bond exposure. |
| CSL | Decreased: Near-term headwinds from supply disruption and rising AUD. |
| ETFS Physical Gold | Decreased: Reducing size of out of benchmark gold position. |
| Fortescue Metals | Decreased: Iron ore price peaking near-term, strong performance factored in. |
| iShares Core FTSE 100 UCITS ETF | Bought: Adding tactical position to UK equities to align with global investment committee outperform call. |

## Outlook

Within equities we favour emerging markets and Australian shares. The Global Investment Committee (GIC) is overweight global equities, and favours specific Chinese exposure, as implemented in the portfolio. Australian equities are benefitting from an outsized exposure to cyclical sectors mining and banking, which the GIC identifies as offering upside in the expected economic upswing.

Equities are favoured over bonds due to: 1) Covid-19 inspired fiscal stimulus and aggressive central bank action; 2) the Biden victory which should see stimulus spending but delayed tax rises if any; 3) Vaccine roll outs around the world, and; 4) expansionary economic data in China, the US and other major economies.

Markets have started to react to the possibility of inflation. Higher bond yields could lead to a sell off in equities. We don't see inflation surprising to the upside in a meaningful way. Some of the factors driving prices are transitory such as a shortage of computer chips and shipping containers. There also remains an output gap with underemployment, and while PMI's are in expansion zone, the absolute level of the data points to spare industrial capacity. Certainly, central banks are giving no indication of a change to their monetary stimulus policies.

Of course, we need to monitor inflation as it can move quickly, but for now we don't see it derailing equity markets.

**Data Sources**
Credit Suisse, unless otherwise specified.

**Disclaimer**
The information and opinion expressed in this report were produced by Credit Suisse as of the date of writing and are subject to change without notice. The report is published solely for information purposes and does not constitute an offer or an invitation by, or on behalf of, Credit Suisse to buy or sell any securities or related financial instruments or to participate in any particular trading strategy in any jurisdiction. Information pertaining to price, weighting, etc. of particular securities is subject to change at any time. While Credit Suisse has made every effort to ensure that the information contained in this document is correct as at the time of publication, Credit Suisse can make no representation or warranty (including liability to third parties) either expressly or by implication as to the accuracy, reliability or completeness of the said information. Credit Suisse shall not be liable under any circumstances for any direct, indirect, contingent, special or consequential loss or damage suffered as a result of the use of or reliance on this information or in connection therewith or by reason of the risks inherent in financial markets. Nothing in this report constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to individual circumstances, or otherwise constitute a personal recommendation to any specific investor. Any reference to past performance is not indicative of future results. Credit Suisse recommends that investors independently assess, with a professional financial advisor, the specific financial risks as well as legal, credit, tax and accounting consequences. The attached report is distributed in Australia by Credit Suisse AG, Sydney Branch ("Credit Suisse") (ABN 17 061 700 712 AFSL 226896), Credit Suisse does not guarantee the performance of, nor makes any assurances with respect to the performance of any financial product referred herein.

Neither this document nor any copy thereof may be sent to or taken into the United States or distributed in the United States or to a US person. In certain other jurisdictions, the distribution may be restricted by local law or regulation. The entire content of this document is subject to copyright (all rights reserved). This report may not be reproduced, referred to, transmitted (electronically or otherwise), altered or used for public or commercial purposes, either in whole, or in part, without the written permission of CREDIT SUISSE.

CREDIT SUISSE

**CREDIT SUISSE AG**

**Private Banking Australia**

1 Macquarie Place
Sydney NSW 2000

**credit-suisse.com/au**

© 2021, CREDIT SUISSE AG ABN 17 061 700 712 AFSL 226896

# Agenda Item 9
# Secretariat report

# APNIC Secretariat Report

EC meeting

22 February 2021

Online

# Strategic Plan



**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.

**STRATEGIC PILLARS**

1 MEMBERSHIP

2 REGISTRY

3 DEVELOPMENT

4 INFORMATION

5 CAPABILITY

**VALUES** — Passion – Trust – Curiosity – Accountability – Inclusion

**CREDO** — **WE ARE APNIC**

**MEMBERSHIP**
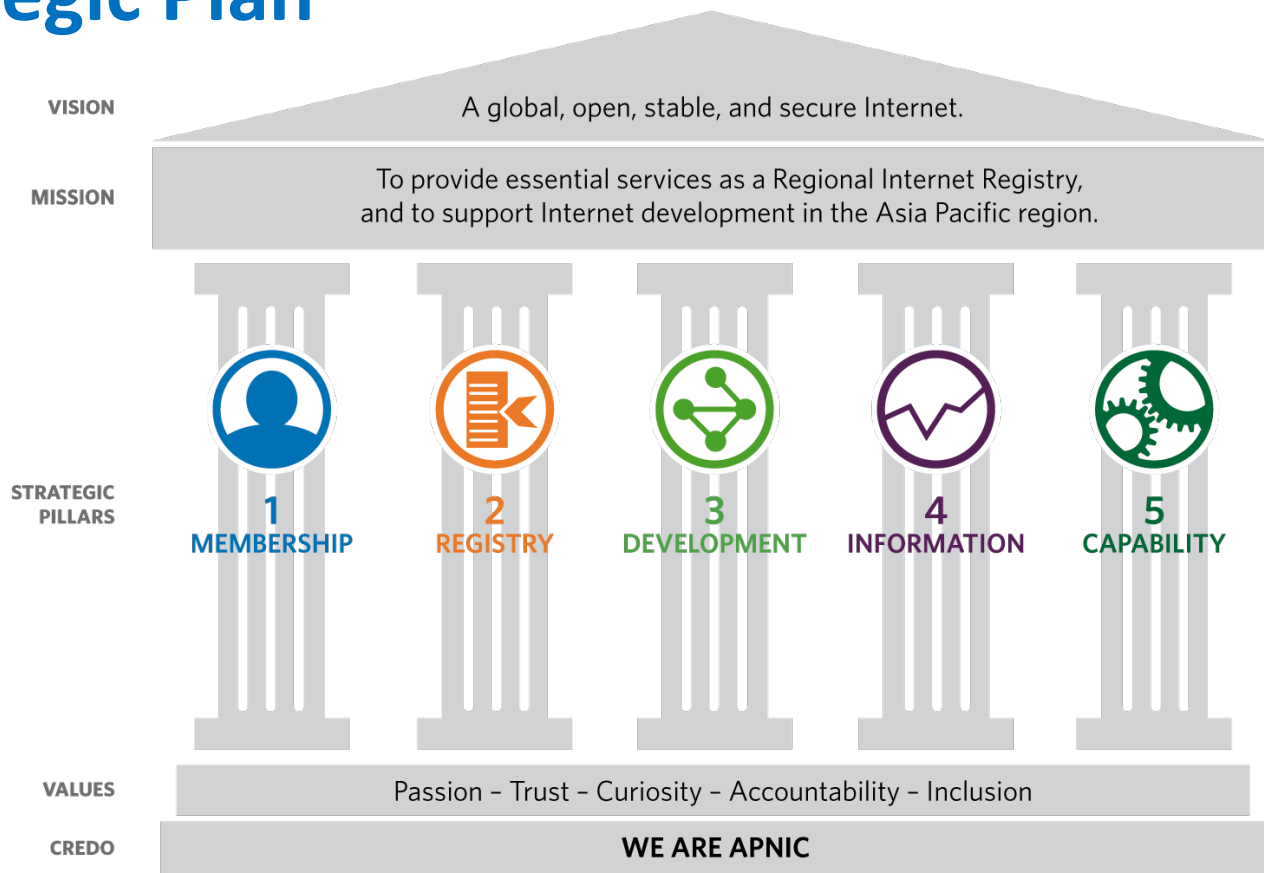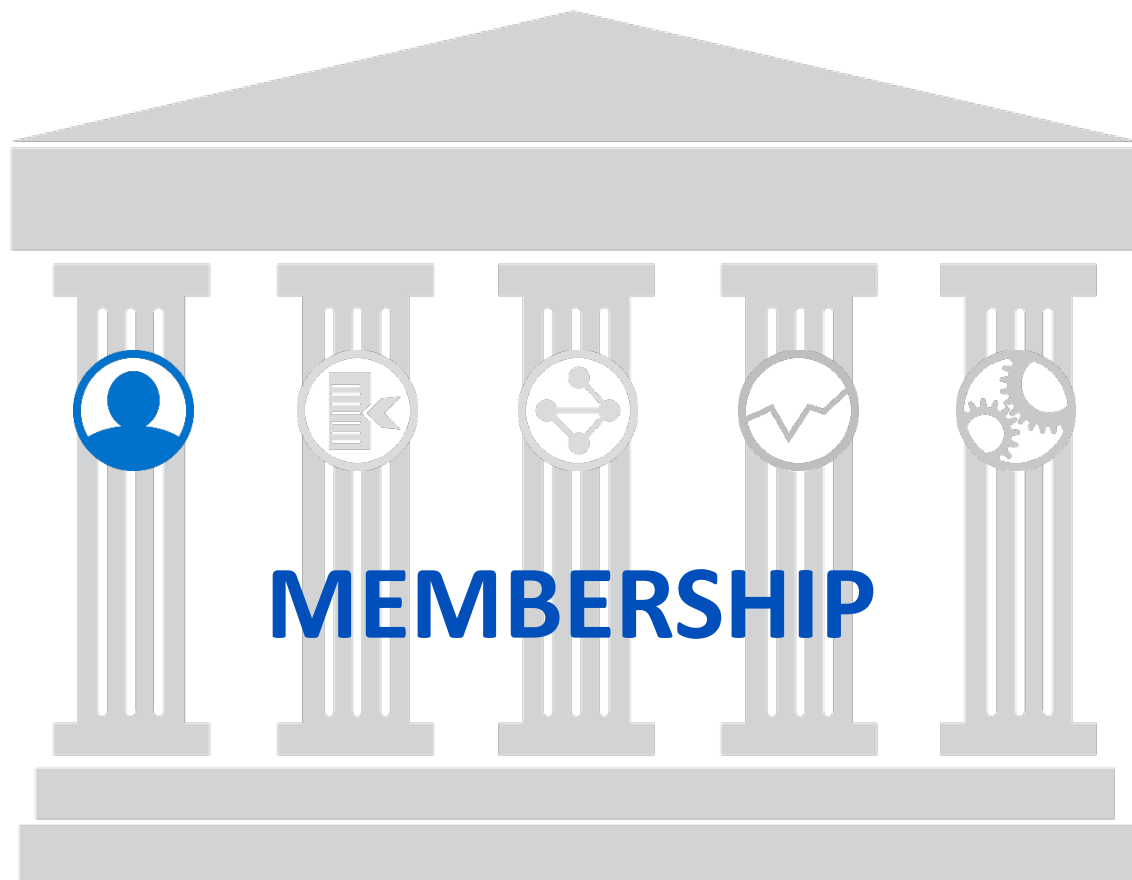
# Member Services

- Total APNIC Members 8,341
  - plus 9,972 NIR members = 18,313

- Service satisfaction 92.3% 'excellent' and 'above average'

- 99%+ SLA response time on Helpdesk queries

- Fraud cases remained low, average 2.3 per month

Stacked bar chart showing Members (blue) and NIR Members (orange) from 1998 to 2020, rising from near 0 to over 18000.
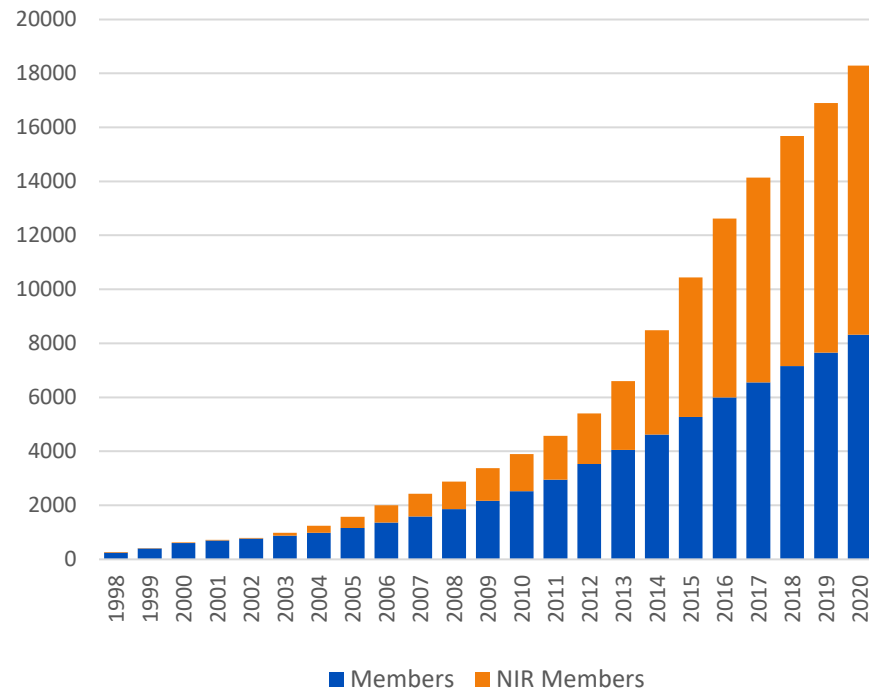
# APNIC Survey

- April: 41 interviews with APNIC Members and stakeholders across 24 economies

- July: Survey conducted in 16 languages
  - 1,624 valid responses (⇧ 31% on 2018)
  - 35% completed survey in language other than English
  - Final results reported at APNIC 50

- Full report: apnic.net/survey



**MEMBER SATISFACTION**



Neutral · Above average · Good · Excellent

**RESPONSE FIGURES**



1,624 responses received

73% of responses from APNIC Members or Account Holders

35% of responses in language other than English

4% Non-APNIC regions
16% East Asia
35% South Asia
96% of responses from the Asia Pacific economies served by APNIC
18% Oceania
27% South East Asia

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Maintain helpdesk SLA of 48-hour business day response to enquiries** | 99% SLA | 🟢 |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback, and less than 5% "poor and below average" feedback.** | 92.3% excellent and above average<br>4.5% poor and below average | 🟢 |
| **Total number of Members at end of 2020 to match or exceed the 2020 budget assumption of 8,262** | 8,341 Members | 🟢 |
| **Member outreach activities in 90% of economies with APNIC Members** | 90% economies covered | 🟢 |
| **Baseline measurement of membership data currency and accuracy established** | Completed | 🟢 |
| **Successful completion of the APNIC Survey 2020, with at least 10% more respondents** | Completed | 🟢 |
| **APNIC Survey follow-up actions monitoring page updated** | Completed | 🟢 |

# Membership Products



- New MyAPNIC dashboard

- MyAPNIC access via 'APNIC Login' SSO

- 'abuse-c' and 'Role' updates for IRT objects (prop-125)
  - New validation methods implemented following feedback

- Improved new membership form (70% decrease in fake applications)
  - Can now add trading name
  - Referral applications redesigned

- Transfer invoicing now fully automated

- New API to share Member data between internal applications

# Success Measures

| Targets | Results | Status |
|---|---|---|
| Creation of baseline metrics, segmentation and categorization of RT tickets | Completed | 🟢 |
| Identification and analysis of online features with high latency; issues solved where possible | Completed | 🟢 |
| Create a baseline measurement of "mean time to deploy" | Completed | 🟢 |

# Investments

## Online community platform

- Platform for improved online participation
- Target communities identified
- Help Centre prototype developed

## Election system

- BigPulse implemented
- 2020 EC Election: 13,063 total votes received (highest on record)
- Voting, proxy appointment successfully completed online by 913 Members
- Used for NRO NC elections at APNIC 50
- Work began on adding support for SIG Chair elections

# Member Reporting — Success Measures

| Targets | Results | Status |
|---|---|---|
| **On-time publishing of required reports at the APNIC AGM and at APNIC 50** | Completed | 🟢 |
| **Publishing of EC Minutes within two months of each EC meeting** | Completed | 🟢 |
| **Event Wraps published for 100% of reportable events within one month of event** | 65/67 published within one month | 🔴 |

**REGISTRY**

# Resource Delegations
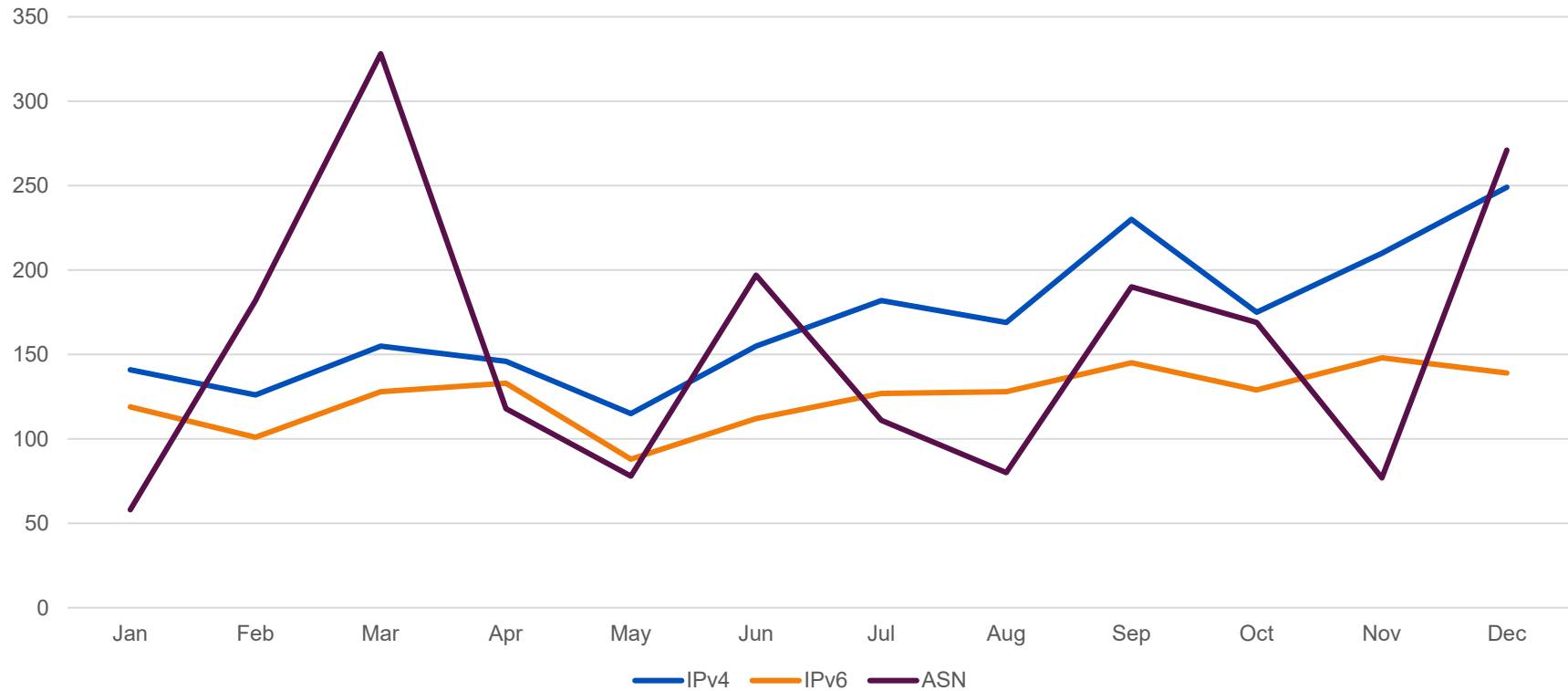


To 31 Dec 2020

# Resource Delegations
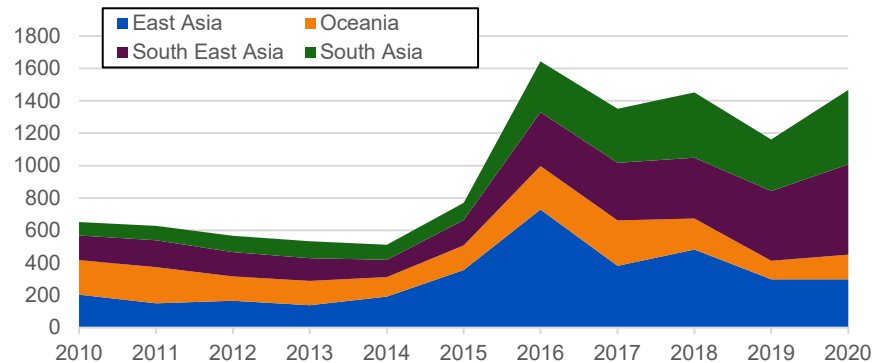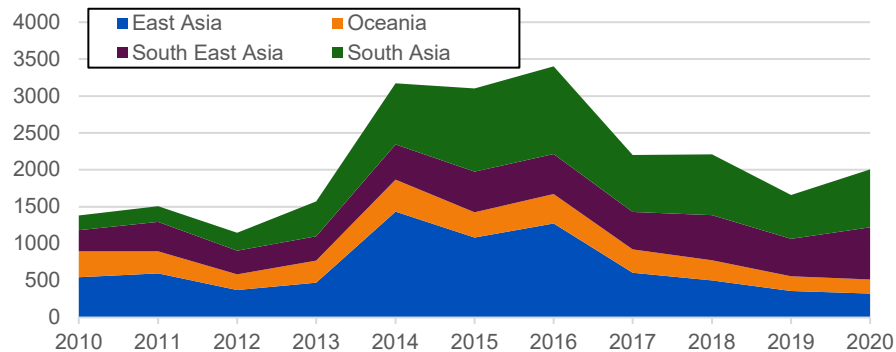


IPv4
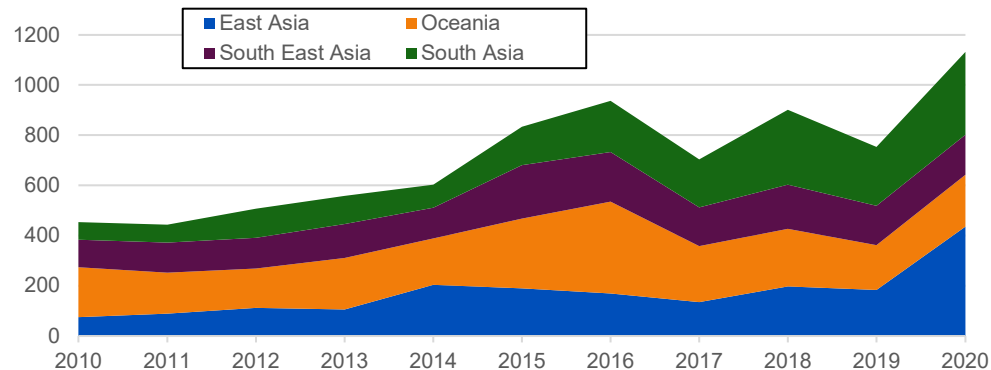


IPv6



ASNs

To 31 Dec 2020

APNIC

# IPv4 Pool Status



To 31 Dec 2020

APNIC

# M&A and Historical Transfers



M&A transfer size (/24s)     M&A transfer count
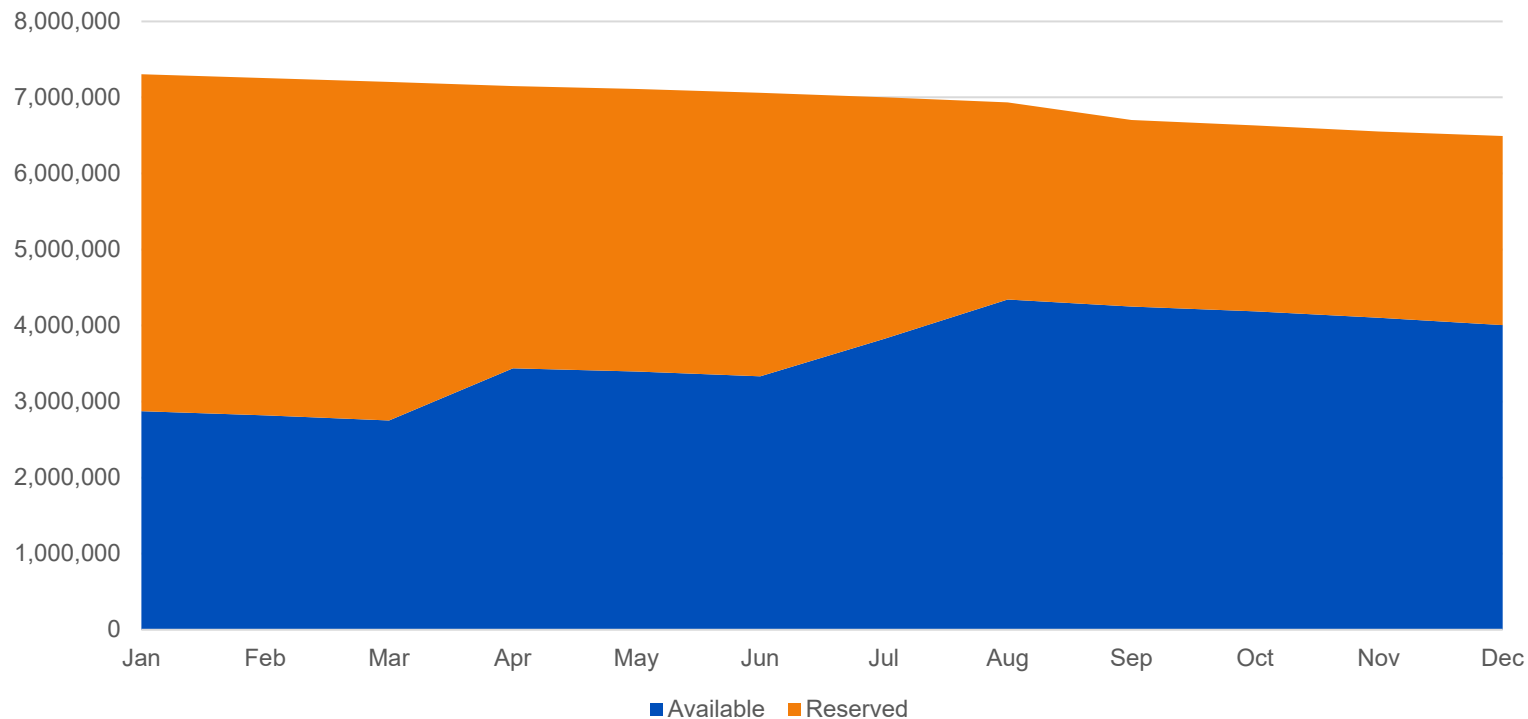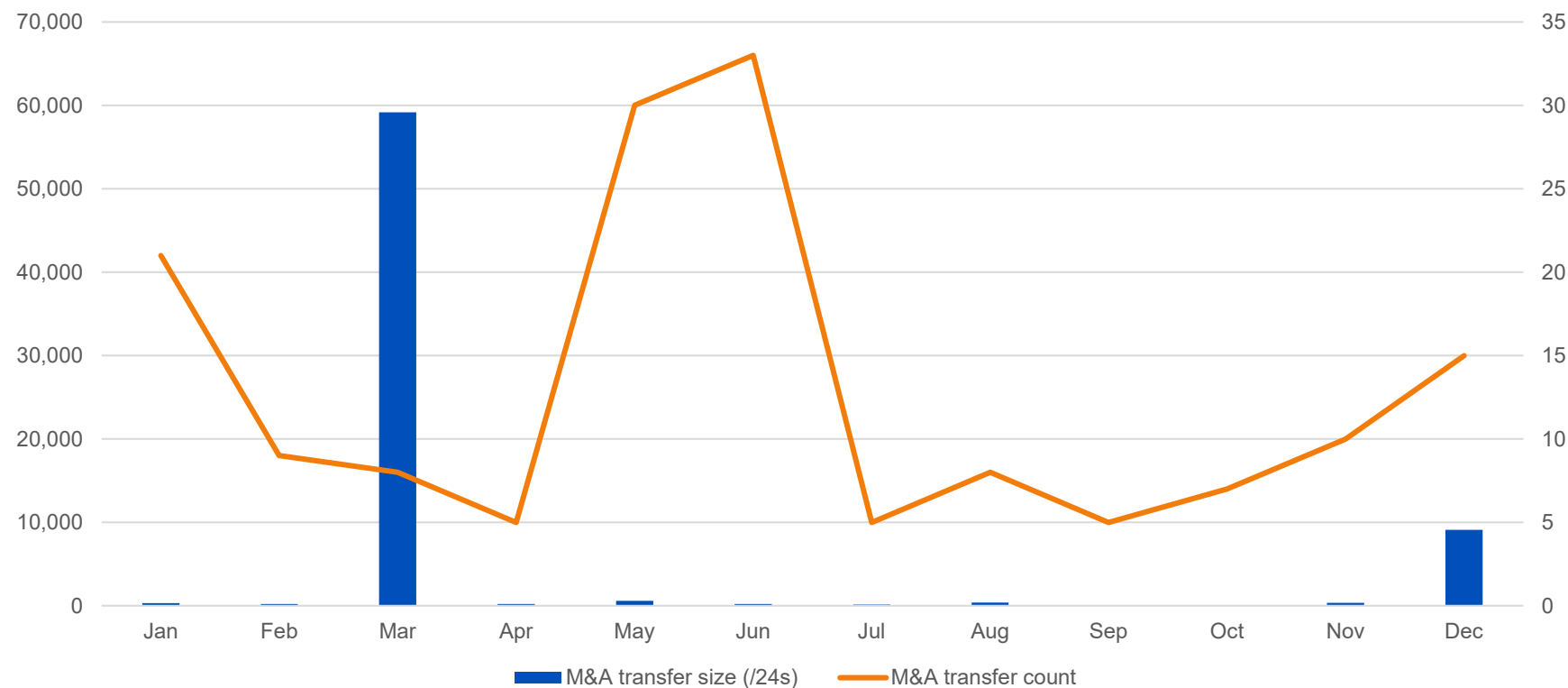
To 31 Dec 2020

# IPv4 Market Transfers (within region)



To 31 Dec 2020

APNIC

16

# IPv4 Market Transfers (Inter-RIR)



Legend: Inter-RIR market transfer size (/24s); Inter-RIR market transfer count

To 31 Dec 2020

APNIC
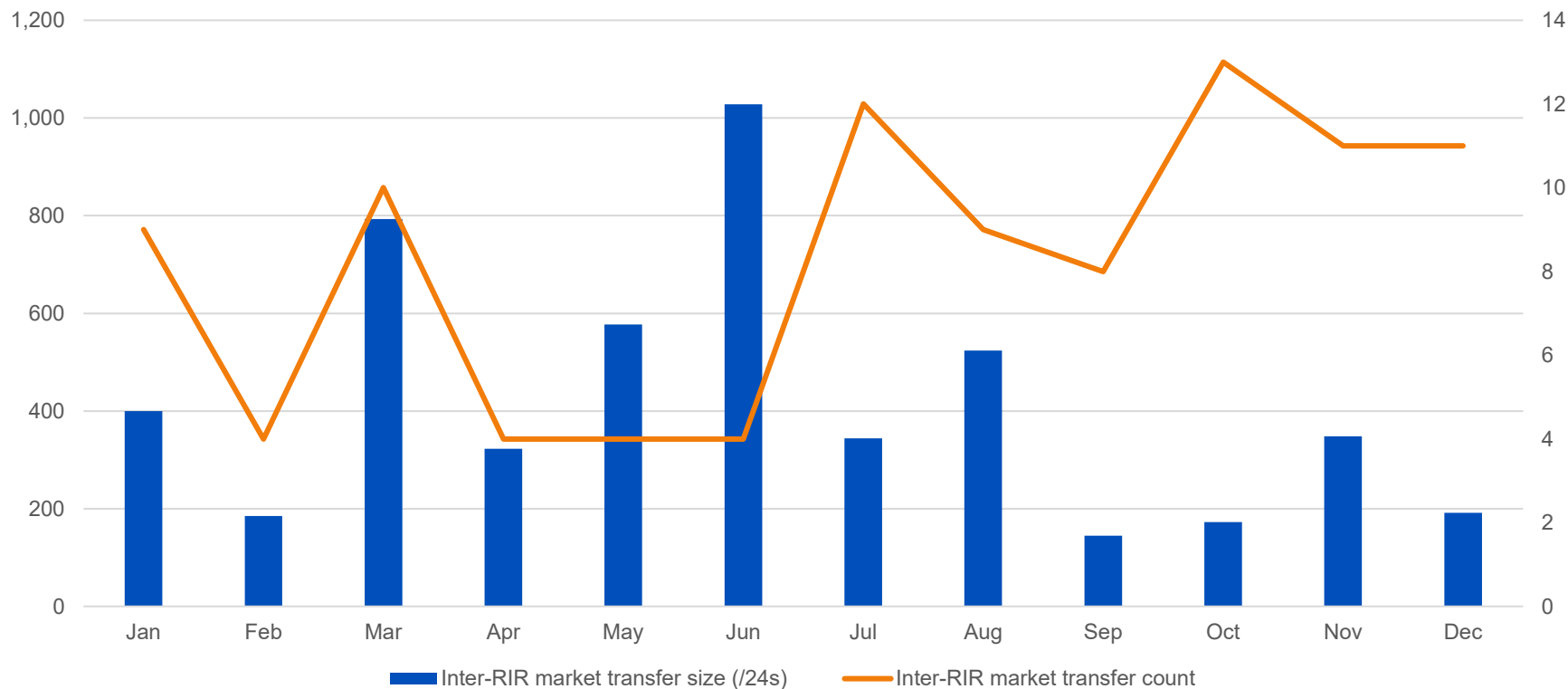
# Registration Services

- Resource Quality Check
  - New feature of NetOX
  - 960 unique resources queried

- Registry accuracy
  - Org object creation (500 Members)
  - Correction of NIR transfer records
  - Validation of IRT email every six months (prop-125)

- Reclaiming unused IPv4 addresses
  - 1.1M historical IPv4 addresses voluntarily returned to available pool
  - New listing service for Members

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Maintain Helpdesk SLA of 48-hour business day response to enquiries** | 99% SLA | 🟢 |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback and less than 5% "poor and below average" feedback** | 92.3% excellent and above average<br>4.5% poor and below average | 🟢 |
| **Percentage of Members holding IPv6 address space increased to 65%** | 66.32% | 🟢 |
| **Measurement system for APNIC RQC service implemented** | Completed | 🟢 |
| **A method to measure whois contact accuracy and currency established** | Completed | 🟢 |
| **Attempt contact with all (2,800+) identified resource holders with potentially unused IPv4 addresses, to offer options for return or transfer of resources** | Completed | 🟢 |

# Registry Products

- Registry system updated to return terminated addresses to free pool; correction of historical resource records; and IPv4 address transfer restrictions in 103/8 (prop-116)

- Assisted VNNIC with new registry system deployment

- Google cloud-based APNIC RDAP service deployed

- RPKI CPS (Certification Practice Statement) review with RIPE NCC

- Adopted Cloudflare 'Spectrum' and Google Cloud for delivery of RRDP and RSYNC service in AS0

- Five product development meetings with NIRs and 13 UX user interviews held at APRICOT 2020

# Success Measures

| Targets | Results | Status |
|---|:---:|:---:|
| **Successful implementation of pool service changes for historical record amendment** | Completed | 🟢 |
| **Seven product development engagements at APNIC conferences** | 16 engagements completed | 🟢 |
| **RDAP service deployed to the cloud in two regions** | Deployed to three regions | 🟢 |
| **Fifteen user experience interviews for registry products and APRICOT and IETF meetings** | 13 UX interviews completed | 🔴 |
| **RPKI Certification Practice Statement review completed** | 2021 scheduled completion | 🔴 |

APNIC

# Investments

| RPKI AS0 ROA | <ul><li>Public testbed deployed for APNIC 49</li><li>Production deployment for APNIC 50</li></ul> |
| --- | --- |
| Additional Investments | <ul><li>Funding to OpenBSD for RDAP</li><li>Support for 'Krill' and 'Routinator' development</li><li>Support for NLNET to implement RTA</li></ul> |

# Policy Development

| Discussed at APNIC 49 | Status |
|---|---|
| prop-130: Modification of transfer policies | No consensus, sent back to mailing list; discussion deferred at request of proposals' author |
| prop-133: Clarification on sub-assignments | No consensus, sent back to mailing list; discussion deferred at request of proposals' author |
| prop-134: PDP update | No consensus, withdrawn. |

- No new policy proposals at APNIC 50 – proposals under discussion deferred to APNIC 51
- Policy implementation updates on prop-132 at APNIC 50 and prop-125 at APNIC 49 and 50



APNIC 49 Policy SIG

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Two Policy SIG meetings held** | Completed | 🟢 |
| **Delivery of two policy analysis presentations at SIG meetings** | Completed | 🟢 |
| **High satisfaction rating from Policy Chairs in annual review of policy support** | 5/5 star rating | 🟢 |
| **Meeting agreed implementation timelines 100% of the time** | Completed | 🟢 |
| **Publishing of a 'policy proposals analysis' before each Policy SIG meeting** | Completed | 🟢 |
| **Achieve a service quality rating of 5.75 or above for Policy Development in the APNIC Survey** | Rating of 5.98 | 🟢 |

# Investments

| Policy documentation review | • Review completed and findings presented at APNIC 50 OPM<br>• Additional two-hour community consultation held October; editorial review launched in Dec<br>• Meeting of SIG Chairs in October to discuss SIG election changes |

**DEVELOPMENT**

# APNIC Conferences



| | |
|---|---:|
| On-site delegates | 563 |
| Economies | 60 |
| APNIC Members | 142 |
| Remote participants – Zoom | 185 |
| Remote participants – YouTube | 2,313 views; 29,190 minutes |
| #apricot2020 tweets | 827 from 277 users |

- Third Hackathon held with 13 participants

- RPKI Deployathon (with JPNIC) for 40 participants

- First Routing SIG meeting

- Internet community events:  FIRST TC, DotAsia AGM, APIX, AP* Retreat, MANRS meeting and ISOC Social

# APNIC Conferences



| | |
|---|---|
| Total number of remote attendees (Zoom) | 473 |
| Economies | 48 |
| APNIC Members | 120 |
| Remote participants – YouTube | 4,003 views; 43,567 minutes |
| #apnic50 tweets | 248 from 106 users |

- Fully online APNIC conference
  - New program structure and simpler conference registration form

- 473 Zoom attendees + 659 YouTube live views (total views 4,003)

- Conference participant satisfaction 93%

- Internet community events: APIX meeting, AP* Retreat, APNG Seminar; two FIRST security sessions

- NRO NC: Shubham Saran elected for two-year term; Nicole Chen appointed for one-year term

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Delivery of two conferences (in Oceania and South Asia)** | Completed | 🟢 |
| **Achieve attendance of 1,000 delegates** | 1,036 attendees | 🟢 |
| **Achieve 4,000 remote conference session views** | 6,974 views | 🟢 |
| **Achieve a minimum average conference participant satisfaction survey rating of 90%** | 94.8% | 🟢 |
| **Achieve a service quality rating of 6.0 or above for APNIC Conferences in the APNIC Survey** | 6.33 | 🟢 |

# Investments

| Fellowships | • No travel fellowships for APNIC 50. Fellowships will resume in 2021 |

# Foundation Support - Investments

**Foundation support**

- APNIC staff support for finance, HR and communications
- Project budget supported additional administrative positions
- Independent financial audit
- Support for APIDT creation

**ISIF Asia**

- 2020 Network Operations Research Grants opened 2 April
- Expanded funding to USD 120K for four selected grants

# Community Engagement

## Total Counts by Engagement Type



Total: 273

Legend:
- APNIC (yellow)
- CERT Engagement (dark navy)
- Coordination (light orange/tan)
- Development (orange)
- Foundation Engagement (light grey)
- Foundation Projects (grey)
- Government (green)
- Internet Governance (light blue)
- Member Outreach (black)
- Membership Development (purple/blue)
- NOG (magenta)
- Other (dark purple)
- Security (red)
- Technical (salmon/coral)
- Technical Assistance (blue)
- Training (teal)

## Events vs Engagements by Month



| Month | Events | Engagements |
|---|---|---|
| January | 11 | 18 |
| February | 11 | 14 |
| March | 3 | 3 |
| April | 7 | 7 |
| May | 19 | 19 |
| June | 34 | 35 |
| July | 30 | 31 |
| August | 25 | 27 |
| September | 34 | 35 |
| October | 30 | 33 |
| November | 31 | 32 |
| December | 17 | 19 |

## Number of engagements by Subregion



| Subregion | Total |
|---|---|
| Eastern Asia | 32 |
| Global | 71 |
| Oceania | 49 |
| South Asia | 34 |
| South-eastern Asia | 51 |

100% online participation from March 2020

APNIC

# Technical Community Support

- APNIC supported formation of PNGNOG
  - PNGNOG v0.1 held 17 June

- Working with community to establish IXP in Maldives and re-establish IXP in Samoa

- Member of APAN 50 and 51 Technical Committee, supporting APAN's Security Working Group

- Sponsorship of PeeringDB, IXPDB, Peering Asia and APIX

# Technical Community Support

- APNIC supported the following NOGs with sponsorship (s), presentations (p), technical support (t) and program committee (c) contributions in 2020

|       | South Asia | South East Asia | East Asia | Oceania |
|-------|------------|-----------------|-----------|---------|
| Jan   | bdNOG (s) (p) (c), SANOG 35 (s) (p) (c) | MMIX/MMNOG (s) | JANOG 45 (s) (p) | NZNOG (p) |
| Feb   |            | PhNOG (s) (p0 (c) |          |          |
| July  |            | PhNOG Virtual 2020 (p) (c) (t) |          | PNGNOG v1.0(s) (p) (c) (t) PacNOG (p) (c) |
| Aug   | INNOG (s) (p) (c) | KHNOG (t) (p) | JANOG 46 (s) |          |
| Sept  |            | VNIXNOG (s) (p) | HKNOH (t) (p) (t) |          |
| Oct   | bdNOG (p) btNOG (s) (p) (t) |                 | mnNOG (p) |          |
| Dec   | LKNOG (p) (t) (c) |                 |          | PacNOG (p) (c) |

# Networking From Home

- Online events due to COVID-19 event cancellations

- 21 NOGs pledged support and staffed program committees

- Four events aligned to sub-regional time zones
  - South East Asia 2 Jun; South Asia 17 Jun; East Asia 15 Jul; Oceania 4 Aug

- 1,219 participants from 45 economies
  - Watched avg 1 hour 40 mins (67% of each 2.5-hour event)
  - 91% of participants from Asia Pacific

- Finalist for three communications awards
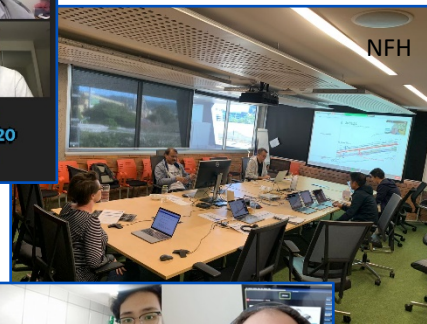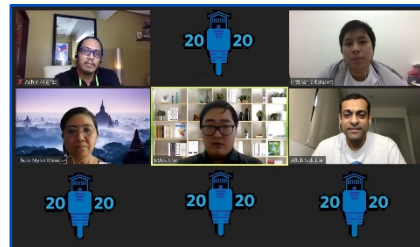
# Security Community Support

| Jan | Feb | April | May | June | July |
|---|---|---|---|---|---|
| LEARN (Sri Lanka) (p) | FIRST TC at APRICOT 2020 (Australia) (m) | Physical Information Security Seminar (Academy) (web) | Cyber Threat Intelligence Summit (m) | PacSON Introduction to Suricata (t) | PacSON Suricata signature writing (t) |
| Pakistan Telecom Authority (Pakistan) (w) | GFCE Pacific Regional Meeting (Australia) (p) | Webinar Cambodia Cyber Security Community (Secudemy) (web) | EU ATT&CK Workshop (p) | FIRST.org SIG (m) | UCENET and Interpol (p) |
| | Samoa IT Association (Samoa) (w), (p) | | MYREN (Malaysia) (t) | IX2020 Internet Security and Mitigation or Risk (p) | Incidence Response and Digital Forensics (w) |
| | Hong Kong Police Force (Hong Kong) (p) | | CERTs/CSIRTs (Indonesia) (p) | PITA Technical and Business Forum (p) | Security Monitoring and Elastic Stack (w) |
| | Cyber Pasifika program with AFP (Australia) (m) | | Elastic Stack (Solomon Islands) (t) | | |

(p): presentation; (w) workshop; (m) meeting; (t) tutorial; (web) webinar

# Security Community Support (cont'd)

| Aug | Sept | Oct | Nov | Dec |
|---|---|---|---|---|
| DNS Ecosystem Security, Reverse DNS for IPv4 and Ipv6, Email based Attacks and Mitigation (w) | Operation models for IXPs (w) | Routing Basics (w) | KrCERT/CC APISC Training 2020 (w) | BTCIRT Community Workshop (w) |
| Vulnerability Assessment and Penetration Testing  (t) | | ITU Global Cyberdrill 2020 (p) | Annual FIRST Conference | CNCERT International Partnership in Emergency Response Conference (p) |
| | | Cyber Safety Pasifika (p) | Digital Pacific Conference (p) | CSIRT.id Virtual Seminar (p) |
| | | | OIC-CERT Conference 2020 (p) | |
| | | | ITU Global CyberDrill 2020 (p) | |
| | | | Cyber Safety Pasifika (p) | |

(p): presentation; (w) workshop; (m) meeting; (t) tutorial; (web) webinar

# Internet Organization Cooperation

- NRO Activities
  - 38 coordination group calls (ECG, CCG, PACG, CFOs, Legal)
  - Hosted AFRINIC CEO Eddy Kayihura in Brisbane
  - Virtual three-day NRO EC retreat

- ICANN 67, 68, 69; IETF 107, 108, 109 (SIDROPS, REGEXT, DNSOP, ANRW, IABopen, GROW, JMAP, xBGP, INT AREA, OPSAWG/OPSAREA)

- LACNIC 33, 34; RIPE 80, 81; ARIN 45, 46

- I* (internetcollaboration) calls

- Crisis communications training for 10 AFRINIC staff

# Internet Governance and Govt Engagement

- Authored chapter "Putting the technical back into cyber (policy)" in Routledge Handbook of International Cybersecurity

- Pablo Hinojosa appointed member of ITCG committee to recommend representatives for IGF MAG

- Joyce Chen joined APNIC as Senior Advisor – Strategic Engagement

- Organised and presented sessions at APrIGF and IGF 2020. Participated in IGF MAG

- Presenting and sponsoring Schools of Internet Governance (SIG), including PKSIG, inSIG, BDSIG and APSIG.

- Also participated and supported TWIGF, NetHui, NetThing 2020

- Public consultation with Australian government on responsible state behavior in cyberspace

- AFP collaboration on LEA training for Cyber Safety Pasifika program

- Spoke at Australian government webinar on ITU OEWG and GGE processes

- Participated in various ITU, APT, APECTEL and GFCE engagements

# Success Measures

| Targets | Results | Status |
|---|---|---|
| Sponsor or participate in 30 technical community events including NOGs, Peering Forums and Research & Education community events | 34 events | 🟢 |
| Facilitate and support two new/revived NOGs | One new NOG | 🔴 |
| Sponsor or participate in 10 security community events | 23 events | 🟢 |
| Support targeted development of three new/existing CERTs/CSIRTs | 5 CERTs/CSIRTs | 🟢 |
| Ensure APNIC participation in each of the RIR meetings | Completed | 🟢 |
| Provide APrIGF sponsorship and participate in APrIGF and IGF with workshop proposals, MSG/MAG participation, and speaking roles | Completed | 🟢 |
| Participate in at least three national Internet governance initiatives | 7 engagements | 🟢 |
| Provide sponsorship/speaker support to at least two schools of Internet governance | 4 engagements | 🟢 |
| At least 12 engagements with governments and intergovernmental organizations, including capacity-building partnerships | 37 engagements | 🟢 |
| At least six engagements with the Public Safety community | 11 engagements | 🟢 |

# Community Participation

- 242 attendees and 391 remote participants in APNIC 49 SIG meetings; 396 at APNIC 50 (online) and 25 in PDP consultation

- New Routing SIG began at APNIC 49

- 3 'APNIC Academy Socials' on Facebook Live with 22,952 minutes viewed and 1,614 post engagements

- Encouraging newcomers
  - 687 new Academy users
  - 505 conference newcomers
  - 236 new Blog subscribers
  - 1,333 new Twitter followers
  - 1,125 new LinkedIn followers
  - 1,124 new people liked APNIC's Facebook page
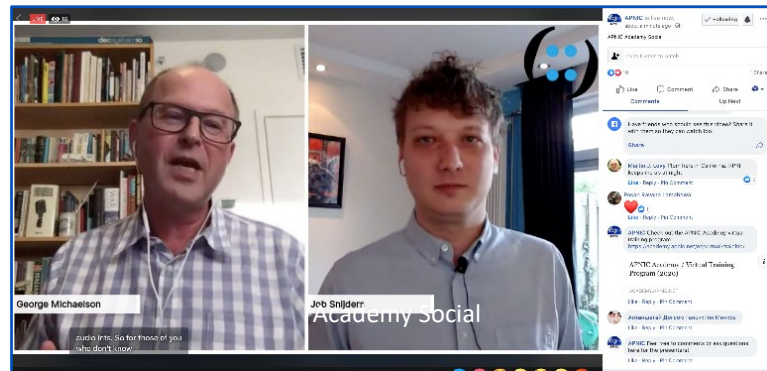
# Online Participation - Social Media

| | | 2019 monthly average | Jan | Feb | Mar | Apr | May |
|---|---|---|---|---|---|---|---|
| **Facebook** | Reach | 189,613 | 78,781 | 61,064 | 97,002 | 729,780 | 349,168 |
| | Likes | N/A | 29,307 | 29,487 | 29,583 | 29,686 | 29,861 |
| **Twitter** | Followers | N/A | 10,975 | 11,128 | 11,205 | 11,332 | 11,488 |
| | Engagement | 3,891 | 4,165 | 6,770 | 3,824 | 5,897 | 6,364 |
| **YouTube** | Views | 3,296 | 2,430 | 7,433 | 3,561 | 3,508 | 3,077 |
| | Hours | 375.21 | 256.68 | 1,037.04 | 354.79 | 308.71 | 311.12 |
| **Slideshare** | Views | 12,975 | 12,633 | 14,710 | 13,429 | 13,479 | 12,539 |
| **LinkedIn** | Reach | 4,131 | 7,734 | 11,488 | 15,803 | 7,997 | 6,552 |
| | Followers | N/A | 4,354 | 4,454 | 4,545 | 4,632 | 4,730 |

# Online Participation - Social Media

| | | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|
| **Facebook** | Reach | 208,839 | 172,445 | 54,496 | 673,685 | 299,754 | 216,334 | **3,386,566** |
| | Likes | 30,030 | 30,151 | 30,192 | 30,235 | 30,265 | 30,365 | **30,365** |
| **Twitter** | Followers | 11,738 | 11,870 | 11,964 | 12,070 | 12,163 | 12,215 | **12,215** |
| | Engagement | 5,212 | 5,564 | 5,078 | 4,767 | 4,981 | 3,703 | **63,749** |
| **YouTube** | Views | 2,612 | 2,493 | 7,662 | 2,386 | 2,170 | 2,087 | **43,198** |
| | Hours | 241.8 | 245.3 | 1,035 | 199.8 | 167.1 | 159.8 | **4,705.3** |
| **Slideshare** | Views | 11,610 | 10,882 | 13,770 | 15,421 | 13,997 | 12,809 | **157,398** |
| **LinkedIn** | Reach | 18,039 | 14,585 | 13,962 | 9,422 | 15,016 | 10,234 | **141,837** |
| | Followers | 4,930 | 5,017 | 5,149 | 5,225 | 5,335 | 5,411 | **5,411** |

# Online Participation – apnic.net
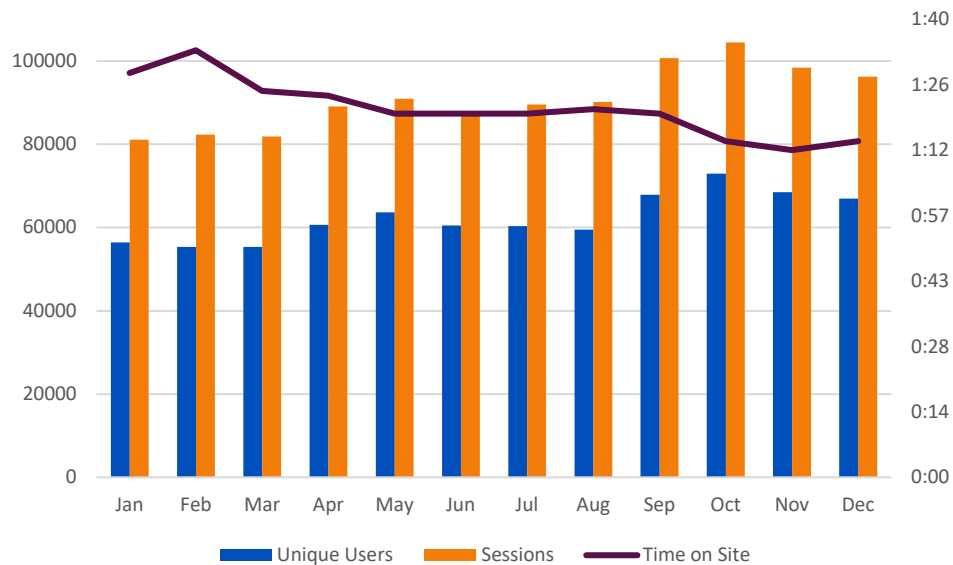


| | Total sessions | Unique users |
|---|---|---|
| India | 130,650 | 85,450 |
| United States | 126,801 | 101,080 |
| China | 104,630 | 64,459 |
| Australia | 74,052 | 18,427 |
| Hong Kong | 72,918 | 41,032 |
| Japan | 65,794 | 32,748 |
| Bangladesh | 65,582 | 46,788 |
| Indonesia | 38,978 | 22,508 |
| Philippines | 29,421 | 18.106 |
| Brazil | 23,541 | 14,271 |

Top 10 economies - apnic.net website visits

# Online Participation – apnic.net

| | Total sessions | Unique users | Pages per session | Time on site |
|---|---|---|---|---|
| January | 81,052 | 56,436 | 1.78 | 1:29 |
| February | 82,294 | 55,357 | 1.76 | 1:34 |
| March | 81,861 | 55,306 | 1.72 | 1:25 |
| April | 89,096 | 60,609 | 1.70 | 1:24 |
| May | 90,925 | 63,678 | 1.69 | 1:20 |
| June | 87,433 | 60,465 | 1.71 | 1.20 |
| July | 89,502 | 60,351 | 1.73 | 1.20 |
| August | 90,159 | 59,479 | 1.80 | 1:21 |
| September | 100,702 | 67,881 | 1.78 | 1:20 |
| October | 104,433 | 72,939 | 1.75 | 1:14 |
| November | 98,341 | 68,497 | 1.71 | 1.12 |
| December | 96,194 | 66,957 | 1.71 | 1.14 |
| **Total** | **1,091,992** | **710,955** | **1.74** | **1:21** |

26% of visitors used a mobile device to access apnic.net

apnic.net website visits

APNIC

45

# Success Measures

| Targets | Results | Status |
|---|---:|:---:|
| **Attract 300 in-person participants at SIG sessions** | 242 participants | 🔴 |
| **Achieve 800 online SIG participants** | 812 participants | 🟢 |
| **Reach 1,250 subscribers to SIG mailing lists** | 1,268 subscribers | 🟢 |
| **Reach 2.4 million blog views (all time)** | 2,638,935 views | 🟢 |
| **Achieve 4,000 remote conference session views** | 6,974 views | 🟢 |
| **Achieve attendance of 1,000 conference delegates** | 1,036 attendees | 🟢 |
| **Reach 11,900 Twitter followers** | 12,215 followers | 🟢 |
| **Achieve Facebook reach of 2 million** | 3,386,566 reach | 🟢 |
| **Attract 350 newcomers to APNIC conferences** | 505 newcomers | 🟢 |
| **Attract 75 new blog email subscribers** | 236 new subscribers | 🟢 |

APNIC

# Investments

| Community diversity | • New 'Community Demographics' page published on website<br>• Review of translation opportunities completed |

# APNIC Academy

- Online Training Program due to COVID-19 travel restrictions
  - 46 live courses for 2,434 participants
  - 18 webinars for 2,548 participants

- 19 Community Trainer contracts renewed; five new CTs from Fiji, Indonesia, India and Nepal

- New courses: Network Management and Monitoring and Network Automation; Routing Basics course updated

- Six new virtual labs developed + 3 instructor labs

- New course catalogue and learning pathways guide

- TA support for 12 Members on IXP operations, IPv6 and routing security
  - Academy platform TA feature in development

# APNIC Academy
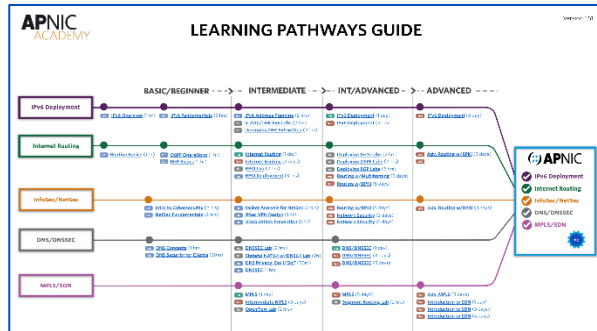
| | Face-to-Face | Live Online | Academy |
|---|---|---|---|
| **Courses** | 10 | 46 | 7 |
| **Training days** | 25 | 67 | 2,519 certs<br>2,817 hours |
| **Students** | 244 | 2,434 | 8,216 active<br>11,610 total |
| **Student days** | 658 | 1,915 | |
| **Locations** | 7 cities/6 economies | | 41 economies |
| **Virtual Labs** | | | 4,946 labs<br>4,974 hours |
| **Webinars** | | | 18 webinars<br>2,548 attendees |
| **YouTube Training Channel** | | | 25,482 views<br>399 new subscribers |
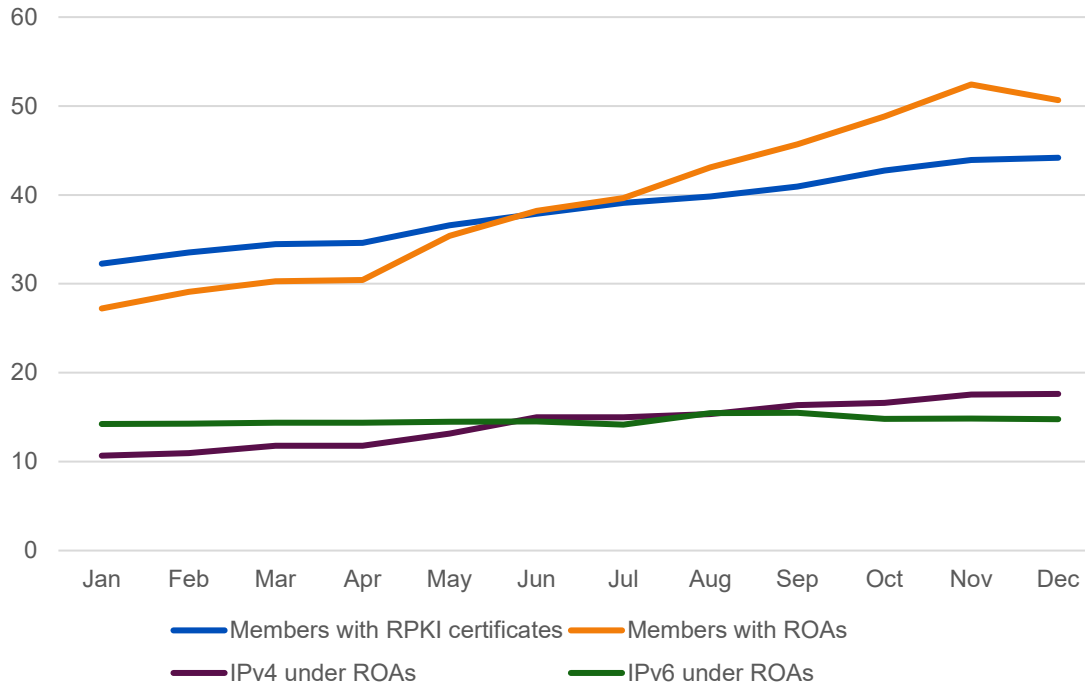
# RPKI



- Strong growth in ROA adoption: from 27.2% in Jan to 50.6% in Dec

- RPKI Deployathon at APRICOT 2020 (40 participants)

- ROA outreach and ROV support in AU, MV, MM, PK, MN, TG, LK

- 18 RPKI-focused training events

- Mongolia achieved 100% ROA coverage in Oct

# IPv6

- F2F training sessions at bdNOG 11, SANOG 35, PhNOG 2020

- Seven online tutorials (three sub-regional series; plus Cambodia, China, Brunei, Maldives)

- Four new IPv6 deployment success stories published, bringing total to 39

- 42 IPv6 tagged posts published on APNIC Blog



IPv6 deployment training at bdNOG 11



**3BB Broadband (Thailand)**

IPv6 capability in Thailand has increased from around 2% to 30% with the help of 3BB.

📄 3BB helps grow IPv6 capability in Thailand

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Add Bengali language to APNIC Academy online platform** | Completed | 🟢 |
| **Convert three old online training courses to new video-based format** | 2 completed | 🔴 |
| **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** | 6 virtual labs<br><br>3 instructor-led labs | 🟢 |
| **Conduct 60+ face-to-face training sessions equitably across the four sub-regions** | 10 F2F training sessions<br><br>46 live online training sessions<br><br>18 live webinars | 🟢 |
| **Recruit and maintain a pool of 25 qualified Community Trainers from four sub-regions** | 24 Community Trainers | 🔴 |
| **Start conducting structured technical assistance over the APNIC Academy online platform** | 2021 scheduled launch | 🔴 |
| **Publish four IPv6 deployment case studies** | 4 published | 🟢 |

# Investments

APNIC Academy development

- New course catalogue and learning pathways guide
- New registration system for APNIC Foundation projects
- Bengali translation of the Academy website and courses completed for 2021 launch
- Technical design for technical assistance platform completed

# Internet Infrastructure Deployment

## IXPs and Root Servers

- Donated network equipment to Fiji IXP, Lahore IX, BKNIX, Bhutan IX

- IXP design and operation advised to Maldives IXP

- Helped VNIX with route server filtering policy template

- Helped MyIX and HKIX with technical validation of ROV deployment

- K-root deployments in CN and VN; upgraded J and K-root in Brisbane; new M-root in Brisbane

## Honeynet

- Backend systems serving project upgraded and enhanced

- Provided additional insights for DASH

- Five new partners from Hong Kong, Bangladesh, Malaysia, Indonesia and Japan

# Success Measures

| Targets | Results | Status |
| --- | --- | --- |
| **Support deployment of at least two new or upgraded IXPs** | 3 IXPs | 🟢 |
| **Support deployment of at least six new rootserver instances at IXPs or other networks** | 3 completed | 🔴 |
| **Support at least six IXPs to deploy RPKI on their route servers** | 2 IXPs | 🔴 |
| **Deploy at least four RIPE Atlas anchors at various networks** | 1 deployment | 🔴 |
| **Establish five new Community Honeynet partners** | 5 new partners | 🟢 |

# Investments

**M-root anycast instance deployment**

- MoU with WIDE Project and JPRS signed
- Deployed in Brisbane; two in progress in PH and GU

**Security threat sharing platform**

- Platform deployed

# INFORMATION

# APNIC Blog
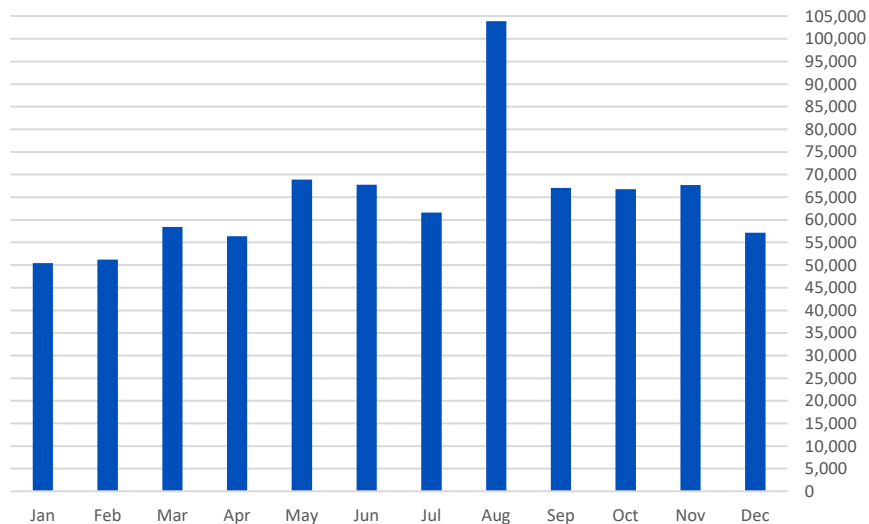


Monthly Unique Views
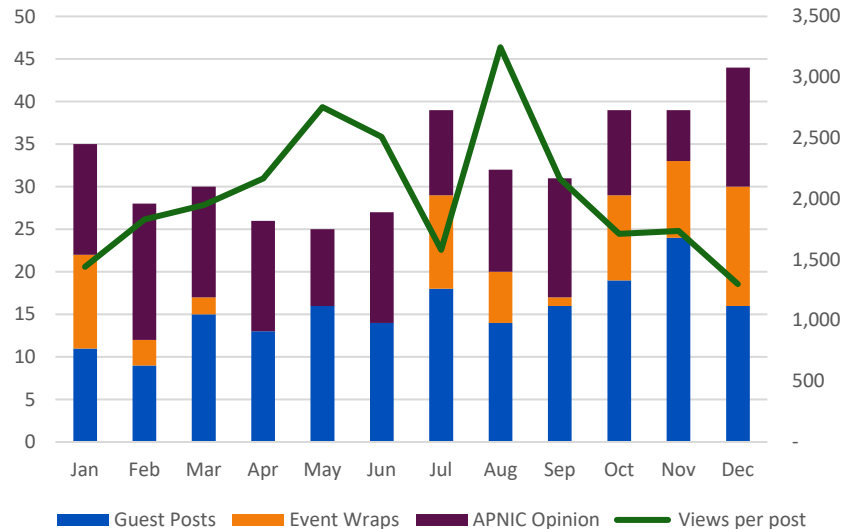


Monthly Blog Posts

- 64,778 views/month (⇧ 35% on 2019)
- 2.5m views (all-time) milestone in October
- Chromium Guest Post in Aug led to 41% reduction in root zone queries

APNIC

58

# Information Products

- Internet Directory
  - RDAP and whowas tabs added
  - New information architecture in development
  - Comparison mode for AS interconnection diagrams enabled
  - Interface improvements for usability and consistency
  - Usability score 4.1 (Target 4.5)

- DASH
  - DASH v1.0 released during APNIC 50
  - DASH users increased from 99 in Q2 to 1,914 in Q4
  - Developing recurring delivery of reports feature
  - Usability score 4.6 (Target 4.5)

- NetOX
  - New version released APNIC 50
  - Chinese language pilot (simplified and traditional)
  - NetOX users increased from 347 in Q2 to 2,332 in Q4
  - Usability score 4.7 (Target 4.5)

# Success Measures

| Targets | Results | Status |
|---|---:|:---:|
| **Reach 2.4 million blog views (all time)** | 2,638,935 views | 🟢 |
| **Average 50,000 blog views per month** | 64,778/month | 🟢 |
| **Maintain blog Guest Post ratio between 45 to 50%+** | 56% | 🟢 |
| **Achieve a net promoter score higher than 70 for Internet Directory, NetOx and DASH** | 37, 71 and 68 respectively | 🔴 |
| **Achieve a usability score higher than 4.5 for Internet Directory, NetOx and DASH** | 4.1, 4.7 and 4.6 respectively | 🔴 |
| **Achieve at least 30% returning users to the Internet Directory, NetOX and DASH** | 138%, 206% and 22% respectively | 🔴 |
| **Participation in user research activities of at least eight users per product during the year** | 66 participants | 🟢 |

# Research and Analysis



Geoff Huston
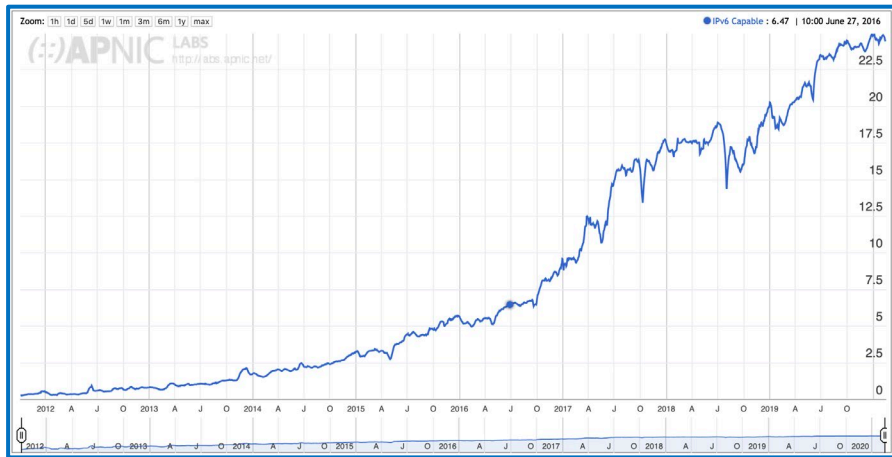
- Research projects
  - IPv6 capability
  - Advertised, unadvertised and reserved pools analysis
  - BGP growth and anomaly detection
  - RPKI ROV monitor in development
  - DNS research — DOH usage, large responses
- Cooperative research
  - Routing data for MANRS
  - ITHI measurement framework
  - Measurement on DNS and DNSSEC with ICANN
- 39 presentations at RIRs, NOGs, IETF
- 26 research blog posts

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Twelve research articles and reports published** | 26 published | 🟢 |
| **Ten research presentations delivered** | 39 presentations | 🟢 |
| **Two presentations to Policy SIG meetings** | 1 presentation | 🔴 |

**CAPABILITY**
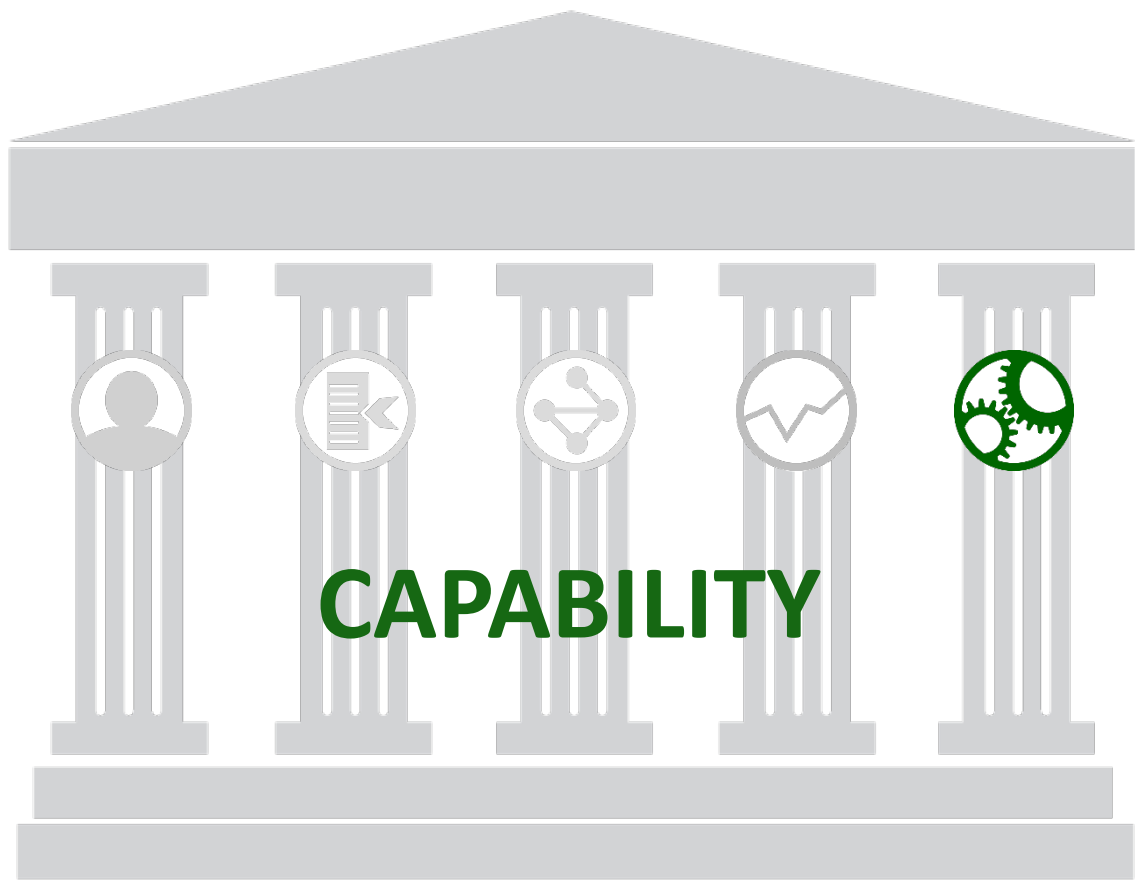
# Internal Technical Infrastructure

| **Information architecture and management** | • Dependency management framework complete<br>• Six new APIs specified to improve internal system integration<br>• Improvements to technical selection guidelines for Product Managers |
| --- | --- |
| **Network and infrastructure operations** | • Transit and peering connectivity reviewed<br>• New gigabyte IX peering established with EdgeIX from NextDC B1<br>• Redundant peering with Google established<br>• MANRS compliant after ISOC evaluation<br>• Wi-Fi upgraded to support Wi-Fi 6 standard |
| **System and platform operations** | • RDAP deployed to Google Cloud GKE cluster<br>• Cloudflare configured to load balance production traffic to the GKE cluster supporting RDAP<br>• Terraform is being written to allow deployment of GKE clusters to multiple regions<br>• Production usage data from Sydney analysed to determine best cost options for multiple RDAP deployments; NIR RDAP services also deployed on GCP<br>• TLSv1.0 and TLSv1.1 deprecation across all APNIC services<br>• HSM configured to create a separate key for RPKI AS0 ROA<br>• Cloudflare reconfigured to use heavy caching to improve response and availability |

# Internal Technical Infrastructure

| | |
|---|---|
| **CSIRT operations** | • Vulnerability Reporting Program published and new GPG key for CSIRT email (csirt@apnic.net)<br>• External penetration testing completed with no high severity vulnerabilities<br>• Security awareness training for staff during COVID-19 WFH period<br>• Audit of administrator accounts and review of current technical controls conducted<br>• Seven security advice documents issued<br>• AUP and BYOD policy updated as part of ISO 27001 ISMS<br>• ISO 27001 gap analysis conducted with remediation work in progress |
| **Enterprise application management** | • Litmos implemented for staff compliance with internal policies<br>• All staff and Community Trainers migrated to OKTA for web application access<br>• S/MIME Digital Signing and email encryption implemented<br>• Legacy Application Roadmap to move internal apps to Open ID Connect standards |
| **Service availability** | • 99.98% Critical services; 99.99% Non-critical services |

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Develop dependency management framework using APIs to map system dependencies** | Completed | 🟢 |
| **Availability of 99.95% for critical APNIC services and 99.9% for non-critical APNIC services** | 99.98% critical services<br>99.99% non-critical services | 🟢 |
| **Annual stocktake and audit of all IT hardware completed** | Completed | 🟢 |
| **Begin investigations and notify senior management within two hours of on-call notification and achieve containment within four hours for any critical incident** | No critical incident reported | 🟢 |
| **All EC, Community Trainers, and APNIC staff credentials managed under OKTA** | Completed | 🟢 |
| **Roadmap completed for removal of legacy data systems** | 2021 scheduled completion | 🔴 |

# Investments

| Network presence at Asia Pacific Internet hubs |
|---|

- Remote connection to Equinix IX Singapore established with significant reduction in latency
- Direct remote connection to HKIX in progress
- Reachability measured using RIPE Atlas anchors

# Finance and Business Services

- External full recertification audit of ISO9001:2016 QMS successfully completed

- Audit of APNIC's financial accounts completed by Deloitte

- New PBCS financial reporting tool implemented

- COVID-19 response
  - Dedicated BCP team established, meeting weekly
  - WFH planned and implemented from March
  - Office access and facilities/hygiene management

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Knowledge management tools identified, and implementation project plan developed** | Completed | 🟢 |
| **Successful audit of APNIC's annual financial accounts** | Completed | 🟢 |
| **Successful completion of annual ISO quality management compliance audit** | Completed | 🟢 |
| **Successful implementation of the new PBCS financial reporting tool and framework** | Completed | 🟢 |
| **Quarterly BCP scenario testing undertaken** | Completed | 🟢 |

# Investments

| Business intelligence | • Data warehousing system deployed for production in August |
| | • Initial data mart in development, including feedback cycle to improve data warehouse, resulted in significant improvements to data warehouse deployment |

# Employee Experience

- All non-product teams completed 'Agile Fundamentals' certification

- 12 permanent/casual roles successfully filled
  - Salary and benefits review completed in December

- All ELT, management and specialists participated in leadership development program

- Introduced 7 COVID-19 related policies

- Building surveillance system upgraded

# Success Measures

| Targets | Results | Status |
| --- | :---: | :---: |
| **Strategic goals clearly cascade to individual performance measures in 2020 annual reviews** | Postponed to Jan 2021 | 🔴 |
| **Risk management data demonstrating any WHS incidents are not caused by APNIC's local or remote environments** | Achieved | 🟢 |
| **Building surveillance system upgraded** | Completed | 🟢 |
| **Staff turnover rate is within acceptable benchmarks of between 5 and 15%** | 3.5 % turnover | 🟢 |
| **Professional development budget is fully spent, and addresses needs identified in performance reviews wherever possible** | Completed | 🟢 |
| **Identify workplace policies that are not aligned with best practice in Australia and provide recommendations for 2021 budget** | Completed | 🟢 |

# Investments

| Product management |
|---|

- Product teams for Academy online platform and enterprise applications established
- Product management training completed with ongoing coaching provided

# Governance

- EC support
  - Sumon Ahmed Sabir and Achie Atienza elected to EC for the first time, Kam Sze Yeung re-elected for a third term
  - EC meeting held in Melbourne in February, teleconferences in March, May, June, September, and December

- Corporate governance and legal
  - Revised Strategic Risk Register under Strategic Plan 2020-2023
  - Updated Privacy Statements published for APNIC and APNIC Foundation
  - Crisis management and communication training provided to Leadership Team in March

# Success Measures

| Targets | Results | Status |
|---|---|---|
| **Revised Strategic Risk Register fully implemented** | Completed | 🟢 |

# THANKS!

# APNIC Secretariat Report

1 January – 31 December 2020

**CONFIDENTIAL DRAFT 1.0**

# Contents

# Figures

# Tables

# Executive Summary

## Introduction

This report is provided to the APNIC Executive Council (EC) for the quarterly meeting held online on 22 February 2021. **It provides a summary of activities for 2020.**

The structure of this report reflects the APNIC Strategic Plan 2020-2023 and the 2020 Operational Plan, with activities reported according to Strategic Pillar and Workstream, and against their Success Measures.

Feedback on this report is very welcome.

## Highlights

The following is a summary of significant highlights for the year to date, also grouped according to Strategic Pillar.

### Membership

- APNIC Membership passed 8,000, with 8,316 Members as of 31 December. (1A.1).

- The 2020 APNIC Survey was conducted from 13 to 31 July. Participation increased by 31% compared to 2018, with 1,624 responses, and 35% of respondents used the translated versions (available in 16 languages). The final results were reported at APNIC 50 (1A.4)

- The new MyAPNIC portal was released in February and was migrated to the 'APNIC Login' SSO (1B.1).

- The whois 'abuse-c' attribute was reinstated to parent objects and will reference the IRT objects via a newly created 'Role' object ([prop-125](#)) (1B.1).

- A fully online election platform was used for the EC election at APNIC 49 and the NRO NC election at APNIC 50. (1B.3).

- A new APNIC membership application form was launched in June, resulting in a 70% reduction of fake applications. (1B.1).

- The 2020-2023 Strategic Plan, 2020 Activity Plan, and 2019 Annual Report were published (1C.1).

### Registry

- The annual target of 65%+ APNIC Members holding IPv6 address space was reached in April (2A.1).

- Around 1.1 million historical IPv4 addresses were voluntarily returned to the available pool in August following APNIC contact with the resource custodians (2A.4).

- A new IPv4 Listing Service for Members to publish available IPv4 address space was deployed in July (2A.4).

- RDAP cloud deployment was completed, resulting in higher availability and a significant reduction in RTT (2B.2).

- The AS0 ROA Service ([prop-132](#)) was deployed to production with full monitoring and reporting (2B.3).

- Results of the Policy documentation review were presented at APNIC 50, with a further two-hour community consultation held on 30 October to discuss the report. An editorial review was launched on 10 December with final comments due 6 January 2021. (2C.4).

### Development

- There were 473 Zoom remote attendees and 659 live YouTube views (4,003 total YouTube views) for APNIC 50. There were 505 newcomers at APNIC conferences this year. (3A.1 and 3D.3).

- Shubham Saran was elected to the NRO NC for a two-year term beginning 1 January 2020. The EC appointed Nicole Chen to the NRO NC for a one-year term, also beginning 1 January 2020 (3A.1).

- Funding of the ISIF Asia 2020 Network Operations Research Grants was expanded to USD 120K to select four projects (3B.2).

- The Networking from Home (NFH) event series was held in collaboration with 21 NOGs. Four events were held between June and August, with 1,219 participants from 45 economies (3C.1).

- Staff participated in 27 community security events and five CERT engagements (3C.2).

- APNIC staff authored the chapter 'Putting the technical community back into cyber (policy)' of the *Routledge Handbook of International Cybersecurity*, published in February (3C.4).

- A sector membership application was submitted to the ITU-T, subject to a requested fee exemption (3C.5).

- APNIC participated in regional preparations for ITU's World Telecommunication Standardization Assembly (WTSA) and World Telecommunication Development Conference (WTDC) (3C.5).

- The first two meetings of the new Routing Security SIG were held at APNIC 49 and 50 (3D.1).

- The NFH project was a finalist in three Asia Pacific SABRE Award categories, winning a certificate of excellence for branding and design (3D.2)

- The online participation campaign for APNIC Academy helped attract 2,548 attendees to 18 webinars, and 687 new Academy user registrations (3D.2).

- Two new Academy courses are in development, Network Management and Monitoring, and Network Automation. A new course catalogue and learning pathways guide was added to the website (3E.1 and 3E.8).

- Contracts were renewed for 19 Community Trainers (CTs) and five new CTs were recruited, bringing the total to 24 (3E.4).

- RPKI adoption has increased in 2020. Members with ROAs have increased from 27.2% in January to 50.6% in December. (3E.6).

- An MoU was signed with WIDE and JPRS on M-root collaboration, and the first deployment in Brisbane was completed while Viet Nam is in progress (3F.3).

## Information

- The APNIC Blog experienced a 35% increase in views and has passed 2.5 million views (all time) (4A.1).

- An influential APNIC Blog Guest Post on Chromium's impact on DNS queries led to redevelopment of Chromium code and a 41% reduction in global root zone traffic by the end of 2020 (4A.1).

- Updates were launched to the DASH and NetOX products, resulting in a substantial increase in users (4A.2).

- APNIC Labs published 26 blog articles on research findings (4B.2).

## Capability

- A new gigabit IX connection was established with EdgeIX Australia at NextDC B1, as well as redundant peering with Google via PCCW Console Connect (5A.2).

- Deprecation of TLS v1.0 and v1.1 was completed across all APNIC web services, with API/machine accessed services completed in August 2020 (5A.3).

- External penetration testing was completed with the final report detecting no high severity vulnerabilities (5A.4).

- Internal Acceptable Use Policy (AUP) and Bring Your Own Device (BYOD) policy were updated (5A.4 and 5A.5).

- A Vulnerability Reporting Program was announced in July and received 31 unique and verified vulnerability reports from external security researchers. (5A.4).

- A remote connection to Equinix IX in Singapore was established to allow direct peering with networks in South East Asia and South Asia to reduce network latency (5A.6).

- A COVID-19 BCP response team monitors and advises on APNIC staff travel, office operations and events during the pandemic. (5B.3 and 5C.2).

- APNIC filled 10 vacant permanent roles and several contract and casual positions (5C.3).

- Updated privacy statements for APNIC and the Foundation were published (5D.2).

# Budget Performance

The following table summarizes budget performance to date, for FTE (staff time) allocation, and operational and capital expenditure, across all workstreams.

| Workstream | FTE | | | Expense | | | Capital | | |
|---|---|---|---|---|---|---|---|---|---|
| | Budget | Actual | Variance | Budget | Actual | Variance | Budget | Actual | Variance |
| Member Services | 9.8 | 9.35 | 5% | 2,461,629 | 2,301,059 | -7% | | | |
| Membership Products | 7.15 | 7.45 | 4% | 1,127,922 | 1,256,789 | 11% | | | |
| Membership Reporting | 0.6 | 1.11 | 85% | 633,245 | 447,994 | -29% | | | |
| Registration Services | 3.7 | 4.78 | 29% | 645,389 | 664,335 | 3% | | | |
| Registry Products | 5.3 | 5.11 | -4% | 825,807 | 909,329 | 10% | | | |
| Policy Development | 0.85 | 0.71 | -17% | 640,320 | 381,191 | -40% | | | |
| APNIC Conferences | 4.6 | 4.36 | -5% | 1,405,301 | 1,082,485 | -23% | 1,000 | 4,174 | 317% |
| Foundation Support | 1.15 | 1.41 | 22% | 865,463 | 972,229 | 12% | - | - | |
| Community Engagement | 7.15 | 5.69 | -20% | 2,493,689 | 1,776,609 | -29% | - | - | |
| Community Participation | 1.1 | 0.56 | -49% | 203,283 | 194,046 | -5% | - | - | |
| APNIC Academy | 8.45 | 9.10 | 8% | 2,330,523 | 1,875,366 | -20% | - | 20,991 | 100% |
| Internet Infrastructure Support | 1.1 | 0.94 | -14% | 1,324,458 | 1,009,209 | -24% | 395,000 | 17,288 | -96% |
| Information Products | 4.9 | 6.33 | 29% | 794,498 | 878,750 | 11% | | | |
| Research and Analysis | 0.85 | 1.09 | 29% | 849,155 | 696,443 | -18% | 80,000 | 48,643 | -39% |
| Internal Technical Infrastructure | 13.1 | 13.35 | 2% | 3,140,201 | 3,152,562 | 0% | 207,600 | 411,770 | 98% |
| Finance and Business Services | 8.2 | 7.02 | -14% | 1,999,138 | 1,821,675 | -9% | 55,000 | 14,408 | -74% |
| Employee Experience | 2.45 | 5.10 | 108% | 1,692,464 | 1,618,344 | -4% | | | |
| Governance | 1.55 | 1.53 | -1% | 860,539 | 743,856 | -14% | | | |
| | 82 | 85.0 | 4% | 24,293,024 | 21,782,270 | -10% | 738,600 | 517,274 | -30% |

Notes:  ■ <= 25% variance  ■ > 25% <= 50% variance  ■ > 50% variance

**Table 1: Budget performance summary**

# 1    Membership

## 1A    Member Services

## Operations

### 1A.1    Member services

**SLA for service requests**

▪ While maintaining an average above 99%, SLA achievement was slightly reduced during March and April this year as the Services team adjusted to working from home due to COVID-19.
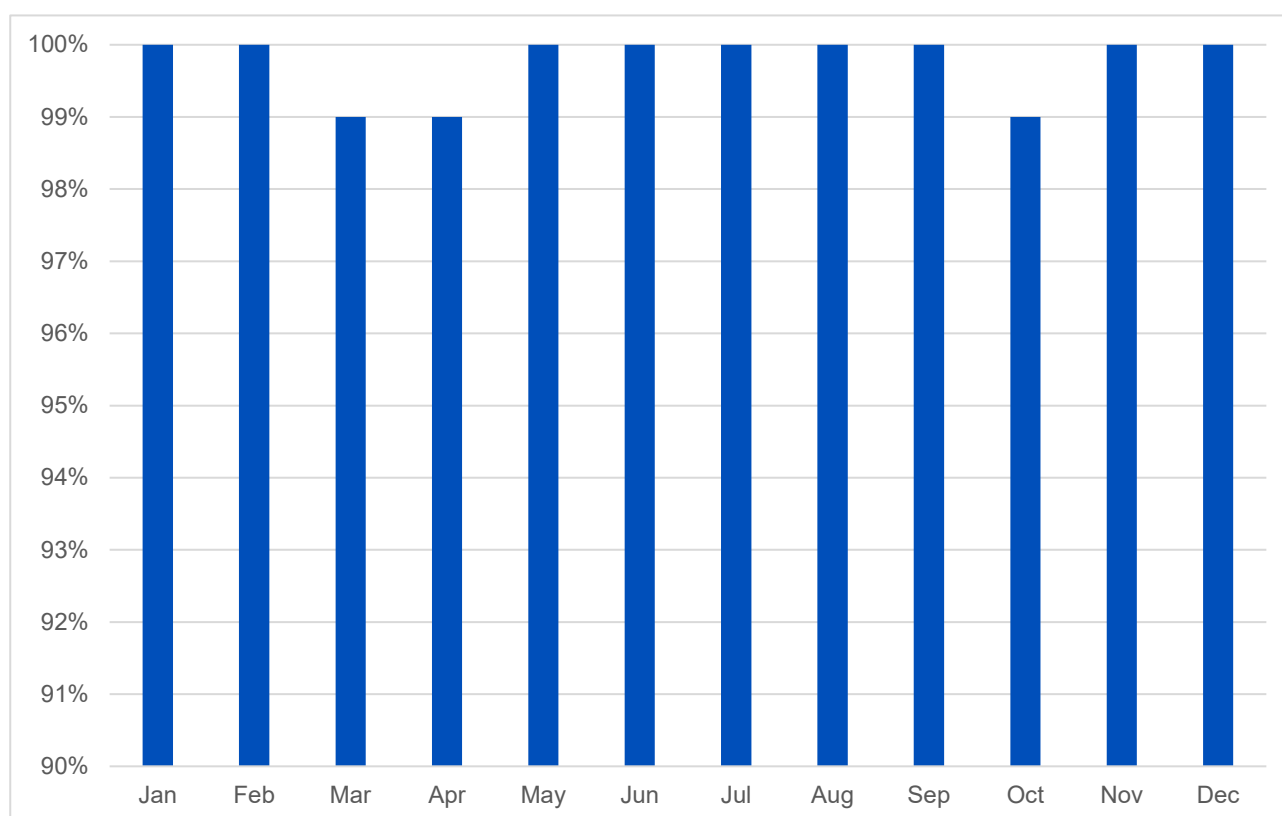


**Figure 1: Service SLA**

**Service satisfaction ratings**

▪ Service satisfaction remained high with 92.3% 'excellent' and 'above average' scores, and 4.5% 'below average' and 'poor' scores.
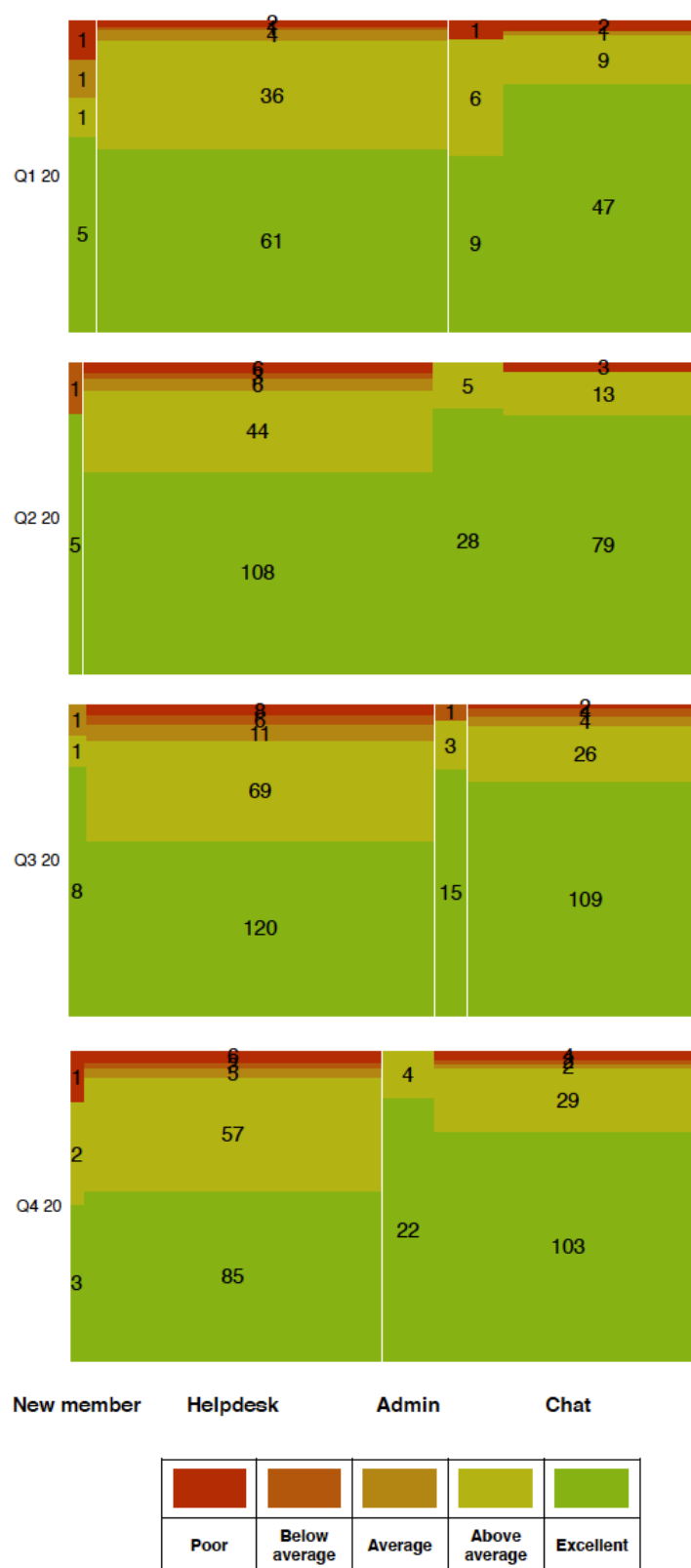
**Figure 2: Service satisfaction**

## Membership Growth
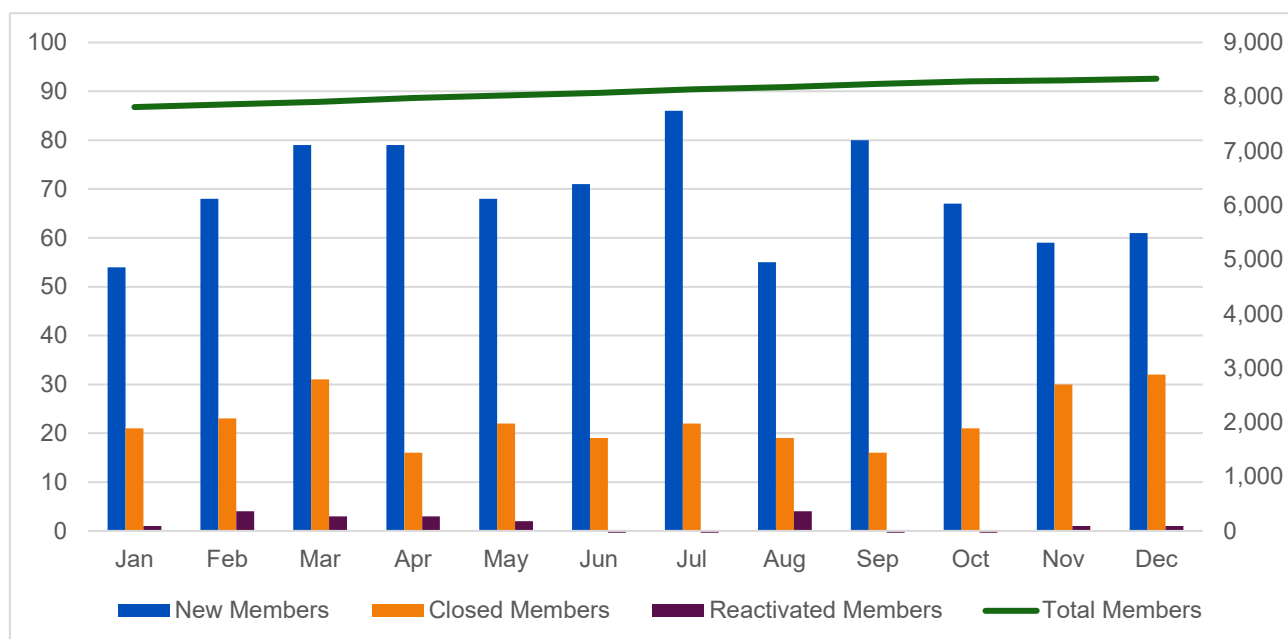


**Figure 3: Membership transactions**
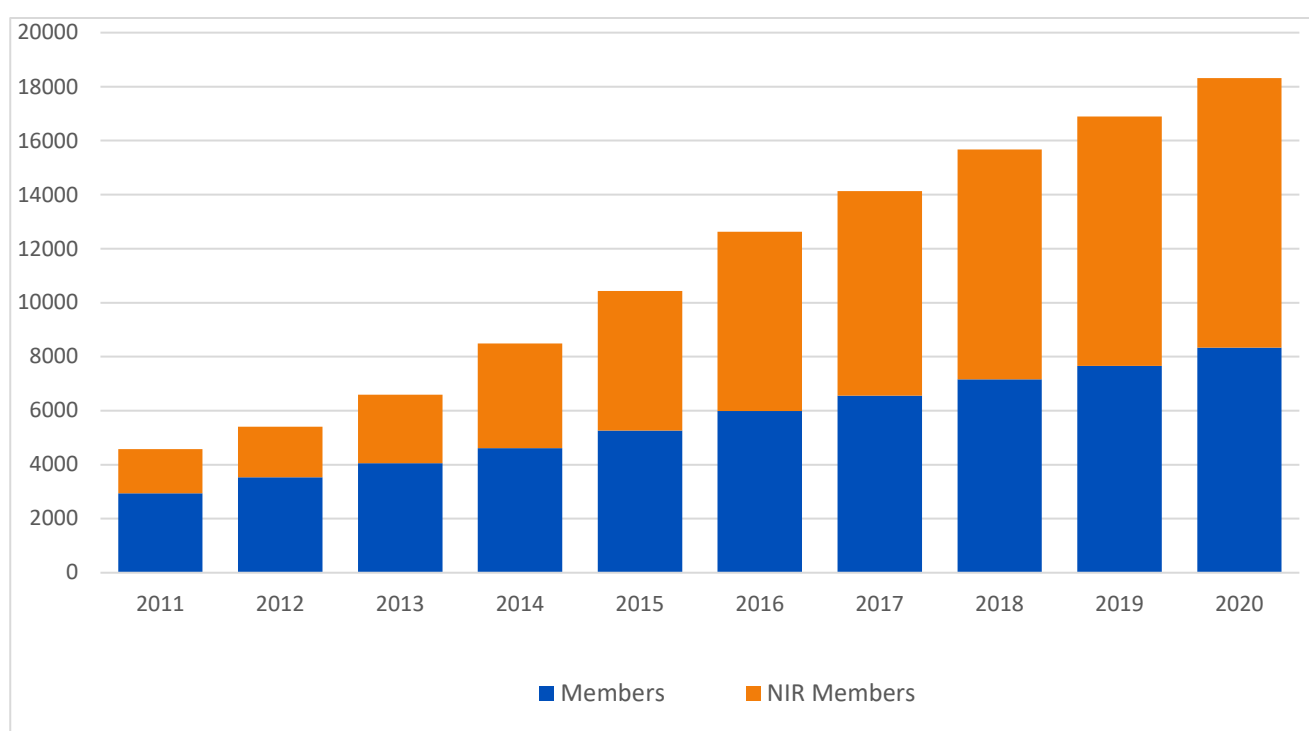


**Figure 4: Total membership**
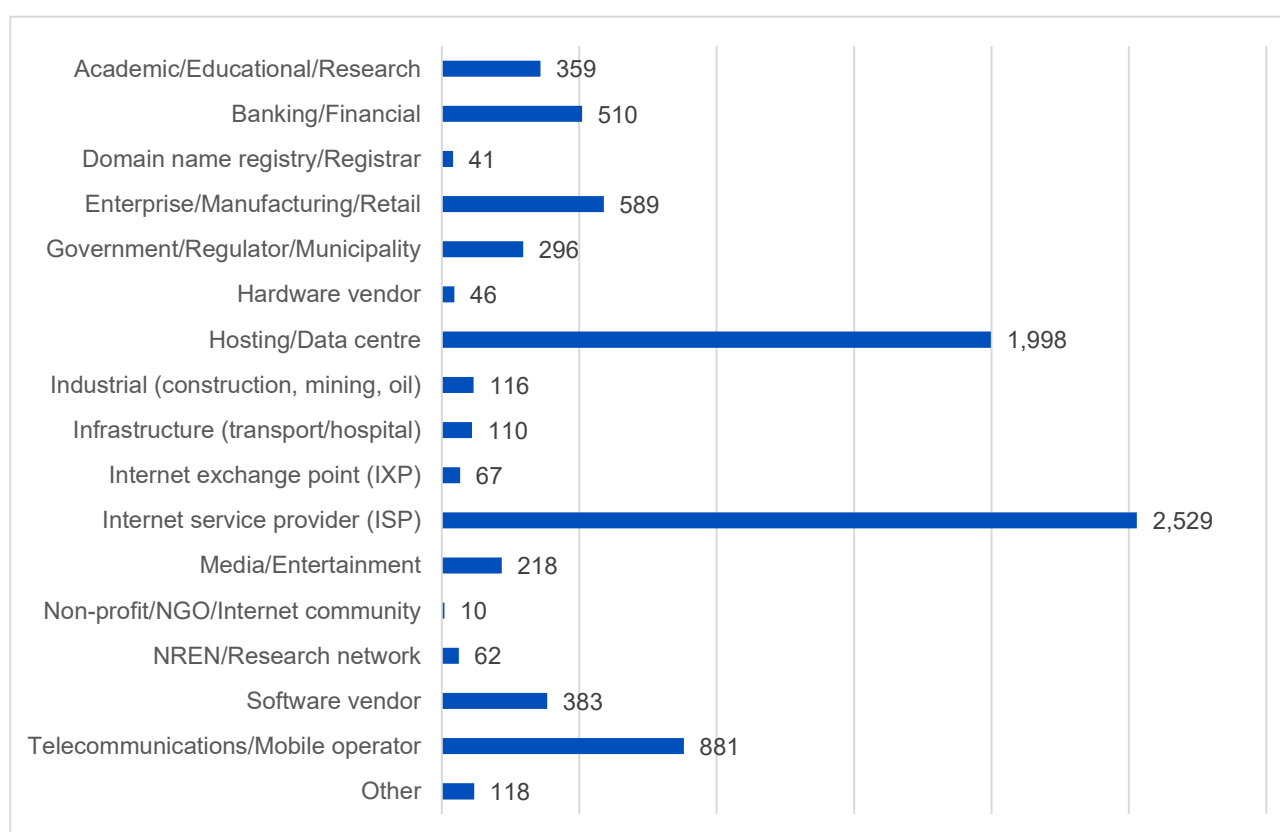
**Figure 5: Membership by industry type**

**Fraud Handling**

▪ Fraud cases increased during March and April, with more attempts detected to open APNIC accounts with fabricated documents. Cases returned to lower levels from May to October.

▪ An audit of similar past cases resulted in some account cancellations due to breach of the membership agreement.

| Type | Jan | Feb | Mar | Apr | May | Jun | July | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Identity theft** | - | - | 1 | 1 | 1 | - | - | - | - | - | - | - |
| **Fabricated documents** | 1 | - | 5 | 6 | 1 | - | 1 | 3 | - | 2 | 3 | 2 |
| **Fabricated needs** | - | - | - | - | - | - | - | - | - | - | 1 | - |
| **Total fraud cases** | 1 | 0 | 6 | 7 | 2 | 0 | 1 | 3 | 0 | 2 | 4 | 2 |

**Table 2: Fraud cases**

## 1A.2    Member experience

▪ A monthly review of feedback collected across all channels was established, with results shared in fortnightly leadership team meetings.

▪ An independent third-party audit on the accessibility of APNIC websites was completed. Activity to address the recommendations will be included in 2021 planning.

### 1A.3    Membership development

▪ New Member outreach was conducted at APRICOT 2020 and at NOGs including SANOG 35, JANOG 45 and MMIX and MMNOG Forum 2020. APNIC also participated in the first fully online ConnecTechAsia 2020.

▪ A total of 827 new Members joined APNIC in 2020 (see 1A.1).

▪ Sixteen new Members came from Member referrals, seven of which were from Service Partners.

### 1A.4    APNIC Survey

▪ Survey Matters attended the EC meeting during APNIC 49 and presented recommendations for the 2020 APNIC Survey.

▪ In place of previous Focus Group meetings, 41 remote interviews with APNIC Members and other stakeholders were conducted across 24 economies (including all seven NIRs) providing direction for the development of the online survey questionnaire.

▪ The final survey questionnaire was approved by the EC in June and the survey was held from 13 to 31 July.

▪ Survey participation increased by 31% compared to 2018, with 1,624 responses; and 35% of respondents used the translated versions (available in 16 languages).

▪ Final results were reported by Survey Matters at APNIC 50.

## Success measures – 1A

| Targets | Results | Status |
|---|---|---|
| **Maintain helpdesk SLA of 48-hour business day response to enquiries** | 99% SLA | 🟢 |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback, and less than 5% "poor and below average" feedback.** | 92.3% excellent and above average 4.5% poor and below average | 🟢 |
| **Total number of Members at end of 2020 to match or exceed the 2020 budget assumption of 8,262** | 8,341 Members | 🟢 |
| **Member outreach activities in 90% of economies with APNIC Members** | 90% economies covered | 🟢 |
| **Baseline measurement of membership data currency and accuracy established** | Completed | 🟢 |
| **Successful completion of the APNIC Survey 2020, with at least 10% more respondents** | Completed | 🟢 |
| **APNIC Survey follow-up actions monitoring page updated** | Completed | 🟢 |

## 1B      Membership Products

## Operations

### 1B.1     Membership product management

**MyAPNIC**

- Updates released in February included a new dashboard for APNIC tools, services and activities.

- Access authentication was migrated to the 'APNIC Login' Single Sign On (SSO).

- User research and usage patterns are being analysed to improve user experience and prioritize feature developments.

**Prop-125 validate IRT emails**

- The process for IRT email validation was presented at APNIC 49 and implementation was completed in May.

- An 'abuse-c' attribute was reinstated to every parent resource object and will reference the IRT object via a newly created 'Role' object.

- An alternative method to validate the IRT object and changes to the validation cycle (for revalidation every six months) were implemented in Q3 following user feedback.

- The temporary locking of MyAPNIC access was reinstated in Q4.

**Membership application form**

- The new membership application form was launched in June, producing a 30% decrease in correspondence needed to process a new application and a 70% decrease in fake applications, compared with the same period in 2019.

- The ability to add a trading name to the form was implemented in Q3 and referral applications were redesigned and implemented.

- A dashboard for easier Secretariat access to membership applications statistics was developed.

**Process and system improvements**

- A new internal API was developed to allow Member data to be shared between authenticated internal applications.

- Transfer invoicing was fully automated, saving an estimated three hours per week of work by the Services and Finance teams.

## Success measures – 1B

| Targets | Results | Status |
|---|---|---|
| **Creation of baseline metrics, segmentation and categorization of RT tickets** | Completed | 🟢 |
| **Identification and analysis of online features with high latency; issues solved where possible** | Completed | 🟢 |
| **Create a baseline measurement of "mean time to deploy"** | Completed | 🟢 |

## Investments

### 1B.2    Online community platform

Developing a prototype online participation platform for community members to share knowledge and experience related to APNIC products and services.

Objectives:

▪ Identify and implement a common platform to support online participation by the APNIC community.

▪ Configure and populate the platform with related FAQ and knowledge base information.

Status:

▪ Academy and training attendees were selected as an initial use case audience to develop a prototype platform.

▪ A Help Centre prototype (providing FAQs and other product/service information) was developed for a 2021 launch.

### 1B.3    Election system

Replacing the previous in-house online election system with an external voting platform (BigPulse).

Objectives:

▪ Introduce trusted online participation independent third-party voting platform, removing reliance on internal APNIC software.

▪ Eliminate paper forms used for proxy assignment and on-site voting during APNIC Member Meetings.

Status:

▪ Following a trial with 73 community participants, BigPulse was implemented and integrated into MyAPNIC ahead of the EC election at APNIC 49 (February 2020).

▪ All voting, including proxy appointment, was completed online by 913 participants without any paper forms required. The total votes received in this election (13,603) was the highest on record.

▪ Online voting was successfully conducted on the BigPulse platform for the NRO NC election at APNIC 50.

▪ Work began in Q4 to allow for multiple election types on the BigPulse platform for SIG Chair elections.

## 1C    Membership Reporting

## Operations

### 1C.1    Planning and reporting

▪ The 2020-2023 Strategic Plan was presented at the APNIC AGM on 21 February. The plan introduced five 'Strategic Pillars' and 18 'workstreams' that form the structure of the 2020 Activity Plan.

▪ The 2020 Activity Plan and Budget, and the 2019 Annual Report, were presented at the APNIC AGM on 21 February. A Secretariat Report update was presented during the AMM at APNIC 50.

▪ The 2020 Budget was revised due to impacts of the COVID-19 pandemic and was reviewed monthly during 2020.

▪ Event Wraps (all but two) were published in line with the KPI.

▪ The 2021 Activity Plan and Budget was developed and approved by the EC in December.

## Success measures – 1C

| Targets | Results | Status |
|---|---|---|
| **On-time publishing of required reports at the APNIC AGM and at APNIC 50** | Completed | 🟢 |
| **Publishing of EC Minutes within two months of each EC meeting** | Completed | 🟢 |
| **Event Wraps published for 100% of reportable events within one month of event** | 65/67 published within one month | 🔴 |

# 2    Registry

## 2A    Registration Services

## Operations

### 2A.1    IPv4, IPv6 and ASN delegation and registration services

**Resource pools**

▪ The following table shows the current status of all APNIC number resource pools.

|  | Total at 1 Jan 2020 | From IANA | Transfers in | Transfers out | Total at 31 Dec 2020 | Total delegated | Total reserved | Total available |
|---|---|---|---|---|---|---|---|---|
| **IPv4 (/24s)** | 3,479,169 | 0 | 4,240 | 792 | 3,482,617 | 3,451,972 | 14,994 | 15,651 |
| **IPv6 (/32s)** | 1,067,008 | 0 | 0 | 0 | 1,067,008 | 87,574 | 125,887 | 853,547 |
| **ASNs** | 19,094 | 2,048 | 2 | 1 | 21,143 | 18,409 | 0 | 2,734 |

**Table 3: Resource pool status**

**IPv4, IPv6 and ASN delegations**

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

▪ The peak in ASN delegations in March was due to a bulk allocation to a confederation Member in CN. The smaller peaks in June, September and October were bulk allocations to NIRs (VNNIC, IDNIC, and IRINN respectively). IPv4 delegations peaked in September due to higher activities in IN, ID and VN.
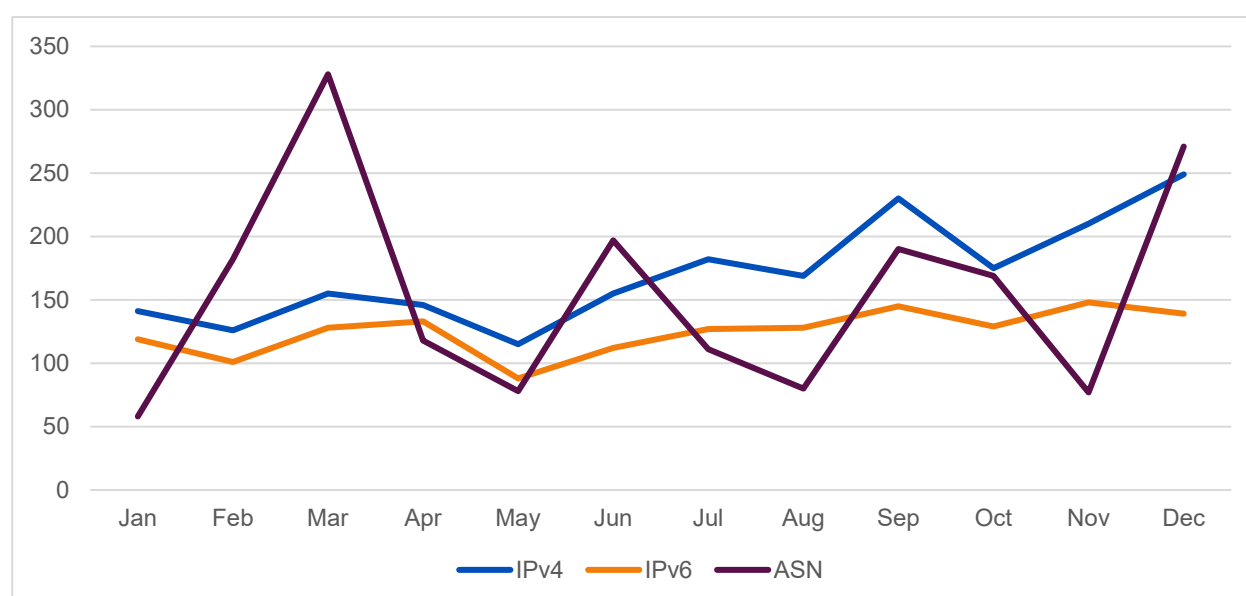


**Figure 6: Internet number resource delegations**
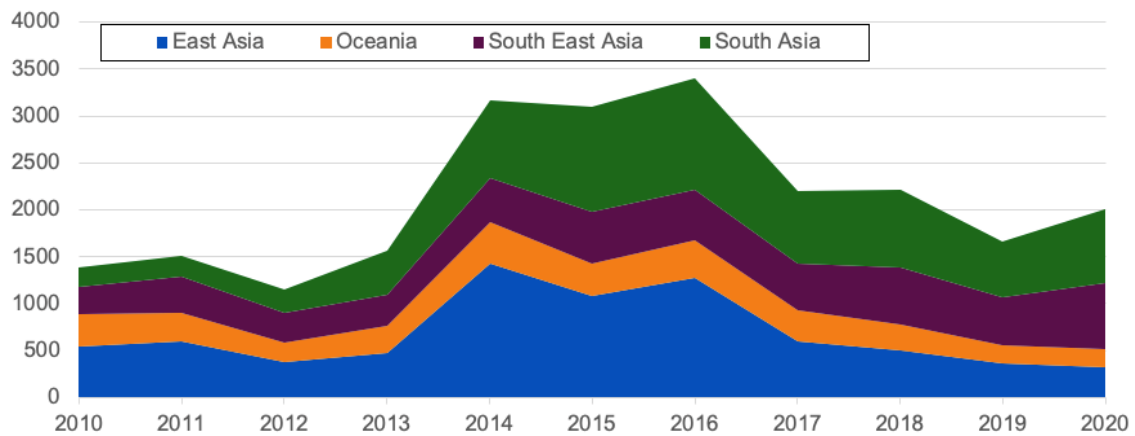
**Figure 7: IPv4 delegations**
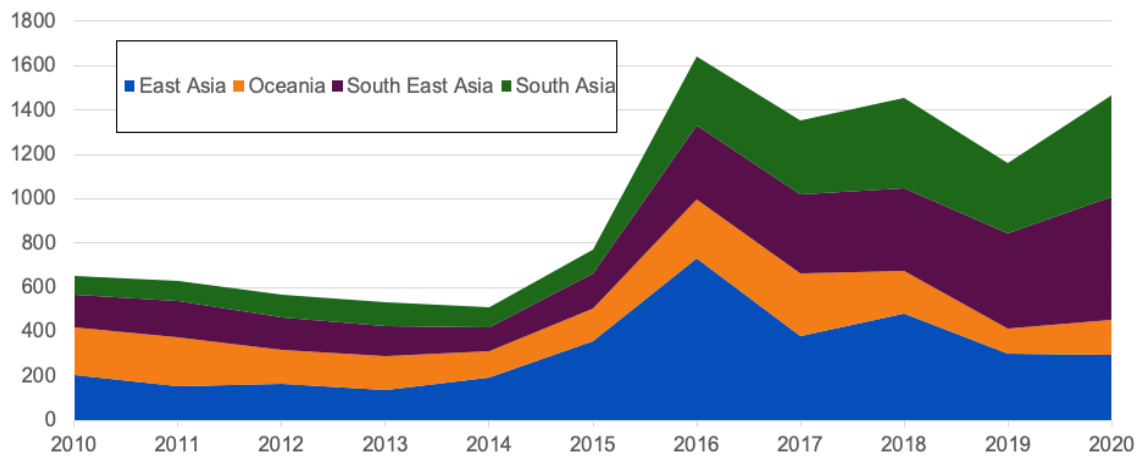


**Figure 8: IPv6 delegations**
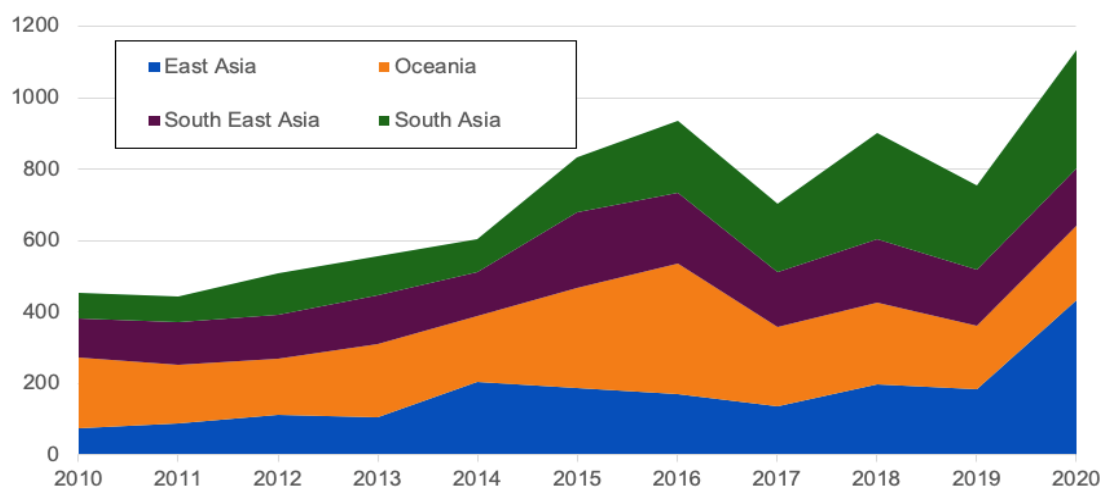


**Figure 9: ASN delegations**

## Member resource holdings

▪ The proportion of APNIC Members holding specific resource types is as follows. The percentage of Members holding IPv6 exceeded 65% (a target for 2020) in April.
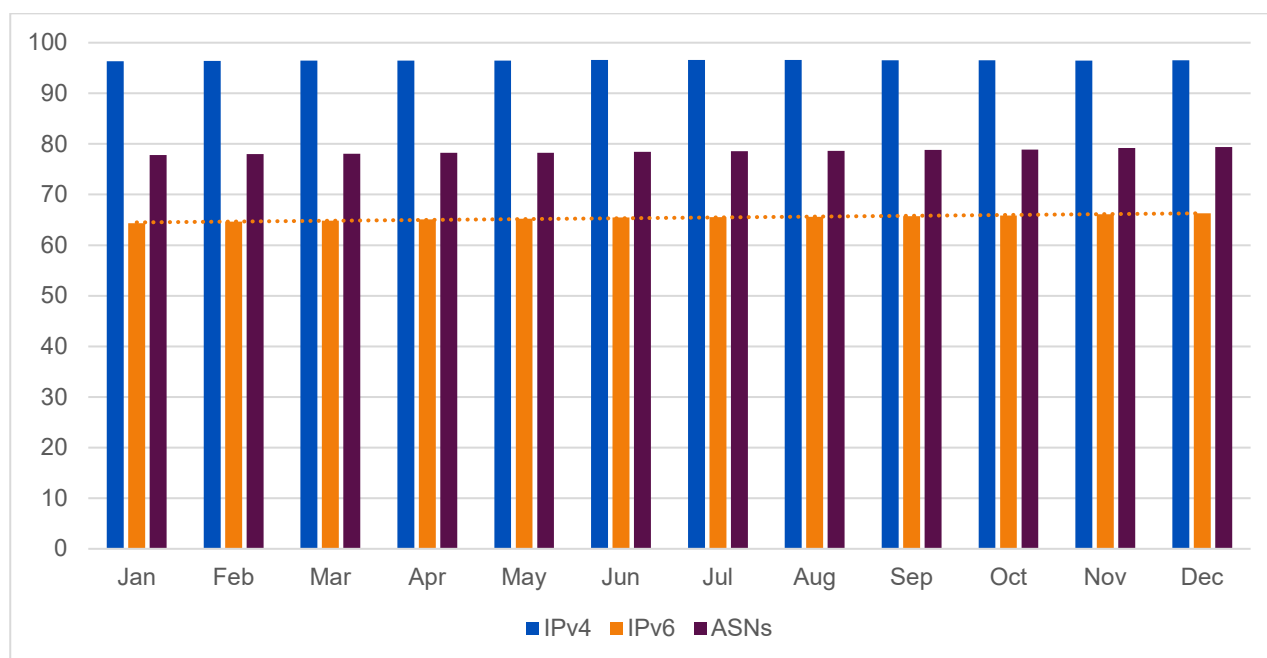


**Figure 10: Member resource type holdings**

## IPv4 pool status

▪ The following chart shows the number of reserved and available space in APNIC's IPv4 pool.

▪ The increased available space in April, July and August was due to reserved space (previously returned from account closures) that passed resource quality checks and was returned to the available pool, under the IPv4 resource recovery project. There were increased delegation activities in IN, ID and VN during September.
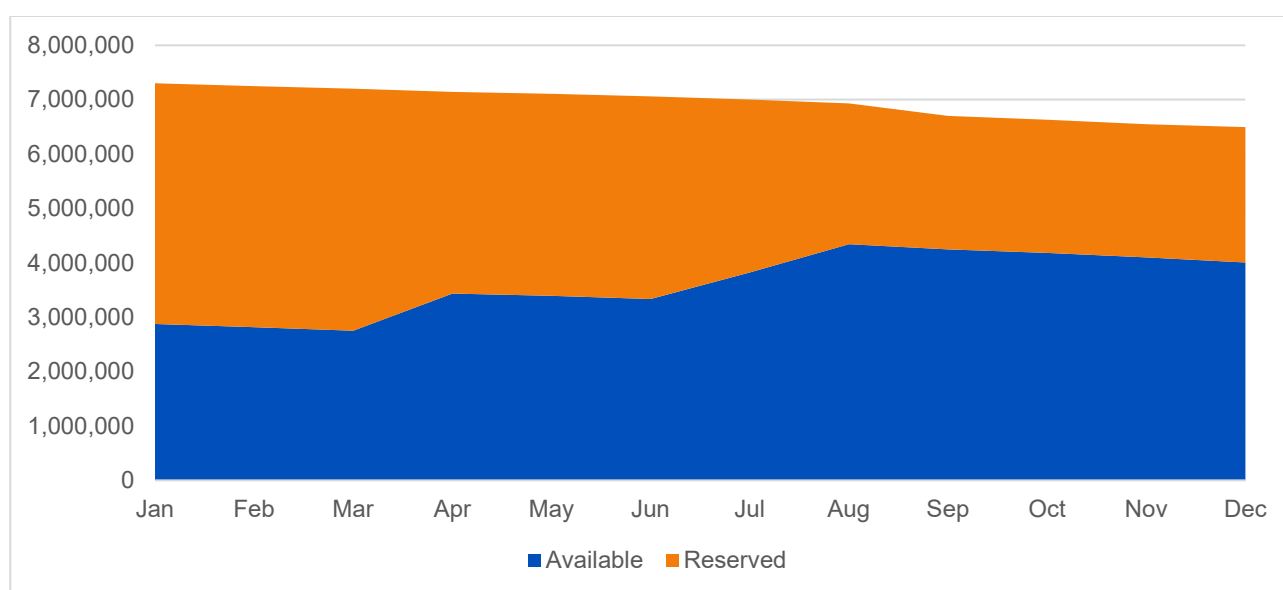


**Figure 11: IPv4 pool status**

## IPv4 transfers: Mergers/acquisitions and historical

- M&A transfer activity increased in May and June (mostly occurring in East Asia economies).

- A single large historical resource transfer (/9 + /10 + /11) was completed in March (3B.1).
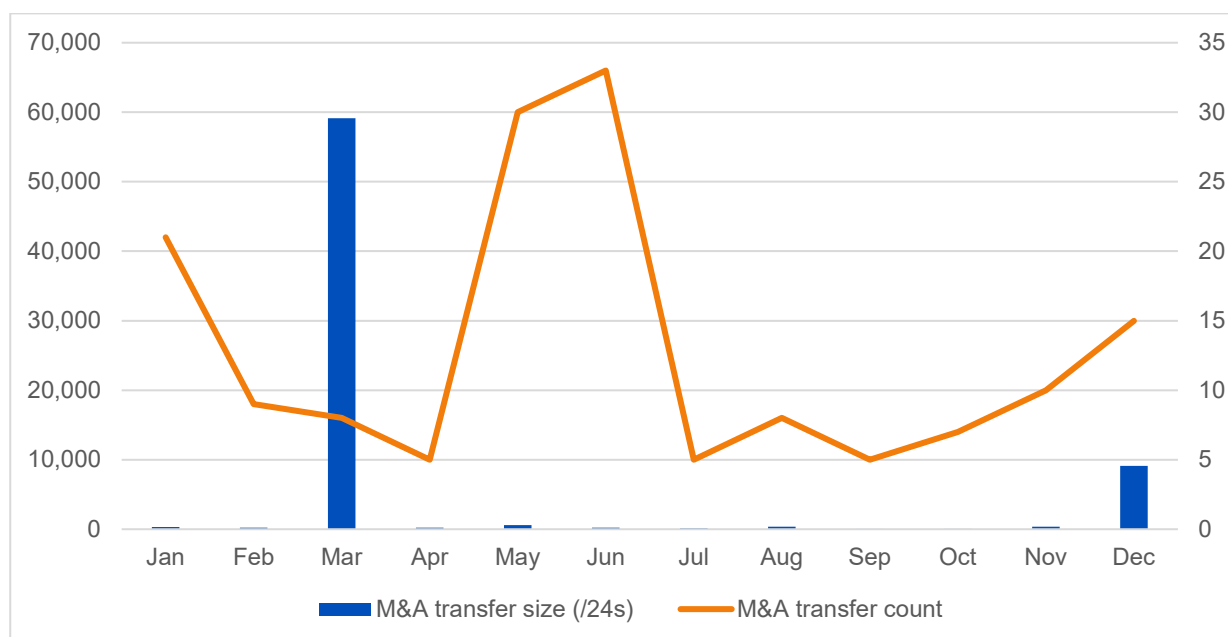


**Figure 12: M&A and historical transfers**

## IPv4 market transfers

- CNNIC made some administrative changes in November and December last year that appear as transfers between CNNIC members.

- A /9 was transferred in August, and a /10 in October, both from APIDT.
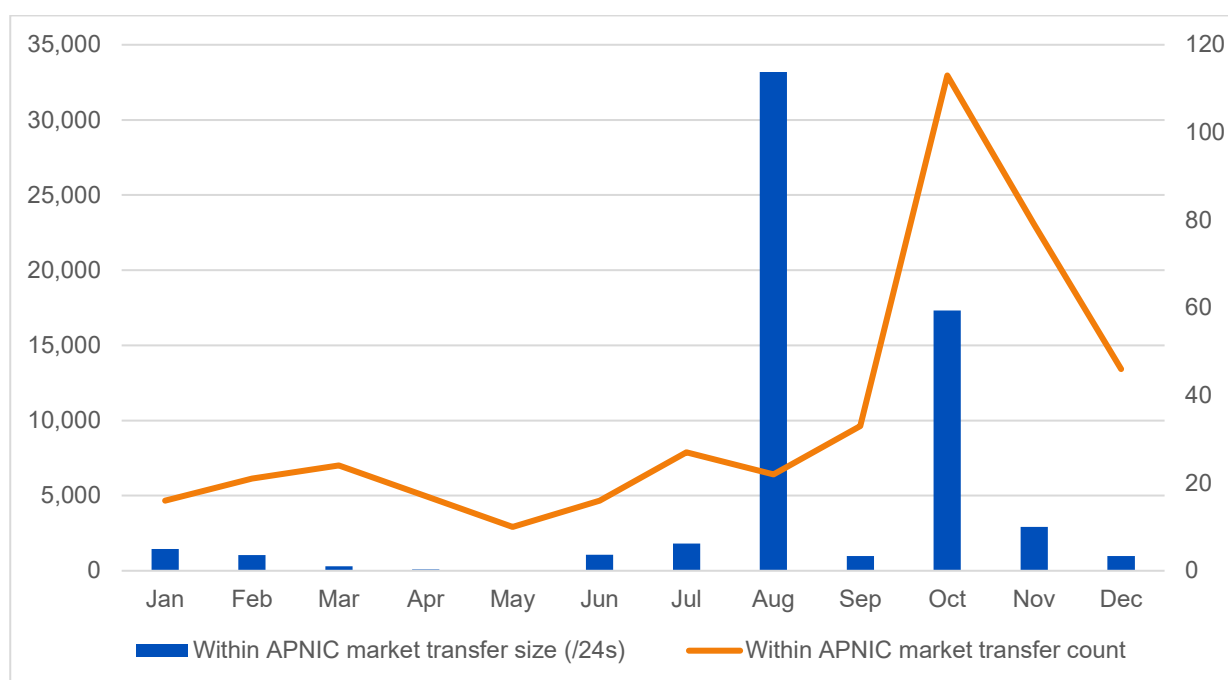


**Figure 13: Market transfers**

**Market transfers: Inter-RIR**

- No large inter-RIR market transfers occurred during 2020.
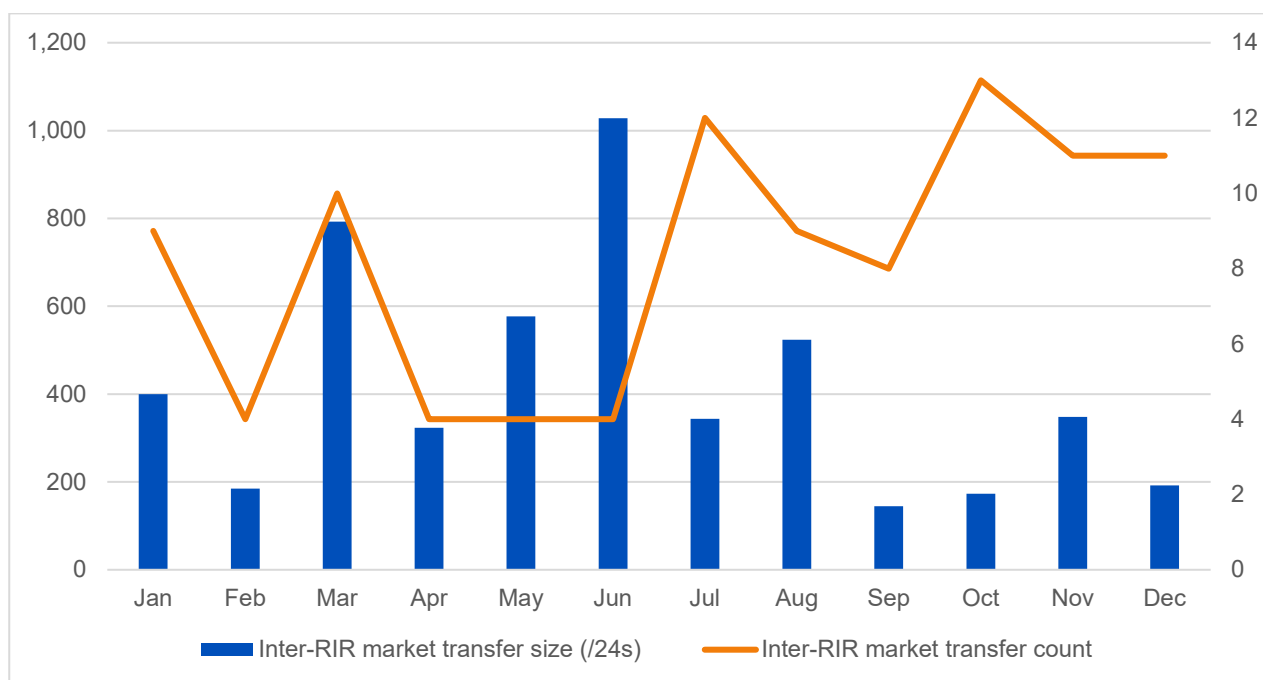


**Figure 14: Inter-RIR IPv4 transfers**

## 2A.2    Resource Quality Check (RQC)

- RQC functionality in the Network Operators ToolbOX (NetOX) provides routing history, transfer history, geolocation and blacklist information.

- Usage measurement was implemented in March 2020 and the RQC page received 1,968 views from March-December with 960 unique resources queried.

## 2A.3    Maintain correct and current registry data

- Identified and assisted 500 accounts to create their organization objects. All APNIC Members now have an organization object associated with their resources.

- CNNIC was assisted to correct a set of IPv4 transfer records and the updated transfer log was published on 28 April.

- Members validate their IRT email every six months following the prop-125 policy.

- All NIRs with historical IPv4 and ASN block-assignments were contacted to identify NIR sub-account corrections for transfers, mergers and accuracy.

## 2A.4    Reclaiming unused IPv4 address space

- Reclamation work has progressed under three categories of unrouted IPv4 space:
  - o  Current address space, delegated under the last /8 policy less than five years ago
    - –  Around 370,000 unadvertised IPv4 addresses were identified, held by 604 Members.
    - –  These Members were contacted and asked to return these addresses if not needed.
  - o  Current address space, including last /8 space delegated more than five years ago.

- Around 54 million unadvertised IPv4 addresses were identified, held by 1,309 Members.

- These Members were contacted and asked to either return the resources to APNIC or make them available for transfer.

o Historical address space

- Around 2.3 million unadvertised historical IPv4 addresses were identified.

- Final attempts are being made to contact the resource custodians. If the custodians cannot be contacted, the resources will be marked for recovery.

- Around 1.1 million historical IPv4 addresses were voluntarily returned to the available pool in August 2020 as a result of APNIC contact.

- A new service allows Members to list IPv4 address space that is available for market transfer.

## Success measures – 2A

| Targets | Results | Status |
|---|---|---|
| **Maintain Helpdesk SLA of 48-hour business day response to enquiries** | 99% SLA | 🟢 |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback and less than 5% "poor and below average" feedback** | 92.3% excellent and above average  4.5% poor and below average | 🟢 |
| **Percentage of Members holding IPv6 address space increased to 65%** | 66.32% | 🟢 |
| **Measurement system for APNIC RQC service implemented** | Completed | 🟢 |
| **A method to measure whois contact accuracy and currency established** | Completed | 🟢 |
| **Attempt contact with all (2,800+) identified resource holders with potentially unused IPv4 addresses, to offer options for return or transfer of resources** | Completed | 🟢 |

## 2B    Registry Products

## Operations

### 2B.1    Internet number resource management

The APNIC Registry Management System (ARMS) was updated to support the following:

- Return of terminated resources to the available pool, for subsequent redelegation.

- Audited correction of errors in historical resource records.

- Transfer restrictions of IPv4 addresses in 103/8 to meet the requirements of prop-116.

### 2B.2    Registry product management

- Five meetings were held with NIRs at APRICOT 2020/APNIC 49 and direct online engagement has been subsequently held with all NIRs.

- Online workshops with VNNIC were held to coordinate the deployment of a new VNNIC registry system, which will improve data alignment with APNIC and improve VNNIC service delivery.

- RDAP cloud deployment was completed resulting in significant reduction in RTT and improvement in availability. Thirteen user experience (UX) interviews were held at APRICOT 2020/APNIC 49 regarding route management systems.

- Review of the RPKI Certification Practice Statement is underway, for completion in 2021. This work was shared with the RIPE NCC as part of RIR cooperation on RPKI resilience.

- RPKI resiliency improved with the adoption of Cloudflare 'spectrum' and Google Cloud for delivery of the RRDP and RSYNC service in AS0. It will be deployed in 2021 to the main RPKI service.

## Success measures – 2B

| Targets | Results | Status |
|---|---|---|
| **Successful implementation of pool service changes for historical record amendment** | Completed | 🟢 |
| **Seven product development engagements at APNIC conferences** | 16 engagements completed | 🟢 |
| **RDAP service deployed to the cloud in two regions** | Deployed to three regions | 🟢 |
| **Fifteen user experience interviews for registry products and APRICOT and IETF meetings** | 13 interviews completed | 🔴 |
| **RPKI Certification Practice Statement review completed** | 2021 scheduled completion | 🔴 |

## Investments

### 2B.3    RPKI AS0 ROA

Publication of AS0 ROA, according to prop-132.

Objectives:

- Complete proposed implementation plan, and report at APNIC 49.

- Redesign of internal (ARMS) tools and deploy services during 2020, with updates provided at APNIC 50.

Status:

- A public testbed of the AS0 ROA was deployed for APNIC 49 and the production service was deployed before APNIC 50. Ongoing service reports will be made to the APNIC Routing Security SIG at future meetings.

- Liaison continues among the RIRs where AS0 ROA proposals are under discussion.

### Additional investments:

- Funding for OpenBSD to implement RRDP in their codebase; this was completed and will be released in 2021.

- APNIC became an annual 'bronze' supporter of NLnet, supporting development of RPKI 'Krill' (CA) and 'Routinator' (RP).

- Funding for NLnet to implement Resource Tagged Attestations (RTA), which was completed and released in Q4.

## 2C        Policy development

## Operations

### 2C.1        Policy development

**APNIC 49**

- Three policy proposals were considered at the APNIC 49 Policy SIG; two did not reach consensus and were returned to the mailing list for further discussion:

    o   prop-130: Modification of transfer policies

    o   prop-133: Clarification on Sub-Assignments

- The third proposal was discussed but did not reach consensus and was withdrawn by the author:

    o   prop-134: PDP Update

- Ching-Heng Ku and Bertrand Cherrier were re-elected as Policy SIG Co-Chairs during APNIC 49.

- Following his appointment to the APNIC EC, Sumon Ahmed Sabir resigned as Policy SIG Chair, and was replaced by Bertrand Cherrier as Acting Chair.

**APNIC 50**

- Discussion of prop-130 and prop-133 at APNIC 50 was deferred by the Chairs at the request of the proposals' author.

### 2C.2        Policy implementation

- Progress on implementing prop-132 is detailed above (2B.3). An update was presented at APNIC 50.

- Updates on the prop-125 (IRT email validation) implementation were presented at APNIC 49 and APNIC 50.

### 2C.3        Policy analysis

- Impact assessments of the three policy proposals submitted for APNIC 49 were conducted by APNIC staff and sent to the Policy SIG, and then presented during the meeting.

- Staff also presented observations on the current experimental allocations policy and on consolidation trends identified in transfers of 103/8 space.

## Success measures – 2C

| Targets | Results | Status |
|---|---|---|
| **Two Policy SIG meetings held** | Completed | 🟢 |
| **Delivery of two policy analysis presentations at SIG meetings** | Completed | 🟢 |
| **High satisfaction rating from Policy Chairs in annual review of policy support** | 5/5 star rating | 🟢 |
| **Meeting agreed implementation timelines 100% of the time** | Completed | 🟢 |
| **Publishing of a 'policy proposals analysis' before each Policy SIG meeting** | Completed | 🟢 |
| **Achieve a service quality rating of 5.75 or above for Policy Development in the APNIC Survey** | Rating of 5.98 | 🟢 |

## Investments

### 2C.4    Policy documentation review

Reviewing APNIC policy documentation, including policies, guidelines and related supporting documents to determine how improvements can be made.

Objectives:

▪ Review APNIC policy documentation to improve clarity and readability, and identify any areas needing additional community input.

Status:

▪ Consultant appointed and review reports received.

▪ An overview of the report findings was presented at APNIC 50 and shared on the mailing list.

▪ A two-hour community consultation was held online on 30 October to discuss the findings of the PDP review report. An editorial review was launched on 10 December with final comments due 6 January 2021.

▪ A meeting of all SIG Chairs (Policy, Cooperation, NIR, and Routing Security) was held on 27 October to discuss recommended changes to SIG elections in the review report. Further community discussion will take place at APNIC 51.

# 3 Development

## Operations

## 3A APNIC Conferences

### 3A.1 APNIC conferences

**APRICOT 2020**

- APRICOT 2020 was held in Australia from 12 to 21 February 2020 at the Crown Promenade Melbourne. The event celebrated its 25th year.

| Conference statistics | |
|---|---|
| Total number of on-site delegates | 563 |
| Economies represented | 60 |
| APNIC Member organizations represented | 142 |
| Remote Participants – Zoom | 185 |
| Remote Participants – YouTube | 2,313 views; 29,190 minutes |
| #apricot2020 tweets | 827 from 277 users |

**Table 4: APRICOT 2020 statistics**

- The third APNIC Hackathon attracted 13 participants who worked on three projects under the 'Network Tools' theme.

- APNIC held an RPKI Deployathon at APRICOT 2020, with support from JPNIC for 40 participants. The APNIC Foundation supported four fellows from IXPs in Bhutan, Nepal, Myanmar and Fiji to attend the event.

- At the APNIC EC election,  Sumon Ahmed Sabir (4,135 votes), Kams Sze Yeung (3,524 votes), and Achie Atienza (3,067 votes) were elected for two-year terms.

- Other Internet community events held at APRICOT included a FIRST TC, the DotAsia AGM, APIX meeting, AP* Retreat, a MANRS Community Meeting, and an ISOC Social.

**APNIC 50**

- APNIC 50 was held online from 8 to 10 September 2020.

| Conference statistics | |
|---|---|
| Total number of remote attendees (Zoom) | 473 |
| Economies represented | 48 |
| APNIC Member organizations represented | 120 |
| Remote Participants – YouTube | 4,003 views; 43,567 minutes |
| #apnic50 tweets | 248 from 106 users |

**Table 5: APNIC 50 statistics**

▪ Held five coordination calls with ISPAB, as the intended host of APNIC 50, to prepare for the event and review the emerging COVID-19 situation. Venue and supplier negotiations, and all other conference arrangements progressed as normal until April when Dhaka entered a lockdown period.

▪ On 26 May, it was announced that APNIC 50 will be an online-only event. The closure of international borders and ongoing health risks meant the conference could not go ahead in its original format.

▪ The Program Committee was formed on 5 May, following a call for volunteers, and the call for papers was announced 12 May. A revised program structure to suit an online-only conference was developed and published. Keynote presenters Phillip Grasso (Google) and Alex Leung (Akamai) were confirmed.

▪ Meetings were held with ICANN and RIPE NCC event staff to discuss their experience of hosting the online-only ICANN 67 and RIPE 80 meetings.

▪ A simplified conference registration was developed and implemented in Salesforce, with web platform development and integration of multiple systems (Wordpress, Salesforce, Zoom, Hopin) to support a 100% online conference experience.

▪ Final registrations reached 1,279 with 473 attending via Zoom. The YouTube stream attracted an additional 659 live views, with total YouTube views reaching 4,003 during the conference week (including session views that were not live).

▪ Other Internet community events held at APNIC 50 included the APIX meeting, AP* Retreat, and an APNG Seminar. FIRST hosted two security sessions as part of the main conference program.

▪ An election for one available NRO NC position was held with Shubham Saran elected to serve a two-year term, beginning 1 January 2021. The APNIC EC subsequently appointed Nicole Chen to the second available NRO NC seat for a one-year term beginning 1 January 2021.

## Success measures – 3A

| Targets | Results | Status |
|---|---|---|
| **Delivery of two conferences (in Oceania and South Asia)** | Completed | 🟢 |
| **Achieve attendance of 1,000 delegates** | 1,036 attendees | 🟢 |
| **Achieve 4,000 remote conference session views** | 6,974 views | 🟢 |
| **Achieve a minimum average conference participant satisfaction survey rating of 90%** | 94.8% | 🟢 |
| **Achieve a service quality rating of 6.0 or above for APNIC Conferences in the APNIC Survey** | 6.33 | 🟢 |

## Investments

### 3A.2    Fellowships

Supporting fellows to participate in APNIC conferences and workshops, including 'returning' and 'youth' fellowships, with a continued focus on diversity.

Objectives:

- Provide support for selected community members from developing economies to attend and participate in APNIC conferences.
- Attract community sponsorship to expand number of fellowships offered.

Status:

- Due to APNIC 50 being held online, travel fellowships were not offered, but will reopen in 2021 for APNIC 52.

## 3B  Foundation support

## Investments

### 3B.1  Operational and administrative support

Providing 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 in operational support.
- Office space, equipment and online system support as required.

Objective:

- Provide support for smooth and reliable Foundation operations.

Status:

- Two seconded full-time staff continued to manage the Foundation's operations and projects. Overhead and project budgets were used to hire additional administrative support and project coordination positions.
- APNIC staff have provided:
  o  Finance support — audited financial statements; project budget implementation; APNIC cost-recovery.
  o  HR support — employing project coordinators and contractors; workplace facilities, health and safety.
  o  Communications support — production of the Foundation's 2019 Annual Report, website improvements and social media management.
- APNIC staff supported the independent audit of the Foundation's 2019 accounts, which was completed and approved at the Foundation Board's third Annual General Meeting (AGM) on 2 May.
- APNIC staff supported the creation of the Asia Pacific Internet Development Trust (APIDT), including website development, communications, financial and legal services.

### 3B.2  ISIF Asia contribution

Providing an annual contribution of AUD 100,000 to ISIF Asia for network operations research grants, and staff participation in grant selection process.

Objective:

- Encourage Internet innovation and network operations research in the Asia Pacific.

Status:

- The 2020 Network Operations Research Grants opened on 2 April, focused on the availability, reliability, and security of the Internet, with a focus on practical solutions around operational stability and security.
- Two grants of USD 30,000 were advertised, for a total of USD 60,000 in funding.

▪ Following the completion of reviews by the Selection Committee, APNIC extended its support to four projects with total funding of USD 120,000, as follows:

| Selected projects | | |
|---|---|---|
| **Open lawful Intercept for Asia Pacific** | New Zealand | University of Waikato |
| **IPv6 Deployment at Enterprises** | India | IIESoc |
| **Collaborative Honeynet Threat Sharing Platform** | Indonesia | Swiss German University |
| **Experiment and improve reinforcement learning algorithms to enhance anomalous network behaviour detection** | Australia | TeleMARS Pty Ltd |

**Table 6: ISIF Asia 2020 grant recipients**

▪ Due to logistical difficulties of COVID-19, a no-cost extension of six months was provided to all grants currently open.

# 3C      Community Engagement

▪ Due to COVID-19 and related travel restrictions, APNIC's participation at face-to-face events shifted to wholly online representation. See Appendix A for more information.

# Operations

## 3C.1    Technical community support

**NOG support**

▪ Supported volunteers from PNG to establish PNGNOG as an open, community-led initiative. Its first online gathering, PNGNOG v0.1, was held on 17 June 2020.

▪ Supported the following NOGs with sponsorship (s), presentations (p), technical support (t) and program committee (c) contributions in 2020 to date

| | South Asia | South East Asia | East Asia | Oceania |
|---|---|---|---|---|
| **Jan** | bdNOG (s) (p) (c) <br> SANOG 35 (s) (p) (c) | MMIX/MMNOG (s) (p) (c) | JANOG 45 (s) (p) | NZNOG (p) |
| **Feb** | | PhNOG (s) (p) (c) | | |
| **June** | | | | PNGNOG v0.1 (s) (p) (c) (t) <br> PacNOG (p) (c) |
| **July** | | PhNOG (p) (c) (t) | | |
| **Aug** | INNOG (s) (p) (c) | KHNOG (t) (p) | JANOG 46 (s) | |
| **Sep** | | VNIXNOG (s) (p) | HKNOG (s) (p) (t) | |
| **Oct** | bdNOG (p) <br> btNOG (s) (p) (t) | | mnNOG (p) | |
| **Dec** | LKNOG (p)(t) (c) | | | PacNOG (p) (c) |

**Table 7: NOG support**

- After NOG meeting cancellations, APNIC developed the 'Networking from Home' (NFH) series of four, half-day, online technical events serving NOG communities in four sub-regions.

- Out of 22 NOGs in the region, 21 agreed to collaborate on NFH.

- Four NFH program committees (including NOG representatives) were established, and a new NFH website and communications materials were created.

- Four events were held between June and August, with 1,219 participants from 45 economies attending, 91% from within the APNIC region. Average watch time for the events was 1hr 40mins (67% of each 2.5hr event).

**IXP support**

- Sponsored the development and operations of PeeringDB and IXPDB.

- Work continues with local communities to help establish an IXP in the Maldives and re-establish an IXP in Samoa.

**NREN support**

- Sponsorship for APAN 49 was credited to APNIC after cancellation of the event.

- APNIC staff joined the APAN 50 Technical Committee, Co-Chaired the Security WG, and provided training and technical presentations at the online event in August.

- Staff continue to support APAN as part of the Technical Committee for APAN 51 being held in February 2021.

## 3C.2    Security community support

- January
  - Sri Lanka Research and Education Network, LEARN: Video presentation, Introduction to CSIRTs
  - Pakistan Telecom Authority: Two 90-minute remote workshops on CERT establishment.

- February
  - APRICOT 2020: Organized the FIRST TC security track, in collaboration with FIRST.org and APCERT members.
  - GFCE Pacific Regional Meeting, Melbourne: Presentation on APNIC's experience working with the Pacific security community.
  - Samoa IT Association's first Security Seminar: Security workshop, presentation and sponsorship.
  - Hong Kong Police Force (HKPF): Presentation on the Community Honeynet.
  - Australian Federal Police (AFP): Meeting on Cyber Safety Pasifika program.
  - RISE-Japan 2020, Team Cymru: Confirmed sponsorship for event in November.
- March
  - Shadowserver: Sponsorship for its data centre relocation and 2020 operations.
- April
  - APNIC Academy: Presented a webinar on Physical Information Security.
  - Cambodia Cyber Security Community (Secudemy): Presented a webinar.
- May
  - FIRST.org: Moderated a session at Cyber Threat Intelligence Summit.
  - EU ATT&CK: Attended Community Workshop.
  - MYREN: Intrusion Detection and Network Security Monitoring tutorial.
  - Indonesian security community session: Spoke on CERTs/CSIRTs.
  - Solomon Islands Government Data Centre: Delivered tutorials on Elastic Stack.
- June
  - PaCSON: Delivered a Suricata tutorial.
  - Mobicom Mongolia: Presented at the IX 2020 Internet Security and Mitigation of Risk Webinar.
  - Attended the OWASP Thailand meetup, FIRST.org Special Interest Groups (SIGs) meeting, and Reversing Labs 2020.
  - PITA: Presented at the Technical and Business Forum.
- July
  - PaCSON Regional Webinar: Delivered a Suricata signature writing tutorial.
  - UCENET and INTERPOL Webinar: Presented on Linux malware threats.
  - APNIC Academy: Presented webinars on Incident Response and Threat Sharing and DNS Security (Client Perspective).
  - Attended the SANS DFIR Summit.
  - Pakistan Telecom Authority (PTA): Delivered a workshop on Incident Response and Digital Forensics.
  - GEMNET, Mongolia: Delivered workshop on security monitoring and analysis with Elastic Stack.
  - UN International Narcotics Control Board (INCB): Spoke at session while representing NRO Public Safety Coordination Group (PSCG).

- August

- APNIC Academy: Presented three webinars on DNS Ecosystem Security, Reverse DNS for IPv4 and IPv6 and Email-based Attacks and Mitigation.

- APAN 50: Delivered a tutorial on Vulnerability Assessment and Penetration Testing.

- September

  - APNIC Academy: Presented a webinar on Operation Models for IXPs.

  - APNIC 50: Organized the FIRST TC security track.

  - AusCERT 2020: Attended the conference and part of the Program Committee.

  - Women in ICT Tonga: Delivered a security workshop on open-source security tools to manage malicious activities.

  - Participated at the APCERT AGM. APNIC was approved to be a Strategic Partner.

- October

  - APNIC Academy: Presented a webinar on Routing Basics.

  - Attended the 2020 International Symposium on Cybercrime Response (ISCR).

  - Attended the INTERPOL-Europol Cybercrime Conference.

  - ITU Global CyberDrill 2020 webinar: Presented on Cyber Crisis Management Planning.

  - Cyber Safety Pasifika: Presented on Cyber Security Threat Landscape and Introduction to Cyber Investigations.

  - FIRST Regional Symposium Africa and Arab Region Plenary: Participated and moderated the Cyber Diplomacy and role of CERTs session.

  - Sri Lanka CERT Cyber Security Week: Sponsored and presented on Understanding Malicious Activities from Distributed Honeypots.

  - MNSEC 2020: Sponsored and participated in the conference.

- November

  - KrCERT/CC APISC Training 2020: Delivered a four-day workshop on Introduction to CERTs/CSIRTs.

  - Annual FIRST Conference: Participated and moderated two sessions

  - Digital Pacific Conference: Presented in the Cybersecurity: Creating a Cyber-Resilient Culture panel.

  - OIC-CERT Conference 2020: Presented on Cyber-Resilience in Management at the Is Cybersecurity COVID-19 Resistant session.

  - ITU Global CyberDrill 2020 webinar: Presented on National CSIRT, Measuring and Improving Maturity.

  - Cyber Safety Pasifika: Presented on Information Security Awareness to Palau Police.

- December

  - BTCIRT Community Workshop: Delivered a three-day workshop on incident response security analysis tools.

  - CNCERT International Partnership in Emergency Response Conference: Delivered a keynote on Cooperation Experience on Emergency Response in Cybersecurity in Asia Pacific region.

  - CSIRT.id Virtual Seminar: Presented in a panel on cyber resilience.

## 3C.3     Internet organization cooperation

- February

  - Hosted meetings with new AFRINIC CEO, Eddy Kayihura, in Brisbane.

- March
  - o Participated in ICANN 67.
  - o IETF 107: Participated in SIDROPS, REGEXT and DNSOP sessions.
- May
  - o Participated in LACNIC 33 and RIPE 80.
  - o Participated in NRO EC virtual retreat.
- June
  - o Participated in the virtual Policy Forum at ICANN 68.
  - o Participated in the I-star organizations' leadership meeting.
  - o Participated in the NRO Resource Services Coordination Group (RSCG) and Legal Team joint meeting.
  - o Participated in AFRINIC 'Internet Infrastructure Support in Times of Crisis' webinar.
- July
  - o Participated in ARIN 45.
  - o IETF 108: Participated in SIDROPS, REGEXT, ANRW, IABopen, GROW and DNSOP sessions.
- September
  - o Participated in APTLD 78. Paul Wilson spoke at the opening plenary.
  - o Participated in AFRINIC 32.
- October
  - o Participated in the ICANN 69 virtual AGM.
  - o Attended a coordination call for Internet organizations to prepare for ITU WTSA-21.
  - o Participated in LACNIC 34, ARIN 46, and RIPE 81.
- November
  - o IETF 109: SIDROPS, REGEXT, JMAP, xBGP, INTAREA, OPSAWG/OPSAREA.
  - o Delivered Crisis Communications training to 10 AFRINIC staff.
- Between January and December: Attended 11 regular NRO EC, 15 Internet Technical Collaboration Group (ITCG), one Engineering Coordination Group (ECG), one Resource Services Coordination Group (RSCG), four Communication Coordination Group (CCG), and six NRO Public Safety Coordination Group (PSCG) calls.

## 3C.4    Internet governance participation

- February
  - o APNIC staff authored the chapter "Putting the technical community back into cyber (policy)" of the *Routledge Handbook of International Cybersecurity*. The book was published in February.
  - o APrIGF: Submitted three workshop proposals.
- April
  - o IGF 2020: Submitted a workshop proposal entitled 'Flattening the curve of irresponsible state behaviour online'.
  - o Joyce Chen was appointed as a member of the APrIGF Program Committee.
- May

- o Pablo Hinojosa was appointed as a member of the ITCG nomination committee to recommend technical community representatives for the IGF Multistakeholder Advisory Group (MAG).

- ▪ June
  - o Participated in the IGF 2nd Open Consultations and MAG meeting.
  - o Participated in a series of dialogues organized by the UN Secretary General on a Roadmap for Digital Cooperation.
  - o Participated in the Hong Kong IGF 2020.
  - o Began participating in ongoing preparation for the WSIS Forum 2020 September 2020 event.

- ▪ July
  - o Broadband India Forum: Paul Wilson gave a keynote address.
  - o China IGF 2020: Paul Wilson delivered a welcome message.
  - o Participated in RightsCon Online 2020.
  - o EU Cyber Direct's 'Closing the Gap' Conference: Participated in sessions about Knowledge, Gender and Diversity gaps, and International Law and Accountability.
  - o Fair Tech Forum (Access Partnership): Participated at a panel entitled 'Is APAC Cyberspace Secure'.

- ▪ August
  - o PKSIG 2020: Paul Wilson gave the keynote address.

- ▪ September
  - o Participated in the WSIS Forum 2020 main event.
  - o Participated in South Eastern European Dialogue on Internet Governance (SEEDIG) 6.
  - o APrIGF 2020: Participated and organized three sessions. Joyce Chen was appointed Co-Chair of the APrIGF Drafting Committee to produce the APrIGF Synthesis Document.
  - o BDSIG 2020: Participated at and sponsored.

- ▪ October
  - o NetThing 2020: Sponsored, participated, and provided technical support.
  - o NetHui 2020: Participated at and sponsored.
  - o Participated in IGF MAG Chair dialogue web series in the lead up to IGF 2020.
  - o Attended the Geneva Dialogue on Responsible Behaviour in Cyberspace.
  - o inSIG 2020: Presented and moderated at two sessions.
  - o Pacific Women in ICT Meetup: Spoke at an IGF introduction session.
  - o Youth IGF India: Presented on how the Internet works.

- ▪ November
  - o IGF 2020: Presented in main sessions on Inclusion and Environment, one IXP workshop, and two forums on cybersecurity and trust.
  - o Joyce Chen was nominated to the IGF 2021 MAG after Sylvia Cadena finished her term.
  - o Joyce Chen was elected to the IGF Support Association (IGFSA) Executive Committee.
  - o bdIGF 2020: Sponsored. Srinivas Chendi delivered a keynote presentation on how the Internet works at the Youth IGF session.

- o TWIGF: Joyce Chen gave welcoming remarks and Paul Wilson presented on Critical Internet Resources.

- o Beyond APIGA: Participated in the alumni catch-up event.

- o APSIG 2020: Joyce Chen moderated a session of former IGF fellows.

- o Digital Inclusion Roundtable/Roadmap for Digital Cooperation: Contributed to the discussion for the draft action plan.

- ▪ December

  - o IGF 2021 MAG and IGFSA Executive Committee calls and onboarding for Joyce Chen.

- ▪ Between January and December: Participated in preparatory calls for APrIGF, 10 calls for NetThing (Australia), discussions for TWIGF, and a national IGF initiative in China (launched in May).

- ▪ The APNIC Foundation provided APNIC significant capacity and support to the IGF MAG and APrIGF MSG processes, including workshop proposals and panel deliveries in 2020.

## 3C.5    Government engagement

- ▪ January

  - o Participated in a public consultation about responsible state behaviour in cyberspace conducted by the Australian government.

- ▪ February

  - o Participated in the 2020 Global Cybersecurity Capacity Building Conference and the GFCE Pacific Regional Meeting in Melbourne.

  - o Australian Federal Police (AFP): Discussed continued training for Law Enforcement Agencies (LEAs) in the Pacific region as part of the Cyber Safety Pasifika program.

- ▪ March

  - o Met with the ITU to discuss the re-establishment of an IXP in Samoa (discussions continued in July).

- ▪ April

  - o Joyce Chen joined APNIC as Senior Advisor — Strategic Engagement.

  - o ITU:

    - ‐ Met with the new Director of ITU's Regional Office for Asia and the Pacific, Ms Atsuko Okuda, regarding capacity-building on IPv6 and Internet governance.

    - ‐ Submitted a membership application to ITU's Telecommunication Standardization Sector (ITU-T), subject to a fee exemption. The membership will allow APNIC to participate in the World Telecommunication Standardization Assembly (WTSA).

    - ‐ Monitored progress of Global Cybersecurity Agenda (GCA) and the World Telecommunication/ICT Policy Forum (WTPF).

  - o Australia: Presented at a webinar on the UN Open Ended Working Group (OEWG) and the UN Governmental Group of Experts (GGE) processes.

  - o Asia Pacific Telecommunity (APT): discussed capacity-building partnerships and a possible expert mission on IPv6 for Sri Lanka.

- ▪ May

  - o APT:

    - ‐ Participated in the second APT regional preparatory meeting for WTSA 2020.

- - Participated in regional preparations for ITU's 2021 World Telecommunication Development Conference (WTDC).
  - o Global Forum on Cyber Expertise (GFCE): Spoke at virtual meetings commemorating GFCE's fifth anniversary.
- June
  - o ITU: Monitored progress in the Telecommunication Development Advisory Group (TDAG) meeting, ITU Virtual Consultation of the Council, and virtual interim meeting of the ITU APT WTSA20 Working Group 3.
  - o MPTC, Cambodia: Met with the Secretary of State from the Ministry of Posts and Telecommunications (MPTC) to discuss number resources and technical training.
  - o UN Institute for Disarmament Research (UNIDIR): Spoke at the 'Implementing Cyber Norms: National Experiences and Emerging Good Practices' session.
- July
  - o UN International Narcotics Control Board (INCB): Spoke at session while representing NRO Public Safety Coordination Group (PSCG).
  - o ITU:
    - - Monitored progress in the ITU APT WTSA20-3 Preparatory Meeting, ITU Study Groups 11 and 13, and the WTDC 21-1 Preparatory meeting.
    - - Participated in the ITU Global Symposium for Regulators 2020 (GSR) (ongoing), World Summit on the Information Society (WSIS) Forum (ongoing), and UN High Level Political Forum (HLPF) 2020.
- August
  - o APT: Participated in the 17th APT Telecommunication/ICT Development Forum (ADF-17); monitored progress in the Virtual Interim Meeting of Working Groups of the APT WTSA-20.
- September
  - o ITU:
    - - Participated in the Global Symposium for Regulators 2020 (GSR-20).
    - - Global Cyberdrill 2020: Paul Wilson and Adli Wahid spoke in several sessions.
    - - Monitored progress in the Telecommunication Standardization Advisory Group (TSAG) virtual meeting.
  - o Attended the UN General Debate of the 75th Session (UN 75th General Assembly).
- October
  - o Participated in APECTEL 61 and APEC Security and Prosperity Working Group (SPSG) virtual meeting.
  - o APT: Monitored progress in the APT Virtual Interim Meeting for Working Groups; participated in the 20th APT Policy and Regulatory Forum (PRF-20).
- November
  - o ITU:
    - - Adli Wahid and Duncan Macintosh (APNIC Foundation) spoke at the ITU RDF Regional Development Forum for Asia and the Pacific 2020.
    - - Monitored discussions at the ITU 2020 Council 2nd Consultation.
    - - Coordination and planning with the ITU Regional Office for Asia and the Pacific on 2021 collaboration.
  - o APT:

- Monitored progress in the APT WTSA 20-4 preparatory meeting.

- Coordination and planning with the APT Secretariat on 2021 collaboration.

o GFCE Annual Meeting 2020: Participated in the ICT and cyber capacity priorities in the Pacific session.

o Marshall Center iPCSS: Pablo Hinojosa presented at International Program on Cybersecurity Studies on 'Internet Governance and IPv6 deployment'.

▪ December

o Monitored discussions at the ITU-T Study Groups 11 & 13.

o Joyce Chen attended a five-day APT Training on ICT Policy & Regulation.

## Success measures – 3C

| Targets | Results | Status |
|---|---|---|
| **Sponsor or participate in 30 technical community events including NOGs, Peering Forums and Research & Education community events** | 34 events | 🟢 |
| **Facilitate and support two new/revived NOGs** | One new NOG | 🔴 |
| **Sponsor or participate in 10 security community events** | 23 security events | 🟢 |
| **Support targeted development of three new/existing CERTs/CSIRTs** | 5 CERTs/CSIRTs | 🟢 |
| **Ensure APNIC participation in each of the RIR meetings** | Completed | 🟢 |
| **Provide APrIGF sponsorship and participate in APrIGF and IGF with workshop proposals, MSG/MAG participation, and speaking roles** | Completed | 🟢 |
| **Participate in at least three national Internet governance initiatives** | 7 engagements | 🟢 |
| **Provide sponsorship/speaker support to at least two schools of Internet governance** | 4 engagements | 🟢 |
| **At least 12 engagements with governments and intergovernmental organizations, including capacity-building partnerships** | 37 engagements | 🟢 |
| **At least six engagements with the Public Safety community** | 11 engagements | 🟢 |

## 3D    Community Participation

## Operations

### 3D.1    Community-led processes

- Promotion of APRICOT 2020 and APNIC 50 included 10 email bulletins; social media promotion via Facebook, Twitter and LinkedIn; and blog posts. The APNIC Blog's 'AUSeries', a week of posts profiling Australian Internet identities, was also published in the lead up to APRICOT 2020.

- Summaries of policies discussed at APNIC 49, and the results, were published in eight languages. Email invitations to the Policy SIG meetings at APNIC 49 and 50 were sent to all Members and a blog post preview was published.

- At APNIC 49, 242 people participated in SIG meetings, and 391 joined online. At APNIC 50, 396 people participated in SIG meetings online. An additional 25 people joined the Policy SIG Chairs' online community consultation for the PDP review report in October.

- The scheduled IANA Numbering Services Review Committee (IANA RC) election for 2020 was deferred by the EC and the term of the current community-elected member, Bertrand Cherrier (Micro Logic Systems, New Caledonia), extended until 31 December 2021.

- Satoru Tsurumaki was appointed by the EC to the IANA RC for a two-year term from 1 January 2021 to 31 December 2022.

**Cooperation SIG**

- The theme of the Cooperation SIG at APNIC 49 was 'Internet and Jurisdiction', with discussions on transnational legal frameworks, cybernorms and technical cybersecurity challenges.

- Bikram Shrestha was re-elected as Co-Chair at APNIC 49.

- The theme of the Cooperation SIG at APNIC 50 was 'Lawful Intercept' (LI), with discussions on interception of communications by LEAs including a perspective from an LI vendor.

**Routing Security SIG**

- The first meeting of the new Routing Security SIG was held at APNIC 49, and the SIG's charter agreed. Aftab Siddiqui was elected as Chair.

- There were four presentations at the Routing Security SIG at APNIC 50, including updates from the IETF SIDROPS Working Group and an AS0 implementation report from APNIC.

**NIR SIG**

- Six NIRs presented at the NIR SIG at APNIC 49 and five presented at APNIC 50.

## 3D.2    Online participation

- Social media and blog posts on APNIC Academy's Virtual Training Program helped attract 2,548 attendees to 18 webinars.

- 687 new APNIC Academy users registered as a result of APNIC's Facebook posts (389), the APNIC Blog (176), and other APNIC social media activity (122 – Twitter and LinkedIn).

- Three live, 45-minute 'APNIC Academy Socials' were hosted on Facebook with guests from NTT, Reliance Jio, Virgin Media, Google, ACT Fibrenet, ISOC and APNIC technical staff. The video posts reached 120,720 people for a total of 22,952 minutes viewed, and 1,614 post engagements.

- Promotion of Networking from Home (NFH) attracted 146 NFH email subscribers (in addition to the attendee statistics reported in 3C.1)

- The NFH project was a finalist in three Asia Pacific SABRE Award categories, winning a Certificate of Excellence for branding and design.

- Visitor numbers to apnic.net increased since April, while time on site decreased over the same period. The top five visitor economies were the United States, India, China, Japan and Australia. Twenty-six percent of visitors used a mobile device to access apnic.net.

| | Total Sessions | Unique Users | Pages per session | Time on site |
|---|---|---|---|---|
| **January** | 81,052 | 56,436 | 1.78 | 1:29 |
| **February** | 82,294 | 55,357 | 1.76 | 1:34 |
| **March** | 81,861 | 55,306 | 1.72 | 1:25 |
| **April** | 89,096 | 60,609 | 1.70 | 1:24 |
| **May** | 90,925 | 63,678 | 1.69 | 1:20 |
| **June** | 87,433 | 60,465 | 1.71 | 1:20 |
| **July** | 89,502 | 60,351 | 1.73 | 1:20 |
| **August** | 90,159 | 59,479 | 1.80 | 1:21 |
| **September** | 100,702 | 67,881 | 1.78 | 1:20 |
| **October** | 104,433 | 72,939 | 1.75 | 1:14 |
| **November** | 98,341 | 68,497 | 1.71 | 1:12 |
| **December** | 96,194 | 66,957 | 1.71 | 1:14 |
| **Total** | 1,091,992 | 747,955 | 1.74 | 1:21 |

**Table 8: 2020 apnic.net website visits**
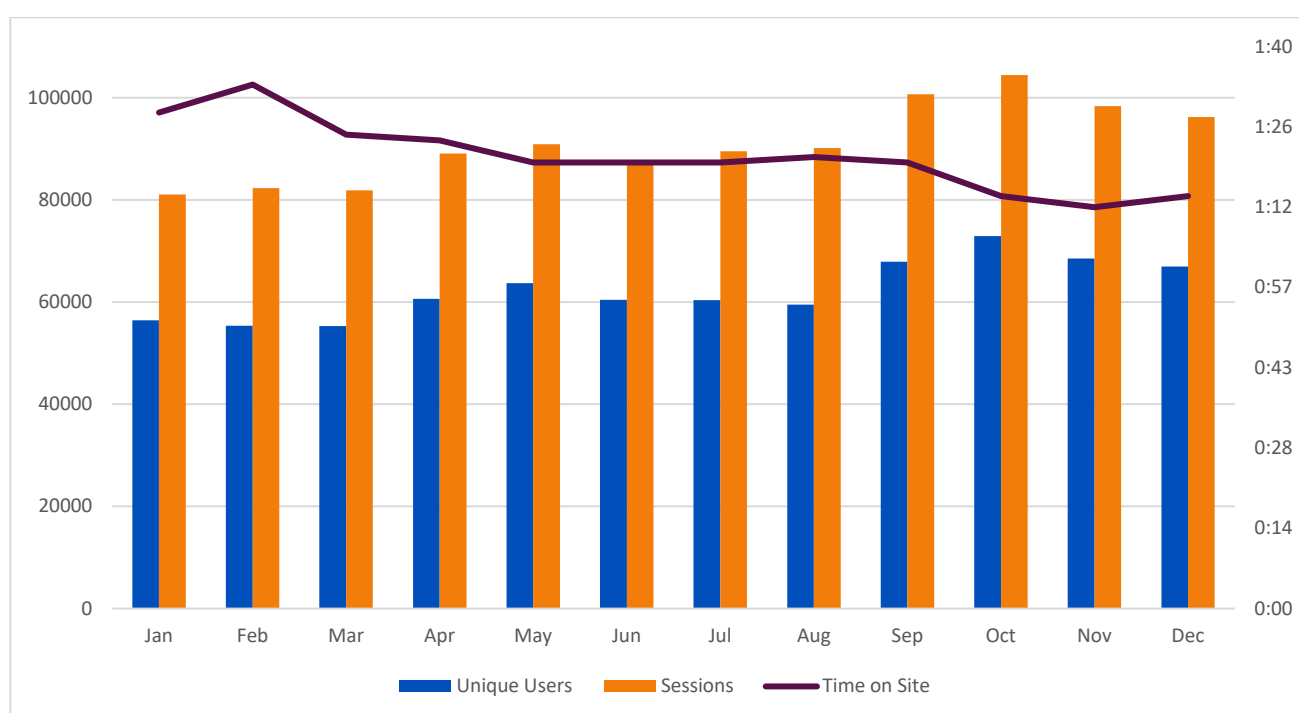


**Figure 15: apnic.net website visits**

| Economy | Total Sessions | Unique Users |
|---|---|---|
| India | 130,650 | 85,450 |
| United States | 126,801 | 101,080 |
| China | 104,630 | 64,459 |
| Australia | 74,052 | 18,427 |
| Hong Kong | 72,918 | 41,032 |
| Japan | 65,794 | 32,748 |
| Bangladesh | 65,582 | 46,788 |
| Indonesia | 38,978 | 22,508 |
| Philippines | 29,421 | 18,106 |
| Brazil | 23,541 | 14,271 |

**Table 9: Top 10 economies - apnic.net website sessions and visitors**

| | | 2019 Mthly Avg | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|
| **Facebook** | Reach | 189,613 | 78,781 | 61,064 | 97,002 | 729,780 | 349,168 | 445,218 |
| | Likes | N/A | 29,307 | 29,487 | 29,583 | 29,686 | 29,861 | 30,022 |
| **Twitter** | Followers | N/A | 10,975 | 11,128 | 11,205 | 11,332 | 11,488 | 11,648 |
| | Engage | 3,891 | 4,165 | 6,770 | 3,824 | 5,897 | 6,364 | 7,424 |
| **YouTube** | Views | 3,296 | 2,430 | 7,433 | 3,561 | 3,508 | 3,077 | 3,779 |
| | Hours | 375.21 | 256.68 | 1,037.4 | 354.79 | 308.71 | 311.12 | 387.1 |
| **Slideshare** | Views | 12,975 | 12,633 | 14,710 | 13,429 | 13,479 | 12,539 | 12,119 |
| **LinkedIn** | Reach | 4,131 | 7,734 | 11,488 | 15,803 | 7,997 | 8,206 | 8,403 |
| | Followers | N/A | 4,354 | 4,454 | 4,545 | 4,632 | 4,730 | 4,825 |

| | | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|---|---|---|---|---|---|---|---|---|
| **Facebook** | Reach | 208,839 | 172,445 | 54,496 | 673,685 | 299,754 | 216,334 | 3,386,566 |
| | Likes | 30,030 | 30,151 | 30,192 | 30,235 | 30,265 | 30,365 | 30,365 |
| **Twitter** | Followers | 11,738 | 11,870 | 11,964 | 12,070 | 12,163 | 12,215 | 12,215 |
| | Engage | 5,212 | 5,564 | 5,078 | 4,767 | 4,981 | 3,703 | 63,749 |
| **YouTube** | Views | 2,612 | 2,493 | 7,662 | 2,386 | 2,170 | 2,087 | 43,198 |
| | Hours | 241.8 | 245.3 | 1,035 | 199.8 | 167.1 | 159.8 | 4,705.3 |
| **Slideshare** | Views | 11,610 | 10,882 | 13,770 | 15,421 | 13,997 | 12,809 | 157,398 |
| **LinkedIn** | Reach | 18,039 | 14,585 | 13,962 | 10,370 | 15,016 | 10,234 | 141,837 |
| | Followers | 4,930 | 5,017 | 5,149 | 5,225 | 5,335 | 5,411 | 5,411 |

**Table 10: Social Media reach**

### 3D.3    Encouraging newcomers

- NextGen BoFs were held at APRICOT 2020 and APNIC 50 (following the first NextGen BoF at APNIC 48).  While attendance was disappointing at APRICOT 2020, the NextGen BoF at APNIC 50 was a success, with 63 attendees hearing career advice from the heads of the five RIRs.

- Sixty percent of APRICOT attendees (336) and 36% of APNIC 50 attendees (169) were newcomers.

- Achieved 236 new blog subscribers, 1,333 new Twitter followers, 1,125 new LinkedIn followers, and 1,124 new people liked APNIC's Facebook page.

## Success measures – 3D

| Targets | Results | Status |
|---|---|---|
| **Attract 300 in-person participants at SIG sessions** | 242 participants | 🔴 |
| **Achieve 800 online SIG participants** | 812 participants | 🟢 |
| **Reach 1,250 subscribers to SIG mailing lists** | 1,268 subscribers | 🟢 |
| **Reach 2.4 million blog views (all time)** | 2,638,935 views | 🟢 |
| **Achieve 4,000 remote conference session views** | 6,974 views | 🟢 |
| **Achieve attendance of 1,000 conference delegates** | 1,036 attendees | 🟢 |
| **Reach 11,900 Twitter followers** | 12,215 followers | 🟢 |
| **Achieve Facebook reach of 2 million** | 3,386,566 reach | 🟢 |
| **Attract 350 newcomers to APNIC conferences** | 505 newcomers | 🟢 |
| **Attract 75 new blog email subscribers** | 236 new subscribers | 🟢 |

## Investments

### 3D.4    Community diversity

Monitoring and improving diversity (including gender, age, language and dis/abilities) of community participation in APNIC events and activities.

Objectives:

- 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.

Status:

- Source data was consolidated to produce a single dataset for reporting.

- New demographic questions were included in the 2020 APNIC Survey.

- Diversity statistics were published on a new Community Demographics page on apnic.net.

- A review of apnic.net translation opportunities was completed.

# 3E        APNIC Academy

## Operations

### 3E.1        Curriculum development

▪ Reviewed current training materials, standardized outlines for existing courses, and identified new modules to enhance current courses (based on workshop feedback and industry trends).

▪ Work started in May on two new courses — Network Management and Monitoring, and Network Automation (with industry subject matter experts), both due for completion in January 2021.

▪ Two new labs developed for instructor-led training: 464XLAT and BGP Operations and Security Best Practices.

▪ One new lab updated for instructor-led training: IPsec.

▪ Redevelopment of the online Routing Basics course was completed.

▪ New routing labs were added to the APNIC Academy in OSPF, IS-IS, BGP, IPSec and Segment Routing.

▪ Course outlines were revised and migrated to the APNIC Academy.

### 3E.2        Face-to-Face training

▪ Due to COVID-19, the training delivery team was only able to provide face-to-face training in January and February.

| January-February | Face-to-Face |
|---|---|
| **Courses (by topic)** | 10 courses/workshops |
| **Locations** | 7 cities / 6 economies |
| **Training Days** | 25 |
| **Students** | 244 |
| **Student-days/hours** | 658 student-days/4,096 student-hours |

**Table 11: Face-to-Face training**

### 3E.3        Online training

▪ Training delivery focused on live online training while COVID-19 restrictions remain in place.

▪ A program of live online tutorials, in three different times zones (East Asia/South East Asia, South Asia, Oceania) was established, focusing on RPKI, Network Security, DNS/DNSSEC, Advanced Routing (with Multihoming and ROV), IPv6 Deployment, and Segment Routing.

▪ In addition to the tutorial series, APNIC delivered live online training sessions at the following events:

  o PacNOG 26 and 27

  o PhNOG Virtual 2020

  o Pakistan Internet eXchange (through the Pakistan Telecommunications Authority)

  o The Institute of Electronics Engineers of the Philippines

  o Tencent (China)

  o APAN 50

  o Maxis Broadband, Malaysia

- o   Focus Infocom, Maldives

- o   Ministry of Transport and Communications, Timor-Leste (for local ISPs)

- o   Authority for Info-Communications Technology Industry (AITI), Brunei (for local ISPs)

- o   bdNOG 12

- o   Women in ICT Tonga

- o   PACtraining: Solomon Islands, Samoa, Tonga and Vanuatu

- o   MMIX/MMNOG

- o   LKNOG 4

- The APNIC Academy reached 11,610 registered users, delivered 7,791 hours of online course and virtual lab training, and issued 2,519 certificates.

- In addition, the APNIC Academy hosted 18 live webinars, attracting 2,548 attendees, and guest speakers from the ISOC, AusCERT, Internet System Consortium (ISC) and ICANN.

| March to December | APNIC Live Online (Instructor-Led) Training |
|---|---|
| **Courses (by topic)** | 46 courses |
| **Training days** | Equivalent to 67 full training days (delivered over 107 days) |
| **Students** | 2,434 |
| **Student-days/hours** | 1,915 student-days/15,320 student-hours |

**Table 12: Live online training delivery**

| January to December | APNIC Academy |
|---|---|
| **Courses (by topic)** | 7 courses / 2,519 certs / 2,817 hours completed |
| **Virtual Labs** | 4,946 labs launched; 4,974 hours completed |
| **Webinars** | 18 webinars / 2,548 attendees |
| **Students** | 8,216 active users from 11,610 users (cumulative) |
| **Locations** | 41 economies in APNIC region |
| **YouTube Training Channel** | 25,482 views / 399 new subscribers |

**Table 13: APNIC Academy training**

## 3E.4    Community Trainers

- Completed a review of the contracted Community Trainers (CTs) based on feedback from participants and lead trainers. Contracts were renewed for 19 CTs in May.

- Recruited five new CTs from Fiji, Indonesia, India and Nepal.

- Engaged five CTs at four face-face events (two at bdNOG 11, one at MMNOG, one at SANOG 35) in January and February, plus one in China in November.

- Engaged five CTs at four online events in August and September (three for the Advanced Routing tutorial series and one for the Internet Routing online workshop for Timor-Leste), plus one for China in November.

- Provided additional CT support through improved onboarding, presentation skills development, and access to collaboration tools and additional content.

## 3E.5    Technical assistance

- IXPs
  - Fiji IX: Helped design the IX upgrade (route server, IXP Manager, redundant switches, looking glass and IX website). The work will be carried over to 2021.
  - VNIX: Helped develop a route server filtering policy template.
  - HKIX: Helped validate ROV deployment plan and configurations.
  - MyIX: Helped plan ROV deployment.
  - Maldives IX: Operating principles and high-level design shared.
  - Delivered an ISP start-up webinar for Timor-Leste in line with its IX development plan.

- IPv6
  - Maldives (Focus Infocom):
    - Completed high-level address plan based on current services and network design.
    - Agreed a network assessment plan is in progress.

- Routing Security
  - Ncell (Nepal)
    - Validated their MANRS compliance plan.
    - Discussed a redesign of their network as their current setup had no clear logical separation between the two ASNs (mix of similar services and users in both):
      – Broken aggregation due to BGP optimizer (Noction IRP).
      – How to redo route/route6 and ROAs based on the above redesign.
  - TCC (Tonga)
    - Helped review their RPKI implementation plan.
    - Validator suggestions (at least two), ROA creation guide.
    - Policy config to prefer V>N>.
    - Monitoring of RPKI validators, as well as BGP prefix use/misuse.
  - Maxis BB (Malaysia)
    - Overview of RPKI (followed by a targeted tutorial just for them).
    - Creating ROAs to match their BGP announcements.
    - Helping create ROAs for their downstreams.
  - UNN (Brunei)
    - Helped review their network merger plan/design.
    - Helped with transit and access ASN design.
    - Creation of IRR objects and ROAs based on the above design suggestions.

- Use of RPSL tools to aut-generate filters from IRR objects.

- o Exetel (Australia)

    - Validated their ROV implementation plan:

        – ROA creation to match their BGP announcements.

        – Getting their downstreams to create the ROAs correctly.

        – Reviewing different validators

            ▪ Suggested at least 2xRTRs (RPs)

            ▪ SSH as a secure RTR transport

            ▪ Demonstrated how to configure exceptions on RPs for certain routes

        – Potential issues with propagating RPKI states to iBGP nodes (suggested enabling RTR on all eBGP routers at different locations in Australia independently).

- o DoD (Australia)

    - Analysed their IPv6 prefix hijack by AS397294 on 21-22 April.

    - Pointed out the need for DoD to:

        – Nominate one ASN as the transit AS and the remaining four can be stub/access ASNs behind the transit.

        – Create route/route6 objects for their address space to correctly reflect their routing intent.

        – Create IRR objects in an authoritative database like APNIC's whois (instead of doing them on RADB or other non-auth IRRdb).

        – Create corresponding ROAs for those routes in BGP, as well as creating AS0 ROAs for the bulk of address space currently not routed.

        – Use of BGPalerter to monitor misuse of their address space in BGP.

## 3E.6    RPKI awareness and deployment support

▪ In partnership with JPNIC, APNIC hosted the RPKI Deployathon at APRICOT 2020, with 40 participants.

▪ Current ongoing activities include:

- o ROA outreach work in Australia, Maldives, Mongolia, Myanmar, and Pakistan.

- o ROA/ROV deployment support in Australia, Mongolia, Tonga, and Sri Lanka.

- o Mongolia achieved 100% ROA coverage in October.

▪ APNIC delivered 18 RPKI-focused training events (three face-to-face and 15 online tutorials).

▪ Published 40 RPKI-tagged posts on the APNIC Blog.

▪ RPKI adoption increased in 2020, as Members with ROAs grew from 27.2% to 50.67%.
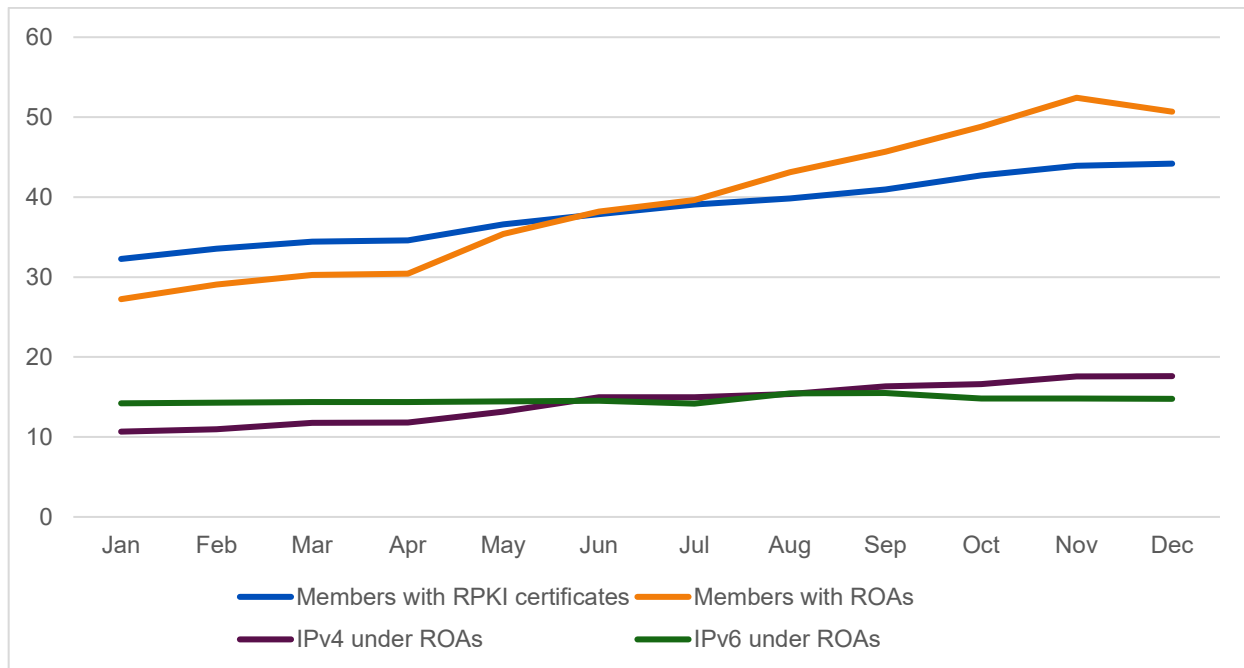
**Figure 16: RPKI usage**

### 3E.7    IPv6 awareness and deployment support

- APNIC delivered eleven IPv6 deployment focused training sessions:

    o   Three face-to-face at bdNOG 11, SANOG 35, and PhNOG 2020 (Feb).

    o   One face-to-face in China (November).

    o    Seven online tutorials

        ⁃   Three as sub-regional series

        ⁃   One each for KHNOG (November), China (November), Brunei (October), and Maldives (August)

- Published 42 IPv6-tagged posts on the APNIC Blog.

- Published new IPv6 deployment success stories on PLDT (Philippines), 3BB (Thailand), Mytel (Myanmar) and Worldlink (Nepal), bringing the total number of IPv6 deployment stories on the APNIC website to 39.

## Success measures – 3E

| Targets | Results | Status |
|---|---|---|
| **Add Bengali language to APNIC Academy online platform** | Completed | 🟢 |
| **Convert three old online training courses to new video-based format** | 2 completed | 🔴 |
| **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** | 6 virtual labs<br>3 instructor-led labs | 🟢 |
| **Conduct 60+ face-to-face training sessions equitably across the four sub-regions** | 10 F2F training sessions<br>46 live online training sessions<br>18 live webinars | 🟢 |
| **Recruit and maintain a pool of 25 qualified Community Trainers from four sub-regions** | 24 Community Trainers | 🔴 |
| **Start conducting structured technical assistance over the APNIC Academy online platform** | 2021 scheduled launch | 🔴 |
| **Publish four IPv6 deployment case studies** | 4 published | 🟢 |

## Investments

### 3E.8    APNIC Academy development

Developing the APNIC Academy as a cohesive learning environment integrating blended face-to-face and online training services.

Objectives:

- Integrate various training administration systems (for example, registration, calendar and training wiki) into APNIC Academy.

- Establish an online technical assistance platform that connect 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.


Status:

- Academy Product Team established, including recruitment of a new Senior Full Stack Developer.

- New course catalogue and learning pathways guide added to the APNIC Academy.

- Course outline pages migrated from training.apnic.net to the APNIC Academy.

- New registration system to support the APNIC Foundation's PACtraining Project was built (including Keycloak integration for improved user demographic reporting).

- Bengali translation of the Academy website and courses was completed for a launch in 2021.

- Technical design work for the technical assistance platform was completed, with the platform build to commence in early 2021.

# 3F    Internet Infrastructure Deployment

## Operations

### 3F.1    Internet infrastructure deployment

- Donated used switches to Fiji IXP as part of its upgrade, to Lahore IX to support its set up, and to BKNIX in Chiang Mai.

- Donated a used router to Bhutan IX (for use as an IX transit router).

- Provided advice on IXP design and operation to the Maldives IXP through MoCST, Maldives.

- Helped develop a route server filtering policy template for VNIX.

- Helped with technical validation of ROV deployment at MyIX and HKIX.

- Assisted with K-root deployment in China with CAICT.

- Upgraded J and K-root instances in Brisbane.

- Deployed K-root at VNIX (Ho Chi Minh City) and M-root in Brisbane. M-root deployment at VNIX (Hanoi) is in progress.

- The RIPE Atlas Anchor in Brisbane was upgraded to a VM version and one in Tokyo is being added.

### 3F.2    Honeynet deployment

- The backend systems serving the Community Honeynet were upgraded and enhanced.

- Provided feeds and additional insights for DASH and DASH users.

- New partners from Hong Kong, Bangladesh, Malaysia, Indonesia and Japan joined the project.

- Multiple community security engagements and APNIC Academy webinars were based on observations from this honeynet data.

## Success measures – 3F

| Targets | Results | Status |
|---|---|---|
| **Support deployment of at least two new or upgraded IXPs** | 3 IXPs | 🟢 |
| **Support deployment of at least six new rootserver instances at IXPs or other networks** | 3 completed | 🔴 |
| **Support at least six IXPs to deploy RPKI on their route servers** | 2 IXPs | 🔴 |
| **Deploy at least four RIPE Atlas anchors at various networks** | 1 deployment | 🔴 |
| **Establish five new Community Honeynet partners** | 5 new partners | 🟢 |

## Investments

### 3F.3      M-root anycast instance deployment

Establishing a new partnership with the WIDE Project and JPRS to support anycast deployment of M-root.

Objectives:

▪ Help streamline M-root deployment and operations by improving process and automation.

Status:

▪ MoU signed. First deployment in Brisbane completed.

▪ Two M-root instances in progress in the Philippines and Guam.

### 3F.4      Security threat sharing platform

Extending the APNIC Community Honeynet as a platform for APNIC Members to share cybersecurity threat information so they can take necessary action.

Objectives:

▪ 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 and relevant stakeholders.

Status:

▪ The platform was deployed and integrates threat data from other security communities.

▪ Presented about the platform at the APNIC Academy Webinar session in July.

▪ Planning to engage with the community to create awareness and encourage use of the platform.

# 4    Information

## Operations

## 4A    Information Products

### 4A.1    APNIC Blog

|  | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** | **YTD** | **All time** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Views** | 50,420 | 51,231 | 58,448 | 56,343 | 68,882 | 67,795 | 61,627 | 103,908 | 67,078 | 66,744 | 67,681 | 57,181 | 777,338 | 2,638,935 |
| **Posts** | 35 | 28 | 30 | 26 | 25 | 27 | 39 | 32 | 31 | 39 | 39 | 44 | 395 | 2,400 |

**Table 14: APNIC Blog activity**
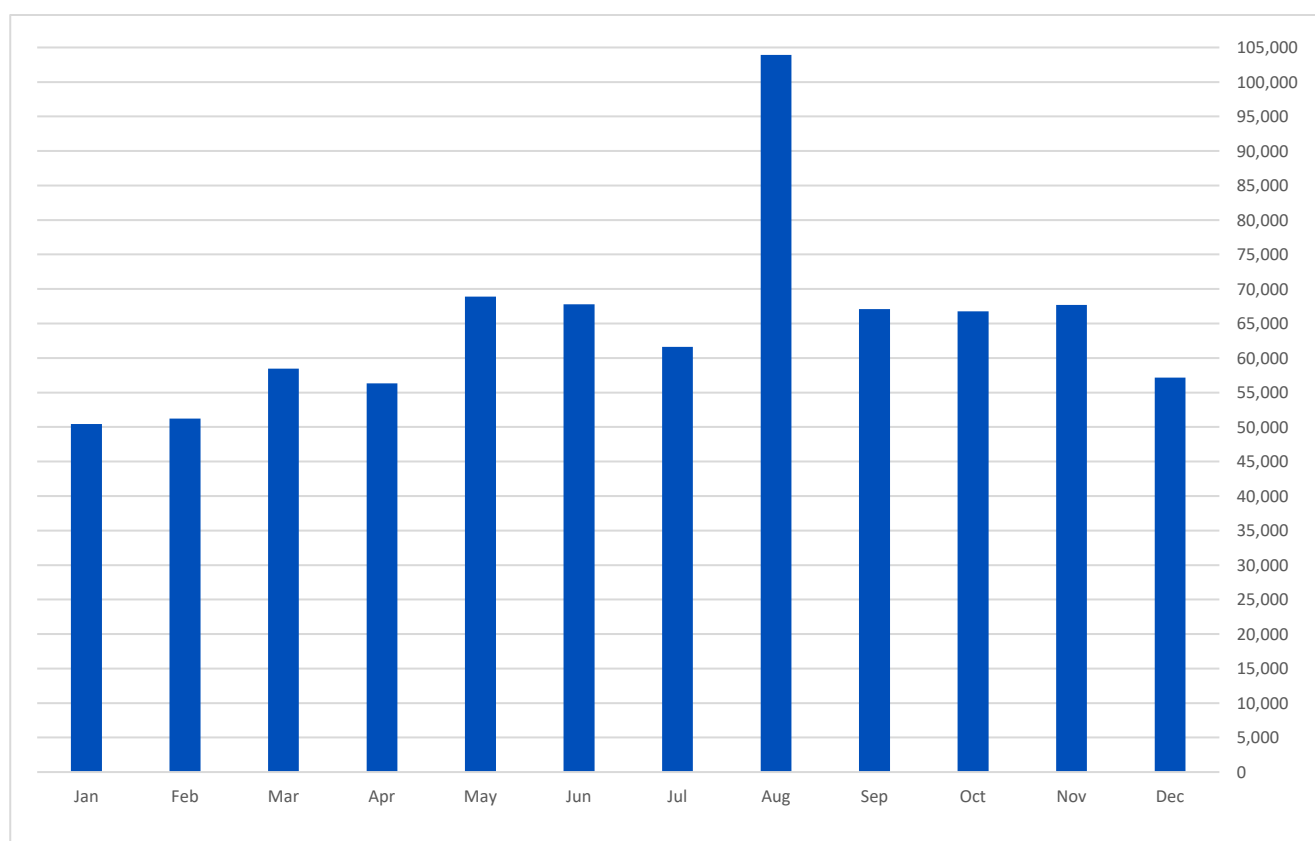


**Figure 17: APNIC Blog views**
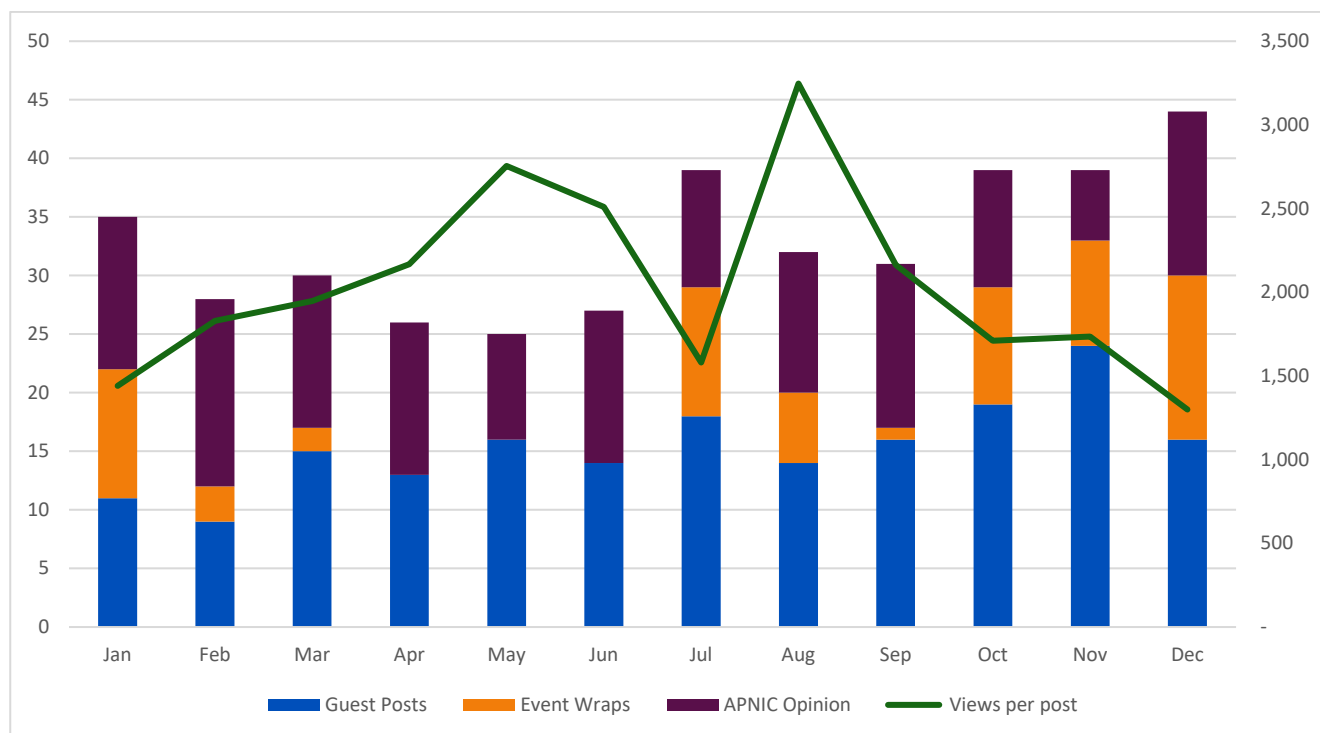
**Figure 18: APNIC Blog posts**

- The Blog averaged 64,778 views per month, a 35% increase on 2019's monthly average of 48,026. The Blog passed the milestone of 2.5 million views (all-time) in October.

- There were 185 Guest Posts in 2020, representing 56% of total opinion posts (an increase on 2019's 49%).

- Popular posts included:

  o A Guest Post on Chromium's impact on root DNS traffic by Matthew Thomas that generated seven media articles on tech news sites around the world. This influential Guest Post led to redevelopment of Chromium code and a 41% reduction in global root zone traffic by the end of 2020.

  o A Guest Post on changing attitudes to IPv6 by Avery Pennarun.

  o A Guest Post on network topology for satellite systems by Debopam Bhattacherjee.

  o Jun Murai's announcement regarding the future of 43/8.

  o Geoff Huston's review of BGP in 2019.

  o A Guest Post on IPv6 private addressing by Mark Smith.

## 4A.2    Information product management

- UX/UI improvements were made to all information products, based on user data and feedback (ongoing activity).

- Internet Directory

  o RDAP and whowas tabs were added.

  o New information architecture is under development.

  o Overview section (to offer a snapshot of an economy or sub-region) is under development.

  o Comparison mode for AS interconnection diagrams enabled.

  o Interface improvements for consistency and usability include summary figures above charts and improvements to map views.

- DASH
  - DASH v1.0 was released during APNIC 50, with data to access success being collected.
  - DASH users increased from 99 in Q2 to 1,914 in Q4.
  - Received 23 user requests for additional information from APNIC's security team.
  - Recurring delivery of reports feature is under development.
  - Section referencing other sources with relevant data was added to the 'What to do' page.
- NetOX
  - A new version of NetOX was released at APNIC 50, including a new welcome page and pilot Chinese language options (simplified and traditional).
  - NetOX users increased from 347 in Q2 to 2,332 in Q4.
  - Two ideas for new widgets have been validated.
  - 'Discover more tools' page was added, referring users to other external tools they may find useful.
  - Navigation improvements were implemented.

## Success measures – 4A

| Targets | Results | Status |
|---|---|---|
| **Reach 2.4 million blog views (all time)** | 2,638,935 views | 🟢 |
| **Average 50,000 blog views per month** | 64,778/month | 🟢 |
| **Maintain blog Guest Post ratio between 45 to 50%+** | 56% | 🟢 |
| **Achieve a net promoter score higher than 70 for Internet Directory, NetOx and DASH** | 37, 71 and 68 respectively | 🔴 |
| **Achieve a usability score higher than 4.5 for Internet Directory, NetOx and DASH** | 4.1, 4.7 and 4.6 respectively | 🔴 |
| **Achieve at least 30% returning users to the Internet Directory, NetOX and DASH** | 138%, 206% and 22% respectively | 🔴 |
| **Participation in user research activities of at least eight users per product during the year** | 66 participants | 🟢 |

## 4B      Research and Analysis

## Operations

### 4B.1     Conducting research and measurements

- New measurements on the use of IPv6 as a transport protocol for the DNS and IPv6 Extension Header handling.
- Analysis of advertised, unadvertised and reserved address pools over time.

- Reporting on the annual state of BGP, and further development of routing bogon and CIDR reports, as input to the ISOC MANRS activity. Work continues on automated BGP anomaly detection.

- An RPKI ROV monitor was developed, looking at progressive deployment of ROV filters in the network.

- DNS research included analysis of the handling of large DNS responses, adoption of DOH, and DNS query patterns.

## 4B.2    Sharing research outcomes

- Published 26 blog articles, including research findings, analysis of trust infrastructure, and a commentary on new Internet technologies.

- Delivered 39 event presentations (all online since February).

## 4B.3    Cooperative research

- Entered a cooperative research program with ISOC in support of MANRS, providing a feed of routing data.

- Work on measurement framework for the Identifier Health Indicators (ITHI) program, as well as collaborative measurements on aspects of the DNS and DNSSEC, as part of a cooperative research agreement with ICANN.

# Success measures – 4B

| Targets | Results | Status |
|---|---|---|
| **Twelve research articles and reports published** | 26 published | 🟢 |
| **Ten research presentations delivered** | 39 presentations | 🟢 |
| **Two presentations to Policy SIG meetings** | 1 presentation | 🔴 |

# 5    Capability

## Operations

## 5A    Internal Technical Infrastructure

### 5A.1    Information architecture and management

- The workflow for documenting and implementing APIs was reviewed and improved. The use of OpenAPI to describe internal APIs is now standard practice.

- Requirements for inter-system tracing and management were incorporated into 2021 operations planning.

- Technical selection guidelines were improved for product development teams when designing new features or considering improvements.

- The TAP project is adopting several new technologies within the framework of the technical selection guidelines, using AWS Amplify for agile cloud deployment and GraphQL to explore alternative API technologies.

### 5A.2    Network and infrastructure operations

- Reviewed costs of existing transit and peering connectivity in Brisbane. A new gigabit IX peering connection was established with EdgeIX Australia from NextDC B1.

- Redundant peering with Google was established via PCCW Console Connect from NextDC B1, in addition to an existing peering arrangement via Megaport.

- The APNIC network was deemed MANRS-compliant after an ISOC evaluation. APNIC is an official MANRS participant.

- Office Wi-Fi was upgraded to support the Wi-Fi 6 standard, providing better coverage.

### 5A.3    System and platform operations

- A Google Cloud Platform (GCP) facility was established with a Kubernetes (GKE) cluster in Sydney. RDAP was deployed as a highly available service, with rolling update capability to allow zero-downtime upgrades.

- Cloudflare was configured to load balance production traffic to the GKE cluster supporting RDAP, with the goal of directing traffic to the closest multi-region cluster in future.

- The infrastructure-as-code (terraform) is being written to allow deployment of GKE clusters to multiple regions within the same GCP Virtual Private Cloud (VPC) network.

- Production usage data from the Sydney cluster is being analysed to determine best cost options for multiple RDAP deployments. Individual NIR RDAP services were also deployed on the GCP.

- The deprecation of TLSv1.0 and TLSv1.1 was completed all APNIC services, and a blog post was published.

- The Hardware Security Module (HSM) was reconfigured to create a separate key for the RPKI AS0 ROA (see 2B.3).

- Work is in progress to consolidate and upgrade the registry backend database (MySQL).

- Cloudflare was reconfigured to use heavy caching of APNIC public websites to improve response and availability.

- Completed the annual asset review and stocktake of office IT hardware.

### 5A.4    CSIRT operations

- As part of ISMS for ISO 27001 preparations, the internal Acceptable Use Policy (AUP) and Bring Your Own Device (BYOD) policy were updated.

- A Vulnerability Reporting Program was announced in July, along with a new GPG key for the CSIRT email (csirt@apnic.net). Thirty-one unique and verified vulnerability reports from external security researchers were received between July and December.

- External penetration testing was completed and detected no high severity vulnerabilities. Mitigation tasks have been assigned to the responsible teams. Additional testing is ongoing, focusing on potential network vulnerabilities.

- Regular security awareness training for all staff continued during the COVID-19 work from home period.

- Audits of administrator access accounts, and of current technical controls against CIS Controls, were conducted in June.

- Seven security advice documents were issued internally.

- An ISO 27001 gap analysis was conducted in August, with analysis and remediation work in progress.

## 5A.5    Enterprise application management

- Litmos was implemented for tracking of staff compliance training and policy compliance.

- All staff and CTs were migrated to Okta authentication for web application access.

- S/MIME Digital Signing and email encryption was implemented using an external CA for better efficiency.

- A Legacy Application Roadmap is being developed to move internal applications away from certificate-based authentication to modern OpenID Connect standards.

# Success measures – 5A

| Targets | Results | Status |
|---|---|---|
| **Develop dependency management framework using APIs to map system dependencies** | Completed | 🟢 |
| **Availability of 99.95% for critical APNIC services and 99.9% for non-critical APNIC services** | 99.98% critical services 99.99% non-critical services | 🟢 |
| **Annual stocktake and audit of all IT hardware completed** | Completed | 🟢 |
| **Begin investigations and notify senior management within two hours of on-call notification and achieve containment within four hours for any critical incident** | No critical incident reported | 🟢 |
| **All EC, Community Trainers, and APNIC staff credentials managed under OKTA** | Completed | 🟢 |
| **Roadmap completed for removal of legacy data systems** | 2021 scheduled completion | 🔴 |

# Investments

## 5A.6    Network presence at Asia Pacific Internet hubs

Improving APNIC online service performance with better network presence and interconnection in the region.

Objectives:

▪ Review options for improving performance of APNIC services by direct peering at co-located Internet hub locations.

▪ Make deployment of APNIC's critical services more effective.

Status:

▪ A new direct remote connection from Brisbane to Equinix IX in Singapore was established, for direct peering and reduced latency with networks in South and South East Asia.

▪ A direct remote connection from Brisbane to HKIX in Hong Kong was in progress.

▪ Reachability is monitored using RIPE Atlas anchors from several locations.

# 5B    Finance and Business Services

## Operations

### 5B.1    Knowledge management

▪ The staff intranet is being transferred from Foswiki to Confluence.

### 5B.2    Financial services

▪ The implementation of the new PBCS financial reporting tool was completed in July.  Financial reports and forecasting were transitioned to the platform.

▪ The annual audit of APNIC's 2019 financial accounts was completed by Deloitte and presented to the EC at APNIC 49.

### 5B.3    Business services

▪ An external full recertification audit of APNIC's ISO9001:2016 quality management system was successfully completed in August.

▪ A new travel request process integrating with External Relations functions was developed in Salesforce. A COVID-19 BCP response team was established in January to oversee APNIC staff travel, office operations, and APRICOT 2020. A staff 'work from home' plan was implemented in March. The COVID-19 situation was reviewed weekly and policies adjusted as needed.

▪ A project to digitize membership forms is in progress.

## Success measures – 5B

| Targets | Results | Status |
|---|---|---|
| Knowledge management tools identified, and implementation project plan developed | Completed | 🟢 |
| Successful audit of APNIC's annual financial accounts | Completed | 🟢 |
| Successful completion of annual ISO quality management compliance audit | Completed | 🟢 |
| Successful implementation of the new PBCS financial reporting tool and framework | Completed | 🟢 |
| Quarterly BCP scenario testing undertaken | Completed | 🟢 |

## Investments

### 5B.4    Business intelligence

Establishing a comprehensive business intelligence facility that integrates data from a range of systems to produce better analysis and consistent reporting, for internal use and for reporting to EC and members.

Objectives:

- Implement 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.

Status:

- The production data warehouse system was deployed in August 2020. In December, automated extract, transform, and load (ETL) processes began archiving data into the warehouse on a daily basis.

- The initial data mart development process resulted in significant improvements to the data warehouse deployment. A data mart capable of producing Annual Report information will be deployed in the first quarter of 2021.

## 5C    Employee Experience

## Operations

### 5C.1    Organizational development

- During 2020, there was a focus on increasing the use of Agile tools and methodologies by both technical and non-technical teams.  ICAgile Certification in Agile Fundamentals was completed for all non-product teams.

- All members of the APNIC executive, management team and specialists participated in a Leadership Development Program (ASPIRE) between July and November.

- Virtual presentation skills training was provided to staff and CTs.

## 5C.2    Physical work environment management

- A COVID-19 BCP response team was established (5B.3).

- A hybrid of restricted office access and work from home arrangements were established with no service or performance interruptions.

- The security surveillance system was upgraded in August.

## 5C.3    Talent attraction and retention

- Permanent roles filled:
    - Senior DevOps Engineer
    - Systems Administrator (Internal Services)
    - Senior Full Stack Developer
    - Senior Digital Communications Officer
    - Network Analyst/Technical Trainer
    - Salesforce Developer / Admin
    - Senior Advisor – Strategic Engagement
    - Senior Network Analyst/Technical Trainer
    - Salesforce Developer/Administrator
    - Finance Manager/Management Accountant

- Casual roles filled:
    - Internet Resource Analyst
    - People Operations Coordinator

- Contractors engaged:
    - Foundation:
        - Community Engagement Officers (x2)
        - National Project Coordinator (x2)
    - APNIC:
        - UX/UI Designer
        - Lead Full Stack Web Developer
        - Full Stack Web Developer (x2)
        - Training Content Subject Matter Experts (x3)
        - Internet Network Operations Writer
    - Community Trainers engaged:
        - Community Trainer (x5)

## 5C.4    Policies and benefits management

- Policies were established and/or reviewed to accommodate legislative changes and organizational requirements. In particular, the following were introduced:

- o [COVID-19 HR Bulletin](#)

- o [COVID-19 Business Continuity Staff Resourcing Plan](#)

- o [COVID-19 Return to Work Plan](#) (version effective 24 August 2020)

- o [WHS Risk WHS Risk Assessment for COVID-19](#)

- o [WHS Plan for Working in the APNIC Office during COVID-19](#)

- o [COVID-19 Emergency Plan](#) (in the case of a positive test result)

- o [COVID-19 Office Attendance Roster](#)

- Salary and benefits reviews were completed in December, following annual performance reviews and an audit of role market pricing.

## Success measures – 5C

| Targets | Results | Status |
|---|---|---|
| **Strategic goals clearly cascade to individual performance measures in 2020 annual reviews** | Postponed to Jan 2021 | 🔴 |
| **Risk management data demonstrating any WHS incidents are not caused by APNIC's local or remote environments** | Achieved | 🟢 |
| **Building surveillance system upgraded** | Completed | 🟢 |
| **Staff turnover rate is within acceptable benchmarks of between 5 and 15%** | 3.5 % turnover | 🟢 |
| **Professional development budget is fully spent, and addresses needs identified in performance reviews wherever possible** | Completed | 🟢 |
| **Identify workplace policies that are not aligned with best practice in Australia and provide recommendations for 2021 budget** | Completed | 🟢 |

## Investments

### 5C.5    Product management

Establishing two new product teams (with assignments of existing staff), extending APNIC's product management framework to other areas of the organization.

Objectives:

- Establish product teams for the APNIC Academy online platform and enterprise applications.

- Provide training and coaching for product managers and teams.

Status:

- Product teams for Academy and Enterprise systems were established in Q1.

- Product management training was completed in Q1. Ongoing coaching is provided by both external consultants and an internal product management coach.

## 5D      Governance

## Operations

### 5D.1      Executive Council (EC) support

- Sumon Ahmed Sabir and Vincent 'Achie' Atienza were elected to the APNIC EC for the first time at APNIC 49, with Kam Sze Yeung being re-elected to the EC for a third term.

- Sumon and Achie participated in the EC induction program in early April.

- The first EC meeting of the year was held in Melbourne on 18 and 21 February, followed by online meetings on 17 March, 4 May, 22-24 June, 4 and 11 September, and 7-8 December 2020.

### 5D.2      Corporate governance and legal

- A revised Strategic Risk Register was presented to the EC in June, incorporating feedback from the EC meeting held at APNIC 49, and the strategic planning workshops in 2019.

- An updated APNIC Privacy Statement was published on 31 March 2020. Staff were provided with privacy training on 18 March and 2 April to ensure awareness of privacy law obligations. A separate Privacy Statement for the APNIC Foundation was published on 26 March.

- Crisis management and communication training was provided to all members of the Leadership Team in March.

## Success measures – 5D

| Targets | Results | Status |
|---|---|---|
| **Revised Strategic Risk Register fully implemented** | Completed | 🟢 |

# Appendix A: Engagement Summary

## Community engagement summary
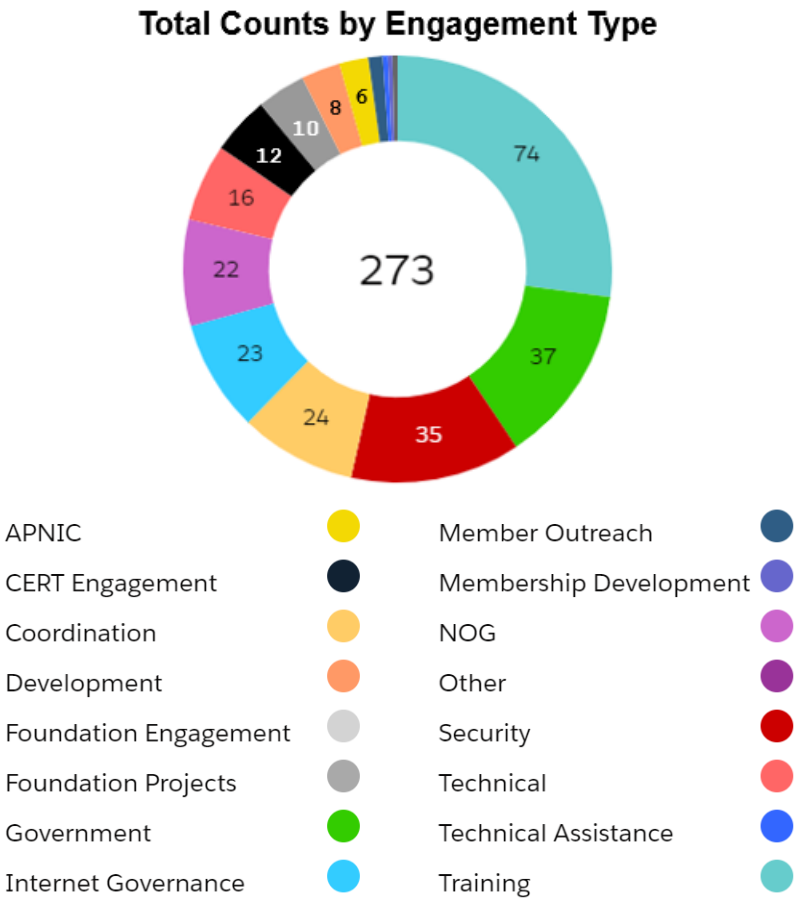


Figure 19: Engagements summary by type

## Events vs Engagements by Month
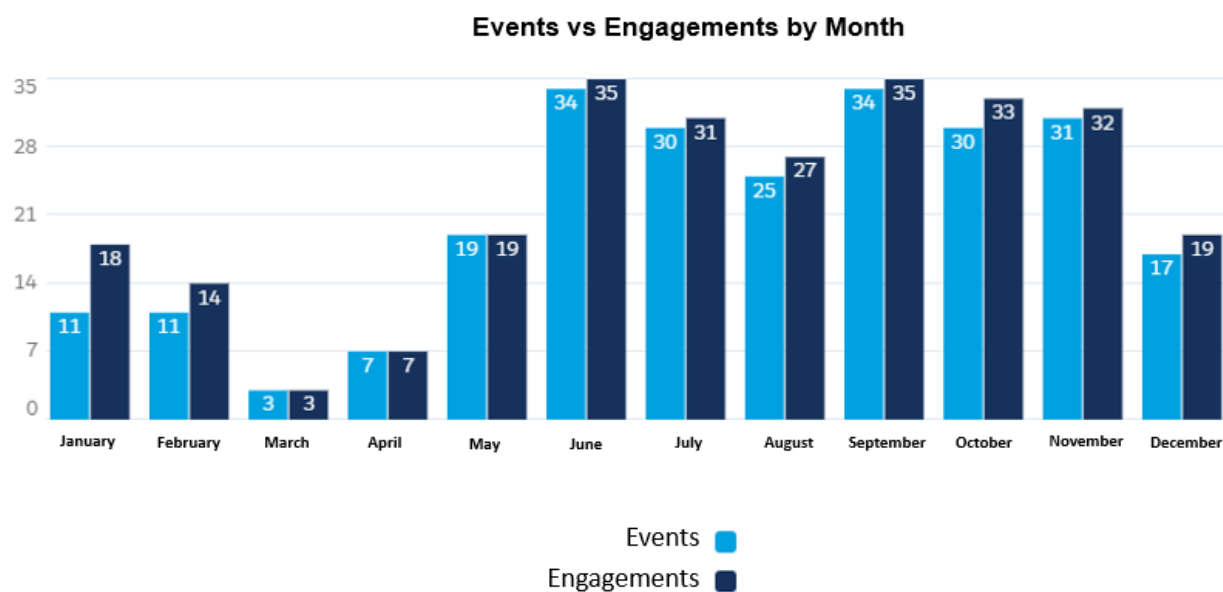


**Figure 20: Engagement summary by month**

## Number of engagements by Subregion
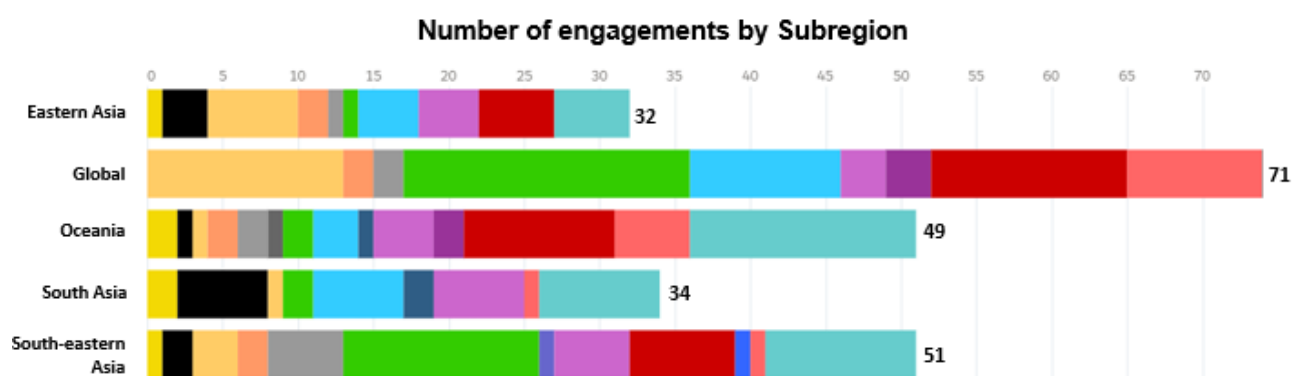


*Not including Training engagement counts that were open to all and non-subregion specific (36).

| | | | |
|---|---|---|---|
| APNIC | 🟡 | Member Outreach | 🔵 |
| CERT Engagement | ⚫ | Membership Development | 🟣 |
| Coordination | 🟠 | NOG | 🟣 |
| Development | 🟠 | Other | 🟣 |
| Foundation Engagement | ⚪ | Security | 🔴 |
| Foundation Projects | ⚫ | Technical | 🔴 |
| Government | 🟢 | Technical Assistance | 🔵 |
| Internet Governance | 🔵 | Training | 🟢 |

**Figure 21: Engagement summary by subregion/type**

**Figure 22: Engagement detail by economy**
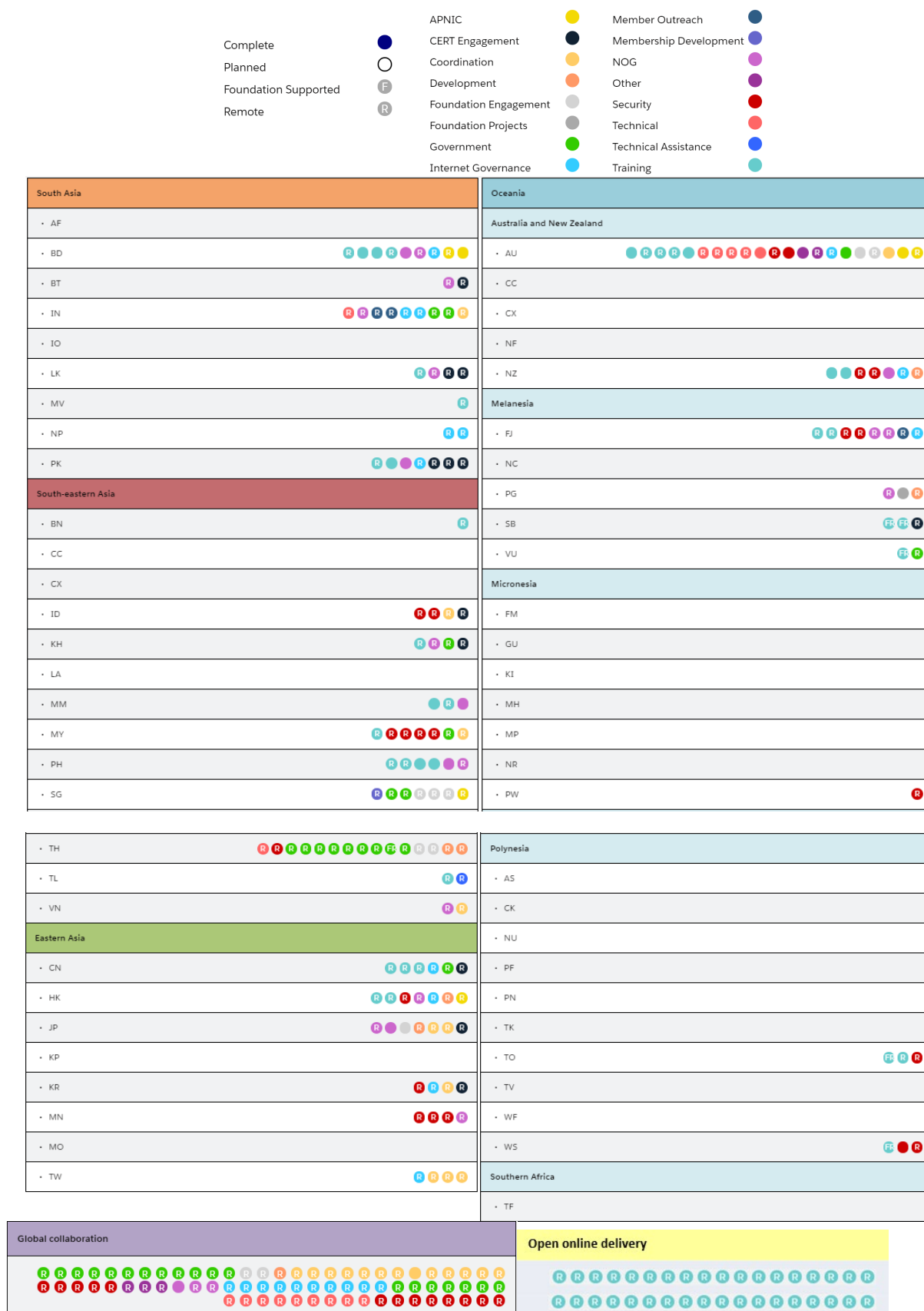
*Global collaboration is for events dedicated and engaged outside the Asia Pacific region. Open Online Delivery refers to APNIC events delivered within and for the AP region but open globally for anyone.*

## Touchpoint Total Counts by Month
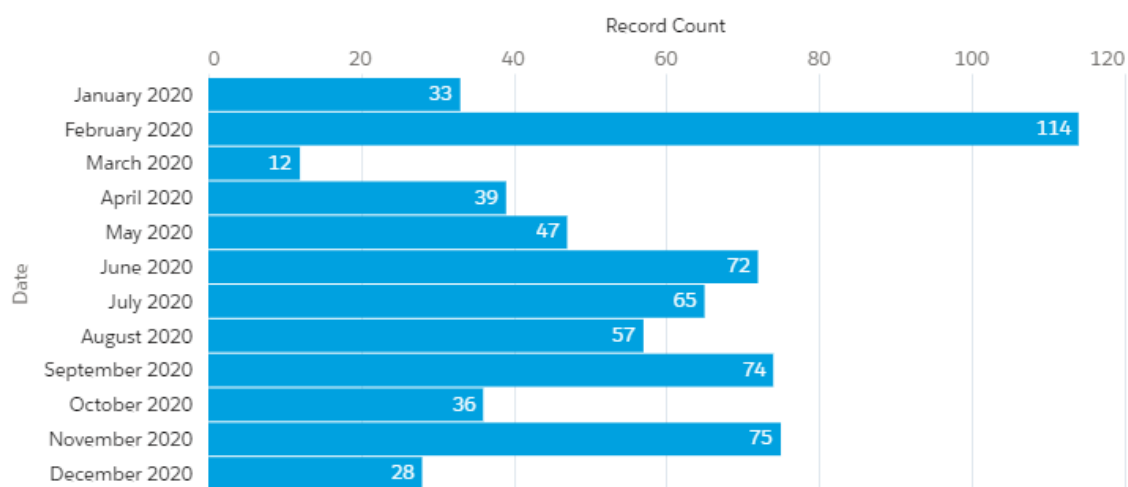


## Touchpoints by Contacts Subregion
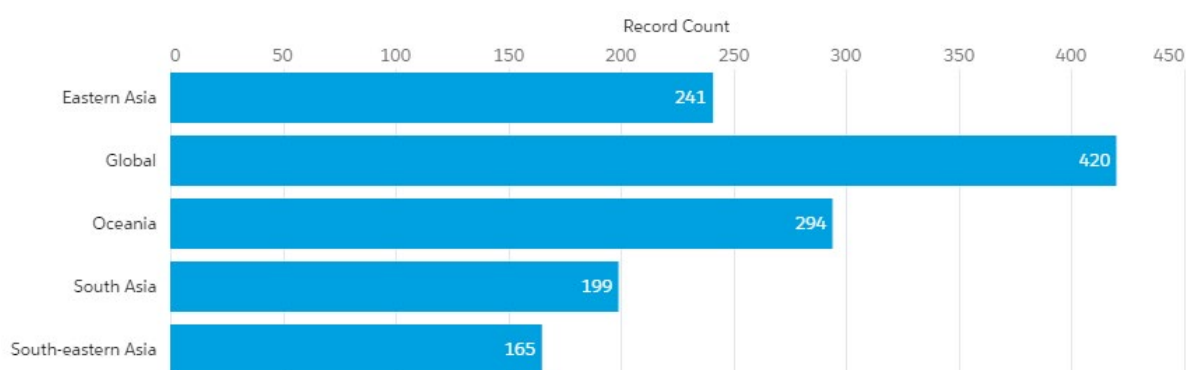


**Figure 23: Touchpoints summary**

Touchpoints are interactions by APNIC staff with a contact (APNIC Member or Non-Member), usually during an event.

## Events attended in 2020

| Month | Event name | Economy | F2F or Virtual |
|-------|-----------|---------|----------------|
| Jan | Foundation meetings - Tokyo Jan 2020 | JP | F2F |
| Jan | Securing Internet Routing Workshop | AU | F2F |
| Jan | 3rd ACEMS Workshop on Challenges of Data and Control of Networks (ACDCN) | AU | F2F |
| Jan | MMIX Peering Forum & MMNOG 2020 | MM | F2F |
| Jan | JANOG 45 | JP | F2F |
| Jan | SANOG 35 | PK | F2F |
| Jan | NZNOG 2020 | NZ | F2F |
| Jan | BDNOG11 | BD | F2F |
| Jan | PNGTRAINING WS 15 - DNS & DNSSEC | PG | F2F |
| Jan | CERT Support for Pakistan Telecom Authority | PK | Virtual |
| Jan | Intro to CSIRTs with LEARN | LK | Virtual |
| Feb | NANOG 78 | US | F2F |
| Feb | PhNOG 2020 | PH | F2F |
| Feb | 2020 Global Cybersecurity Capacity Building Conference | AU | F2F |
| Feb | 2020 Australasian Aid Conference | AU | F2F |
| Feb | APRICOT 2020 | AU | F2F |
| Feb | Cyber Safety Pasifika - Content Review Workshop | AU | F2F |
| Feb | NRO ECG | NL | F2F |
| Feb | Samoa IT Association (SITA) IT Security Seminar | WS | F2F |
| Feb | APTLD77 Members Meeting & 2020 AGM | AU | F2F |
| Feb | Honeypot Project for HKPF | HK | Virtual |
| Mar | ICANN 67 | MX | Virtual |
| Mar | IETF 107 | CA | Virtual |
| Apr | GFCE-V Meeting 2020 | NL | Virtual |

| Apr | Securing Internet Routing tutorial | AU | Virtual |
|---|---|---|---|
| Apr | Securing Internet Routing tutorial | AU | Virtual |
| Apr | Cambodia CERT Security Talk | KH | Virtual |
| Apr | ISOC-APNIC Tech Talk on RPKI 101 | AU | Virtual |
| May | APT WTSA20-2 | TH | Virtual |
| May | Securing Internet Routing tutorial | AU | Virtual |
| May | EU ATT&CK Community Workshop | BE | Virtual |
| May | Infosec Jupyterthon 2020 | US | Virtual |
| May | NRO EC Virtual Meeting | MY | Virtual |
| May | Panel Discussion on CERT/CSIRT | ID | Virtual |
| May | Suricata IDS / NSM Developer Webinar | US | Virtual |
| May | APT Web Dialogue Series | TH | Virtual |
| May | LACNIC 33 | CO | Virtual |
| May | RIPE 80 | DE | Virtual |
| May | FIRST Cyber Threat Intelligence Summit (CTI) | CH | Virtual |
| May | Foundation Board Meeting 2020 | SG | Virtual |
| May | Suricata IDS Tutorial with MYREN Community | MY | Virtual |
| May | Securing Internet Routing tutorial (SE Asia/ East Asia) | OPEN | Virtual |
| May | Securing Internet Routing tutorial (South Asia) | OPEN | Virtual |
| May | Security Analysis Tutorial for Solomon Island Government Data Centre Team | SB | Virtual |
| Jun | NANOG 79 | US | Virtual |
| Jun | ITU Telecommunication Development Advisory Group Meeting | CH | Virtual |
| Jun | Global Stakeholders Dialogue on the Future of the Internet | FR | Virtual |
| Jun | Introduction to IPv6 Webinar | PH | Virtual |
| Jun | AVPN Conference 2020 | SG | Virtual |
| Jun | Advanced Routing with Multihoming Online Workshop | PK | Virtual |

| Jun | ITU 2020 Council Meeting | CH | Virtual |
|-----|--------------------------|------|---------|
| Jun | I-star Leaders Meeting | US | Virtual |
| Jun | DNS OARC 32a Workshop | FR | Virtual |
| Jun | PITA Technical and Business Session | SB | Virtual |
| Jun | PaCSON 2020 Virtual Session | NZ | Virtual |
| Jun | Securing Internet Routing tutorial | OPEN | Virtual |
| Jun | UNIDIR: Implementing Cyber Norms, National Experiences Good Practices | CH | Virtual |
| Jun | RSCG and Legal Team Joint Meeting | NL | Virtual |
| Jun | 2nd MAG Meeting 2020 | CH | Virtual |
| Jun | IX 2020 - Internet Security & Mitigation of Risk Webinar | MN | Virtual |
| Jun | Interim Meeting of the APT-WTSA20 Working Group 3 | TH | Virtual |
| Jun | ARIN 45 | US | Virtual |
| Jun | ROW #9 | US | Virtual |
| Jun | PNGNOG Meet Up | PG | Virtual |
| Jun | FIRST.org Special Interest Groups (SIGs) Meetings | US | Virtual |
| Jun | ICANN 68 | MY | Virtual |
| Jun | WSIS Forum 2020 | CH | Virtual |
| Jun | HKIGF 2020 | HK | Virtual |
| Jun | ISOC ICOMM Virtual Event (MANRS) | US | Virtual |
| Jun | 38th JPOPM | JP | Virtual |
| Jun | Network Security tutorial (SE Asia / East Asia) | OPEN | Virtual |
| Jun | AFRINIC Webinar 'Internet Infrastructure Support in Times of Crisis' | MU | Virtual |
| Jun | UN INCB - Experts on Drug Trafficking | AT | Virtual |
| Jun | PACNOG 26 | FJ | Virtual |
| Jun | ReversingLabs 2020 | US | Virtual |

| Jun | Networking from Home (South East Asia) | SG | Virtual |
|-----|----------------------------------------|------|---------|
| Jun | Networking from Home (South Asia) | BD | Virtual |
| Jul | UNESCAP Webinar: Bringing affordable and reliable Internet to all (IXP) | TH | Virtual |
| Jul | PaCSON Follow Up Virtual Session | NZ | Virtual |
| Jul | VNNIC-APNIC Engagement Series | VN | Virtual |
| Jul | Securing Internet Routing online tutorial | FJ | Virtual |
| Jul | Network Security tutorial (South Asia) | OPEN | Virtual |
| Jul | Broadband India Forum | IN | Virtual |
| Jul | UN High Level Political Forum on Sustainable Development 2020 | US | Virtual |
| Jul | Network Security tutorial (Oceania) | OPEN | Virtual |
| Jul | PHNOG Virtual 2020 | PH | Virtual |
| Jul | APT WTSA20-3 | CN | Virtual |
| Jul | EU Cyber Direct - Closing the Gap | BE | Virtual |
| Jul | UCEnet  / LEA Engagement | NL | Virtual |
| Jul | Networking From Home (East Asia) | HK | Virtual |
| Jul | Fair Tech Forum | SG | Virtual |
| Jul | SANS DFIR Summit | US | Virtual |
| Jul | PhNOG DNSSEC tutorial | PH | Virtual |
| Jul | Security Engagement with PK community | PK | Virtual |
| Jul | ITU-T Study Group 13 Virtual Meeting | CH | Virtual |
| Jul | IAA Webinar: Life Under Lockdown: How to stop heists, hijacks, and hostages | AU | Virtual |
| Jul | ITU-T Study Group 11 Virtual Meeting | CH | Virtual |
| Jul | DNS/DNSSEC tutorial (East Asia/ SE Asia) | OPEN | Virtual |
| Jul | Digital Infrastructure: Building Our Digital World | US | Virtual |
| Jul | Honeynet Threat Sharing Platform Webinar | ID | Virtual |

| Jul | China IGF 2020 | CN | Virtual |
|-----|----------------|-----|---------|
| Jul | IPv6 tutorial | CN | Virtual |
| Jul | APT WTDC21-1 | TH | Virtual |
| Jul | IETF 108 | ES | Virtual |
| Jul | RightsCon Online | US | Virtual |
| Jul | Log Analysis Tutorial for Security Analysts | MN | Virtual |
| Jul | DNS/DNSSEC tutorial (part 1) (South Asia) | OPEN | Virtual |
| Aug | KHNOG 2 Online Webinar | KH | Virtual |
| Aug | APAN 50 | HK | Virtual |
| Aug | APAN 50 Introduction to Vulnerability Assessment and Penetration Testing tutorial and Segment Routing tutorial | HK | Virtual |
| Aug | Networking from Home (Oceania) | AU | Virtual |
| Aug | DNS/DNSSEC tutorial for Pacific | OPEN | Virtual |
| Aug | 2nd WG on Pacific IXP and Capacity Training Workshop | TH | Virtual |
| Aug | Digital Infrastructure:Equity & Sustainability in Open Source | US | Virtual |
| Aug | INNOG 3 | IN | Virtual |
| Aug | AVPN Webinar: Shifts in Chinese Private Sector Giving | SG | Virtual |
| Aug | Global Cyber Policy Dialogues: Southeast Asia | SG | Virtual |
| Aug | 7th IRINN OPM | IN | Virtual |
| Aug | DNS-OARC 32b | US | Virtual |
| Aug | RPKI Deployment for Maxis Broadband | MY | Virtual |
| Aug | Global Cyber Policy Dialogues: Southeast Asia | SG | Virtual |
| Aug | Security Webinar with Universiti Teknologi Malaysia | MY | Virtual |
| Aug | 4th AP Information Superhighway (AP-IS) SC 2020 | TH | Virtual |
| Aug | KubeCon + CloudNativeCon Virtual 2020 | NL | Virtual |
| Aug | PKSIG 2020 | PK | Virtual |
| Aug | APAC Online Policy Forum | RU | Virtual |

| Aug | Virtual Interim Meeting of Working Groups of the APT WTSA-20 | TH | Virtual |
|-----|-----|-----|-----|
| Aug | Advanced Routing tutorial (SE Asia/East Asia) | OPEN | Virtual |
| Aug | Advanced Routing tutorial (South Asia) | OPEN | Virtual |
| Aug | JANOG 46 | JP | Virtual |
| Aug | 17th APT Telecommunication/ICT Development Forum (ADF-17) | TH | Virtual |
| Aug | IPv6 Deployment tutorial | MV | Virtual |
| Sep | ITU Global Symposium for Regulators 2020 (GSR-20) | CH | Virtual |
| Sep | Advanced Routing tutorial (Oceania) | OPEN | Virtual |
| Sep | APTLD 78 | TW | Virtual |
| Sep | APNIC 50 <br><br>(AP* and APIX Meeting) | *BD | Virtual |
| Sep | AIS'20 (AFRINIC 32) | CD | Virtual |
| Sep | EU Cyber Forum 2020 | BE | Virtual |
| Sep | GNA Community VCs 2020Q3 | DK | Virtual |
| Sep | Virtual AusCERT 2020 Conference | AU | Virtual |
| Sep | ITU Global Cyberdrill 2020 <br><br>(Asia Pacific Regional Dialogue: CIRTs, Lessons Learnt from COVID-19 Crisis and Webinar: How to Reduce Cyber Risk and Increase National Cyber Resilience) | CH | Virtual |
| Sep | IPv6 Deployment tutorial (SE Asia/ East Asia) | OPEN | Virtual |
| Sep | LINX Presents: Steve Crocker and Geoff Huston | GB | Virtual |
| Sep | ITU Interregional Meeting for WTSA-20 | IN | Virtual |
| Sep | ISP start-up webinar | TL | Virtual |
| Sep | SEEDIG 6 | MD | Virtual |
| Sep | UN75 Commemoration | US | Virtual |
| Sep | ITU-T Telecommunication Standardization Advisory Group (TSAG) Virtual Meeting | CH | Virtual |
| Sep | Internet Routing tutorial | TL | Virtual |

| Sep | UN General Debate of 75th Session | US | Virtual |
|-----|-----------------------------------|-----|---------|
| Sep | Microsoft Ignite 2020 | US | Virtual |
| Sep | Web Dialogue: New IP and global Internet governance | US | Virtual |
| Sep | UN Digital Cooperation: Action Today for Future Generations | US | Virtual |
| Sep | IPv6 Deployment tutorial (South Asia) | OPEN | Virtual |
| Sep | HKNOG 9.0 | HK | Virtual |
| Sep | RPKI Support for IN operators | IN | Virtual |
| Sep | Security Workshop (Women in ICT Tonga) | TO | Virtual |
| Sep | APrIGF 2020 | NP | Virtual |
| Sep | AI3 & SOI Asia Joint ONLINE Meeting 2020 FALL | JP | Virtual |
| Sep | DNS-OARC 33 | FR | Virtual |
| Sep | TWNIC RPKI Day | TW | Virtual |
| Sep | APCERT AGM | JP | Virtual |
| Sep | ConnecTechAsia 2020 | SG | Virtual |
| Sep | APT PRFP-13 | TH | Virtual |
| Sep | VNIX-NOG 2020 | VN | Virtual |
| Sep | IPv6 Deployment tutorial (Oceania) | OPEN | Virtual |
| Sep | Security talk for Universiti Kuala Lumpur | MY | Virtual |
| Oct | NetThing 2020 | AU | Virtual |
| Oct | LACNIC 34/LACNOG 2020 | BO | Virtual |
| Oct | 8th INTERPOL-Europol Cybercrime Conference 2020 | NL | Virtual |
| Oct | Slack Frontiers | US | Virtual |
| Oct | IPv6 Deployment online tutorial | BN | Virtual |
| Oct | inSIG 2020 | IN | Virtual |
| Oct | 34th TWNIC OPM | TW | Virtual |
| Oct | bdNOG 12 | BD | Virtual |

| Oct | Cyber Safety Pasifika East Pacific (Tier 2 Internet Fundamentals) | FJ | Virtual |
|---|---|---|---|
| Oct | ICANN 69 (22nd AGM) | DE | Virtual |
| Oct | NetHui 2020 | NZ | Virtual |
| Oct | Internet Routing Security tutorial | BD | Virtual |
| Oct | APT WTSA-20 Virtual Interim Meeting for Working Groups | TH | Virtual |
| Oct | ARIN 46 | US | Virtual |
| Oct | APEC TEL 61 | MY | Virtual |
| Oct | btNOG 7 | BT | Virtual |
| Oct | NANOG 80 | US | Virtual |
| Oct | Internet Routing with RPKI - Solomon Islands -Pacific Technical Training Project | SB | Virtual |
| Oct | ISCR 2020 | KR | Virtual |
| Oct | Sri Lanka CERT Cyber Security Week | LK | Virtual |
| Oct | Cyber Safety Pasifika West Pacific (Tier 2 Internet Fundamentals) | VU | Virtual |
| Oct | APT PRF-20 (20th APT Policy and Regulatory Forum) | TH | Virtual |
| Oct | LINX Presents: The Internet model: fit for the future or creaking at the seams? | GB | Virtual |
| Oct | SDN session for Women in ICT Tonga | TO | Virtual |
| Oct | FIRST Regional Symposium Africa & Arab Region Plenary | MU | Virtual |
| Oct | Network Security - Samoa - Pacific Technical Training Project | WS | Virtual |
| Oct | Pacific Women in ICT October Meetup | FJ | Virtual |
| Oct | RIPE 81 | IT | Virtual |
| Oct | mnNOG 2 | MN | Virtual |
| Oct | MNSEC 2020 | MN | Virtual |
| Oct | Cyber Safety Pasifika Tier 2 (Palau) | PW | Virtual |
| Oct | Youth IGF India 2020 | IN | Virtual |
| Nov | Network Security – Tonga – Pacific Technical Project | TO | Virtual |

| Nov | KrCERT/CC APISC Training 2020 | KR | Virtual |
|-----|-------------------------------|-----|---------|
| Nov | IGF 2020 | PL | Virtual |
| Nov | ITU (RDF) Regional Development Forum for Asia and the Pacifics 2020 | TH | Virtual |
| Nov | ACM SIG Conferences | US | Virtual |
| Nov | bdIGF 2020 | BD | Virtual |
| Nov | Network Security – Vanuatu – Pacific Technical Project | VU | Virtual |
| Nov | TWIGF | TW | Virtual |
| Nov | Peering Asia 3.5v | TH | Virtual |
| Nov | KRNIC/KISA Engagement Series | KR | Virtual |
| Nov | Pacific IXP – First National Consultation | NZ | Virtual |
| Nov | IETF 109 | TH | Virtual |
| Nov | Network Security - Solomon Islands - Pacific Technical Training Project | SB | Virtual |
| Nov | APT WTSA20-4 | TH | Virtual |
| Nov | Annual FIRST Conference 2020 | CA | Virtual |
| Nov | ITU 2020 Council - 2nd Virtual Consultation | CH | Virtual |
| Nov | IPv6 training x2 | CN | Virtual |
| Nov | Pacific Cyber Dialogue | PG | Virtual |
| Nov | Digital Pacific Conference 2020 | WS | Virtual |
| Nov | Internet Week Japan 2020 | JP | Virtual |
| Nov | RPKI India Webinar 2 | IN | Virtual |
| Nov | Beyond APIGA 2020 | KR | Virtual |
| Nov | APSIG 2020 | NP | Virtual |
| Nov | IPv6 tutorial | KH | Virtual |
| Nov | OIC-CERT Conference 2020 | MY | Virtual |
| Nov | GFCE Annual Meeting 2020 | CH | Virtual |

| Nov | Segment Routing tutorial South Asia | OPEN | Virtual |
|-----|-------------------------------------|------|---------|
| Nov | 1 C/D Digital Inclusion Roundtable discussion / Roadmap for Digital Cooperation | US | Virtual |
| Nov | Marshall Center iPCSS | DE | Virtual |
| Dec | PacNOG 27 | FJ | Virtual |
| Dec | Segment Routing tutorial | OPEN | Virtual |
| Dec | BTCIRT Community Workshop | BT | Virtual |
| Dec | Dreamforce 2020 | AU | Virtual |
| Dec | IDNIC AMM 2020 | ID | Virtual |
| Dec | Introduction to SDN tutorial | MM | Virtual |
| Dec | ITU-T Study Group 11 and 13 | CH | Virtual |
| Dec | Connections 2020 | IN | Virtual |
| Dec | Segment Routing tutorial Oceania | OPEN | Virtual |
| Dec | MANRS Tech Talk with Geoff Huston | AU | Virtual |
| Dec | bSides Brisbane 2020 | AU | Virtual |
| Dec | APT Training – ICT and Policy Regulation | IN | Virtual |
| Dec | CNCERT International Partnership in Emergency Response Conference | CN | Virtual |
| Dec | LKNOG 4 | LK | Virtual |
| Dec | CSIRT.id Virtual Seminar | ID | Virtual |

**Table 15: Events attended**

# APNIC

addressing the Internet in the Asia Pacific

## 2020

# Annual Report

# Contents

## EXECUTIVE COUNCIL

**Gaurab Raj Upadhaya,** Chair
Principal, Global Network Development (GND)
Infrastructure, Amazon Web Services (AWS)

**Vincent "Achie" Atienza,** Secretary
Peering, Interconnection & Strategy,
Globe Telecom

**Kenny Huang, PhD,** Treasurer
Managing Director and CEO,
TWNIC

**Sumon Ahmed Sabir**
Chief Technology Officer,
Fibre@Home Limited

Yoshinobu Matsuzaki
Senior Engineer,
Internet Initiative Japan Inc

Kam Sze Yeung
Senior Manager, Network Architecture,
Akamai Technologies

Yuedong Zhang
Deputy Chief Engineer,
CNCERT/CC

Paul Wilson, Ex-officio
Director General,
APNIC

## WELCOME FROM THE DIRECTOR GENERAL

I do believe that 2020 was the most challenging year ever for APNIC and for APNIC Members as a community, and of course for our staff, friends and families. The COVID-19 pandemic caused enormous suffering to millions across our region, and enormous upheaval for every one of us, in the way we work and live.

The pandemic has again proven the critical importance of the Internet, and its ability to sustain society in ways that were never predicted or practiced. Yet in spite of the extra demands and stresses, the Internet hardly missed a beat. It continued to operate smoothly despite changing traffic and usage patterns, due in no small part to the work of network operators around the world, and in the APNIC community.

We have all adapted to new ways of work and life, and if I had to characterise 2020 for APNIC it has been a year of agility and cooperation. The following Annual Report details APNIC's activities during the year, but I'd like to share some of the highlights here.

**Supporting Asia-Pacific NOGs.**
With most NOG events cancelled or postponed in early 2020, the Networking from Home (NFH) series was designed to encourage continued online networking and education. Organised with the support of 21 NOGs, the four events attracted 1,219 participants from 45 economies, received great feedback from the community, and provided a template for online NOG events.

APNIC was also pleased to be able to assist six NOGs hold individual online events following the NFH model, and support 13 more with sponsorship, presentations and participation in program committees.

**Adapting training delivery.**
Just 10 face-to-face training sessions were held in 2020, before the pandemic arrived in February. From that point, the APNIC Academy expanded its online activities rapidly, with 46 live online tutorials and 18 live webinars reaching 4,982 participants.

Those live training events were supported by on-demand courses and labs taken by up to 11,610 registered users, who received 2,519 completion

certificates during 2020. Thousands more engaged with online 'Academy Socials', featuring live interaction with well-known networking experts, via Facebook.

**Growing RPKI and IPv6.**
Training, promotion and technical assistance continued, to encourage ongoing deployment of both RPKI and IPv6. The percentage of Members with ROAs grew from 27.2% to 50.7%, with Mongolia achieving 100% ROA coverage in October. IPv6 capability for the APNIC region was 35.3% as measured by APNIC Labs, an increase on 2019's level of 30%. The proportion of Members who hold IPv6 resources increased 5.6% to 66.3%.

**Reclaiming unused IPv4.**
For the first time in several years APNIC's available IPv4 pool grew in size, thanks to efforts to reclaim unrouted and unused IPv4 space. Around 1.1 million IPv4 addresses (more than a /12) were voluntarily returned to the available pool following contact with the custodians by APNIC. This work – resulting from community feedback in the 2018 and 2020 APNIC Surveys – will continue in 2021.

## WELCOME FROM THE DIRECTOR GENERAL – CONTINUED

**Providing network information.**
The new Dashboard for AS Health (DASH), was launched to provide operators with network security metrics using data from APNIC's community honeynet, and an updated version of NetOX with Chinese language options (among other improvements) was released at APNIC 50.

A new global ROV monitor was launched by APNIC Labs, similar to its well-known IPv6 measurement tool. These tools were complemented by the APNIC Blog, which passed the milestone of 2.5 million views in October and increased its monthly views by 35%.

**Behind the Scenes.**
There were also many less visible achievements, behind the scenes at the APNIC Secretariat.

A full external recertification audit of APNIC's ISO9001:2016 quality management system was successfully completed. A new gigabit IX peering connection with APNIC's data centre was established, as well as redundant peering with Google. The APNIC network was deemed MANRS-compliant. The focus on Agile methods continued internally, with certification in Agile Fundamentals extended to all APNIC teams.

And on top of these achievements was the extensive 'COVID-safe' response to ensure the safety and productivity of the Secretariat during the pandemic. I'm pleased to say there was no disruption to APNIC services as a result and, as you will see in this Annual Report, a great deal of successful activity.

I do want to thank APNIC Staff, and acknowledge the efforts of 2020, a truly extraordinary year for the APNIC Secretariat.

Finally, I must also sincerely thank all Members, and members of the APNIC community, for your support and cooperation with the Secretariat and with each other in 2020. As a community we have successfully navigated the challenges of 2020 and maintained a stable Internet.

While the pandemic continues, APNIC will continue to play its part in 2021, as we hopefully see lives returning to normal in the coming year.

**Paul Wilson**
Director General

# WELCOME FROM THE EXECUTIVE COUNCIL CHAIR

On behalf of the Executive Council (EC), welcome to APNIC's 2020 Annual Report.

We had no idea that APNIC 49 (APRICOT 2020) in Melbourne was going to be the last of the large face-to-face conferences globally for the Internet industry. It was the 25th anniversary for APRICOT, a celebration of the enduring strength of the network operator community. And we were all set to celebrate APNIC 50 in Bangladesh in September.

You all know how the story went, though. Very few of us could have envisaged the year we had.

While there's no doubt that 2020 was incredibly difficult, what I take away from the experience is that enduring strength of the community that was celebrated in Melbourne.

As you'll read in this report, the Secretariat worked hard to adapt and stay connected during the pandemic. But I'd like to thank the APNIC community for its ongoing commitment and participation despite the challenges of COVID-19. That enthusiasm and spirit has helped maintain community cohesion through a difficult time for all of us.

**Excellent survey response**

The community's enthusiastic participation was highlighted by the record response to the APNIC Survey, with 1,624 responses received (31% more than the previous survey in 2018). The 2020 survey was available in 16 languages and 35% of respondents chose to complete the survey in a language other than English. The huge response is much appreciated by the EC, as the feedback gathered about APNIC's performance and the priorities of the community shapes APNIC's plans for future years.

The EC's response to the survey has been published and you can read some of our thoughts in more detail there. There are a couple of points, however, that I'd like to highlight here.

In past surveys there has been a rise in the endorsement of APNIC from Members and the community. In 2016, the number of respondents who spoke highly of APNIC was 41% and in 2018, that number increased to 56%. I'm thrilled to say that in the latest survey, that number rose again to 66% of respondents.

Similarly, when Members were asked whether APNIC was transparent in its activities, 89% of Members

answered positively in 2020, an increase on the previous two surveys (2018: 87%, 2016: 74%).

To witness the continuing upward trend in these two important metrics is very pleasing for the EC, as it is a strong indicator that both the long term strategy and annual operational delivery by APNIC is in line with the wishes of Members and the community.

**Meeting the demand for Internet development support**

APNIC's training and development efforts over the years have aimed to help meet the growing demand for a secure and stable Internet in the region. But the appetite for support has always far outstripped APNIC's resources.

The APNIC Foundation's efforts over the past four years to increase Internet development in the Asia Pacific has certainly helped, but the creation of the Asia Pacific Internet Development Trust, thanks to the initiative of Professor Jun Murai and the WIDE Project, means that the promise of the APNIC Foundation will be realised much sooner. With APIDT's support, the potential benefits the Foundation can generate for the region will be much larger.

# WELCOME FROM THE EXECUTIVE COUNCIL CHAIR – CONTINUED

While the establishment of the Trust in 2020 probably went unnoticed by most Members, I believe there is a very good chance that, in the years to come, the APNIC community will look back on its creation as a critical milestone. In 2021, I hope the community will begin to see the potential opportunities it provides to the region.

On behalf of the APNIC EC, membership and community, I would again like to thank Professor Murai for initiating this very exciting development, and I reiterate APNIC's commitment to working together with the Foundation and the Trust for the development of the Internet in the Asia Pacific.

**Looking ahead**

It's clear the challenges we face from the pandemic are far from over as we enter 2021. This means that face-to-face gatherings and conferences will be unlikely, but the positive spirit of online cooperation we saw in 2020 will hopefully continue.

I am looking forward to the day that we can all gather again as one community for an APNIC conference. There will be many missed celebrations to catch up on and friends to see. Until then, you can of course still contact me and the rest of the EC with any feedback you have. We are your representatives and are here to listen.

Thank you to all the staff at the Secretariat for you hard work in 2020. The achievements in this report show strong resolve during a trying year.

And thank you again to all Members and the community for your continued support of APNIC.

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

# Vision and Mission

APNIC's Four Year Strategic Plan (2020-2023) introduced an updated Vision and Mission, and a new structure for activities under five strategic pillars (detailed on the following page).

## 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.

## 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.

# 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.

# APNIC Workstreams

The Four Year Strategic Direction (2020-2023) defines 18 workstreams, across the 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 at a Glance

**2020**

## Training

3E.3

Live online training

**46** live courses

**2,434** participants

**18** live webinars
**2,548** attendees

## IPv4 reclaimed

2A.4

**v4**

**1.1m**

IPv4 addresses were **reclaimed**

## Blog

4A.1

Record Blog views

**64,778** /month

## Available Resources

2A.1

**IP**

**0.79%** IPv4 | **91.8%** IPv6 | **3.59%** ASN

## RPKI

3E.6

Members with ROAs

**50.67%**

↑ up

**86%**

## IPv6 Growth

2A.1

**v6**

Members with IPv6 addresses

**66.32%**

Asia Pacific IPv6 capability

**35.3%**

**New information tools
DASH/NetOX/ROV monitor**

4A.2

## Networking From Home

3C.1

**4** events **1,219** participants

from **45** economies

**ISO9001 QMS passed**

5B.3

# Financial Performance Summary

OPERATING EXPENSES BY OUTCOME AREA

| | Actual | Percentage |
|---|---|---|
| **MEMBERSHIP** | $4,005,842 | 19% |
| | Budget | |
| **REGISTRY** | $1,954,855 | 9% |
| | Budget | |
| **DEVELOPMENT** | $6,909,943 | 32% |
| | Budget | |
| **INFORMATION** | $1,575,193 | 7% |
| | Budget | |
| **CAPABILITY** | $7,336,436 | 34% |
| | Budget | |

$Millions (AUD)

0   2   4   6   8   10
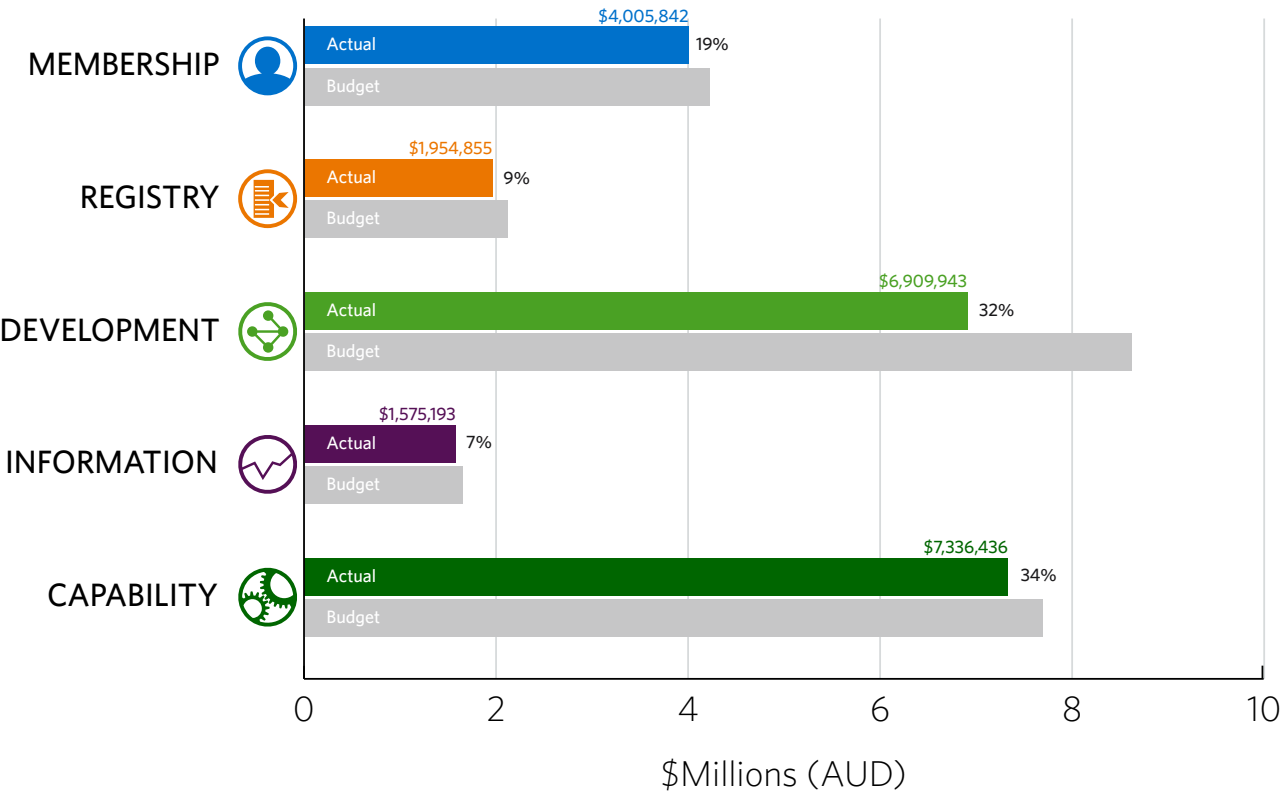
Note: Some numbers presented in this chart may not add up precisely due to rounding.

APNIC categorized its expenses under the five pillars and 18 workstreams detailed on page x.

The chart on this page illustrates 2020's actual operating expenses compared to the budget in the 2020 Activity Plan. The percentage for each area indicates the proportion of the total budget it represents.

For more details on APNIC's 2020 finances, please refer to pages 87–90 to view:

● Financial Report by Activity
● Statement of Financial Position
● Statement of Income
● Cash Flow Statement

# 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.
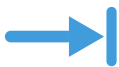
'Investments' are discrete project activities that result in new products, services, or improvements to APNIC services.

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).**

| | | Budget | Actual |
|---|---|---|---|
| **1** | FTE | 47.40 | 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. 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.

**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

## 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

1A. Member Services
1B. Membership Products
1C. Membership Reporting

## MEMBERSHIP - SUMMARY

|  | Budget | Actual |
|---|---|---|
| FTE | 17.55 | 17.91 |
| Expenses | $4,222,796 | $4,005,842 |
| CAPEX | – | – |

# 1A  **Member Services**

## OPERATIONS

### 1.  Member services

The Member Services team handled 11,947 tickets created by Member and community enquiries, 2,362 voice calls (phone and skype), and 3,479 online chat sessions. In addition, more than 9,966 Member invoices and receipts were processed.

The APNIC Helpdesk maintained its standing commitment to respond to Member queries within two business days.

Helpdesk service satisfaction remained high with 92.3% of respondents providing 'excellent' and 'above average' scores, and 4.5% 'below average' and 'poor' scores. All negative feedback is actively resolved by Member Services staff.

Twenty-six cases of attempted fraud in new Member applications were detected and prevented.

## RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 9.80 | 9.35 |
| Expenses | $2,461,269 | $2,301,059 |
| CAPEX | – | – |

# **Member Services** – continued

MEMBERSHIP GROWTH
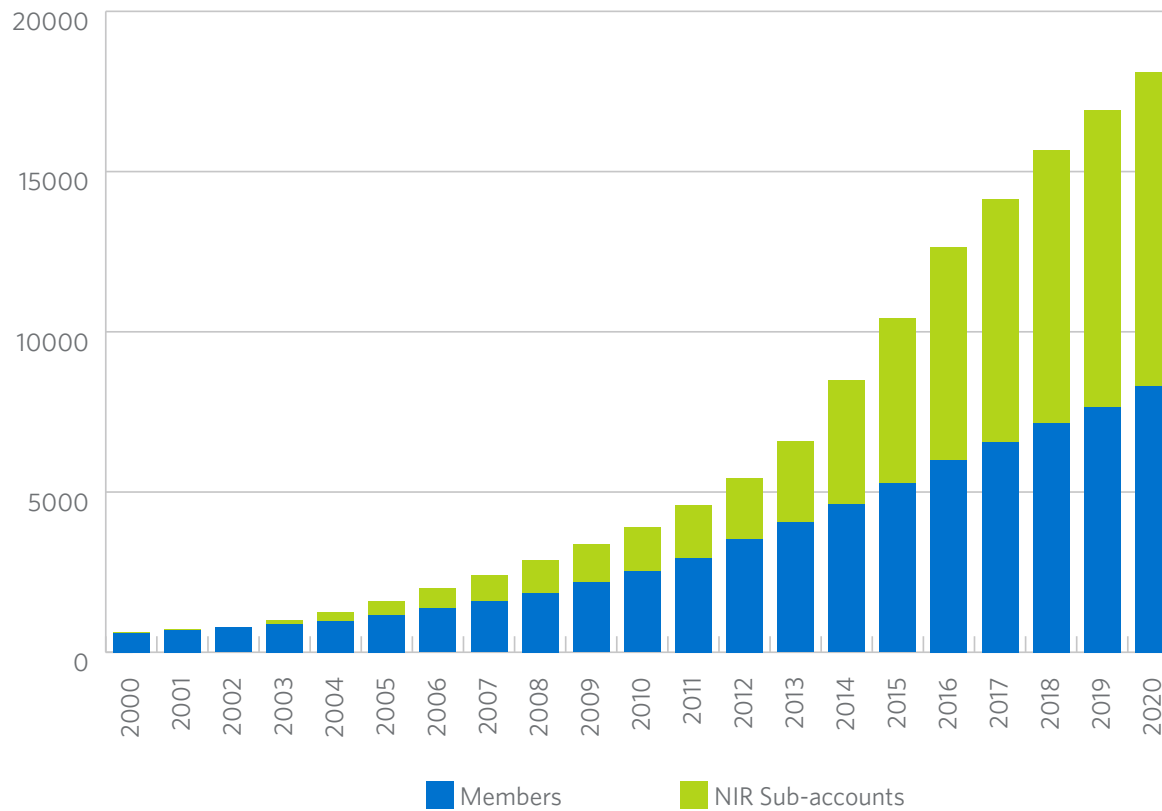


At the end of 2020, APNIC direct membership stood at 8,341, an increase of 7.3% on 2019. In addition, there were 9,972 NIR sub-accounts, after growth of 9.4% in 2020.

Total combined membership was 18,313.

# Member Services – continued

MEMBERSHIP INDUSTRY TYPE

**1,998** Hosting/Data centre

**881** Telecommunications/Mobile operator

**589** Enterprise/Manufacturing/Retail

**510** Banking/Financial

**383** Software vendor

**359** Academic/Educational/Research

**296** Government/Regulator/Municipality

**218** Media/Entertainment

INDUSTRY TYPE

**2,529** Internet Service Provider (ISP)

**85** Non-profit/NGO/Internet community

**90** Other

**135** Industrial (construction, mining, oil)

**42** Domain names registry/Registrar

**52** Hardware vendor

**11** NREN/Research network

**68** Internet Exchange Point (IXP)

**133** Infrastructure (transport/hospital)

**616 OTHER**

The Membership Industry Type statistics include both Members and Non-Member accounts.

# 1A **Member Services** – continued

## OPERATIONS

### 2. Member experience

A monthly review of Member feedback on APNIC products and services across all channels was established. An independent third-party audit on the accessibility of APNIC websites was also completed.

### 3. Membership development

New Member outreach was conducted at APRICOT 2020 and at NOGs including SANOG 35, JANOG 45 and MMIX and MMNOG Forum 2020. APNIC also participated in the first fully online ConnecTechAsia 2020.

The total number of new Members joining APNIC in 2020 was 827.

### 4. APNIC Survey

The 11th APNIC Survey was conducted from 13 to 31 July 2020. The survey questionnaire was developed following remote interviews with 41 Members and stakeholders across 24 economies (including all seven National Internet Registries (NIRs)). Both the survey and remote interviews were conducted by independent researcher, Survey Matters.

Survey participation increased by 31% compared to 2018, with 1,624 responses; and 35% of respondents used the translated versions (available in 16 languages). The final results were reported at APNIC 50.

A snapshot of the survey results is included on the following page.

## 1A **Member Services** – continued

APNIC SURVEY SNAPSHOT

### RESPONSE FIGURES

**1,624**
responses received

**73%**
of responses from
APNIC Members or
Account Holders

35% of responses
in language other
than English

**96%**
of responses from
the Asia Pacific
economies served
by APNIC

4% Non-APNIC regions
16% East Asia
18% Oceania
27% South East Asia
35% South Asia

### IPv6 DEPLOYMENT

IPv6 deployment
plans of respondent
organizations

20% IPv6 fully deployed
23% Deployed IPv6 in its core network
35% No deployment plan
32% Deployment plan in place

### TRAINING

**67%**
Want online training on
RPKI deployment

**49%**
Want APNIC to increase
security training to best
assist with security challenges

**Training** was rated the **#1** most important
APNIC activity to encourage **IPv6 adoption**

### ROUTING SECURITY DEPLOYMENT

| | RPKI | ROA | ROV |
|---|---|---|---|
| Deployed | 22% | 26% | 9% |
| Have plans to deploy | 16% | 13% | 15% |
| Aware but not deployed | 32% | 25% | 25% |
| Not Aware | 31% | 36% | 50% |

Not Aware · Aware but not deployed · Have plans to deploy · Deployed

### SECURITY CHALLENGES

- 41% DDoS attacks
- 40% Phishing, spam, malware, ransomware
- 30% Staff lack awareness of security issues
- 23% Blacklisting of our IP addresses
- 20% Lack of expertise in implementing enterprise-wide security programs
- 20% Routing security

### MEMBER SATISFACTION

| | Quality of Services | Value of Services | Value of Membership |
|---|---|---|---|
| Excellent | 39% | 40% | 39% |
| Good | 45% | 43% | 41% |
| Above average | 9% | 8% | 10% |
| Neutral | 7% | 8% | 10% |

Neutral · Above average · Good · Excellent

## 1A **Member Services** – continued

### SUCCESS MEASURES – 1A

| | Results | Status |
|---|---|---|
| **Targets** | | |
| **Maintain helpdesk SLA of 48-hour business day response to enquiries** | 99.98% achieved | ✓ |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback, and less than 5% "poor and below average" feedback** | 92.3% excellent and above average<br>4.5% poor and below average | ✓ |
| **Total number of Members at end of 2020 to match or exceed the 2020 budget assumption of 8,262** | 8,341 Members | ✓ |
| **Member outreach activities in 90% of economies with APNIC Members** | 90% economies covered | ✓ |
| **Baseline measurement of membership data currency and accuracy established** | Completed | ✓ |
| **Successful completion of the APNIC Survey 2020, with at least 10% more respondents** | Completed | ✓ |
| **APNIC Survey follow-up actions monitoring page update**d | Completed | ✓ |

# 1B  **Membership Products**

## OPERATIONS

### 1.  Membership product management ↻

A new MyAPNIC dashboard for APNIC tools, services and activities was released in February, with access authentication to MyAPNIC migrated to the 'APNIC Login' Single Sign On (SSO).

APNIC completed the implementation of Incident Response Team (IRT) email validation for prop-125, which requires all Members to validate their IRT email every six months. An 'abuse-c' attribute was reinstated to every parent resource object and will reference the IRT object via a newly created 'Role' object.

The prop-125 deployment also included an alternative validation method for IRT objects and changes to the validation cycle (for revalidation every six months) following Member feedback.

Improvements to the membership application form were launched in June, with a 30% decrease in correspondence required to process a new application, and a 70% decrease in fake applications, compared with the same period in 2019. New features added to the form included the ability to add a trading name.

Other system improvements included a new internal API to allow Member data to be shared between authenticated internal applications, and full automation of transfer invoicing.

## RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 7.15 | 7.45 |
| Expenses | $1,127,922 | $1,256,789 |
| CAPEX | – | – |

## 1B  **Membership Products** – continued

### SUCCESS MEASURES – 1B

| | Results | Status |
|---|---|---|
| **Targets** | | |
| Creation of baseline metrics, segmentation and categorization of RT tickets | Completed | ✓ |
| Identification and analysis of online features with high latency; issues solved where possible | Completed | ✓ |
| Create a baseline measurement of "mean time to deploy" | Completed | ✓ |

## 1B **Membership Products** – continued

### INVESTMENTS

#### 2. Online community platform →|

APNIC Academy and training attendees were selected as an initial use case audience to develop a prototype online participation platform for community members to share knowledge and experience. User needs will be validated before the prototype is completed in 2021.

A Help Centre platform, providing FAQs and other product and service information, was developed for a 2021 launch.

#### 3. Election system →|

Following a trial with 73 community participants, BigPulse was implemented and integrated into MyAPNIC ahead of the EC election at APNIC 49 in February 2020 (replacing the previous in-house online election system).

All EC election voting, including proxy appointment, was completed online by 913 participants without any paper forms required. The total votes received in this election (13,063) was the highest on record.

Online voting was also successfully conducted on the BigPulse platform for the NRO NC election at APNIC 50.

| 2020 Investment | Member Benefit |
|---|---|
| **Online community platform** | Network operators can learn from each other's experience and save time researching multiple sources<br><br>Allows network operators to find answers |
| Status: **Ongoing** | |

| | |
|---|---|
| **Election system** | Improved user experience for voting and elections<br><br>Improved trust and auditability of APNIC elections |
| Status: **Completed** | |

## 1C Membership Reporting

### OPERATIONS

1. Planning and reporting

   The 2020-2023 Strategic Plan, 2020 Activity Plan and Budget, and 2019 Annual Report were presented at the 2020 Annual General Meeting in February. The 2020 Budget was revised due to the impacts to the COVID-19 pandemic and was reviewed monthly during 2020.

   Event Wraps (all but two) were published in line with the KPI.

   The 2021 Activity Plan and Budget was approved by the EC in December 2020.

### RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 0.60 | 1.11 |
| Expenses | $633,245 | 447,994 |
| CAPEX | – | – |

## 1C  **Membership Reporting** – continued

SUCCESS MEASURES – 1C

| | Results | Status |
|---|---|---|
| **Targets** | | |
| **On-time publishing of required reports at the APNIC AGM and at APNIC 50** | Completed | ✓ |
| **Publishing of EC Minutes within two months of each EC meeting** | Completed | ✓ |
| **Event Wraps published for 100% of reportable events within one month of event** | 65/67 published within one month | ✕ |

# 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

2A. Registration Services
2B. Registry Products
2C. Policy Development

## REGISTRY - SUMMARY

|  | Budget | Actual |
|---|---|---|
| FTE | 9.85 | 10.60 |
| Expenses | $2,111,516 | $1,954,855 |
| CAPEX | – | – |

# 2A **Registration Services**

## OPERATIONS

### 1. IPv4, IPv6 and ASN delegation and registration services ↻

APNIC processed 1,467 IPv6 delegations, 2,005 IPv4 delegations, 1,132 ASN assignments, 523 IPv4 market transfers (424 within the Asia Pacific region and 99 between APNIC and other RIR regions), and 156 Merger and Acquisition IPv4 transfers. The proportion of APNIC Members that now hold IPv6 resources is 66.32%, an increase of 5.6% on the previous year.

APNIC received two blocks of ASNs from IANA (2,048 ASNs) in October. No additional IPv4 or IPv6 allocations were received from IANA in 2020.

At the end of 2020, APNIC had allocated 99.21% of its total IPv4 number resource pool (leaving 0.79% available), 8.2% of its IPv6 pool (leaving 91.8%) and 96.41% of its ASN pool (leaving 3.59%). The size of the available IPv4 pool increased in 2020 following IPv4 reclamation work (see 2A.4).

The status of APNIC's Internet number resource pools at the end of 2020 is below.

| | Total at 1 Jan 2020 | From IANA | Transfers in | Transfers out | Total at 31 Dec 2020 | Total delegated | Total reserved | Total available |
|---|---|---|---|---|---|---|---|---|
| **IPv4 (/24s)** | 3,479,169 | 0 | 4,240 | 792 | 3,482,617 | 3,451,972 | 14,994 | 15,651 |
| **IPv6 (/32s)** | 1,067,008 | 0 | 0 | 0 | 1,067,008 | 87,574 | 125,887 | 853,547 |
| **ASNs** | 19,094 | 2,048 | 2 | 1 | 21,143 | 18,409 | 0 | 2,734 |

## RESOURCING

| | Budget | Actual |
|---|---|---|
| FTE | 3.70 | 4.78 |
| Expenses | $645,389 | $664,335 |
| CAPEX | – | – |

## 2A **Registration Services** – continued

### IPv4 DELEGATIONS
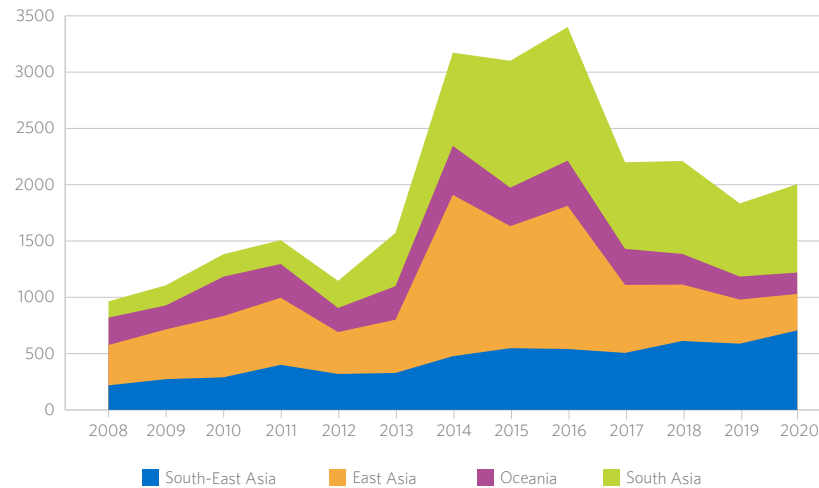


Legend: South-East Asia | East Asia | Oceania | South Asia

### 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
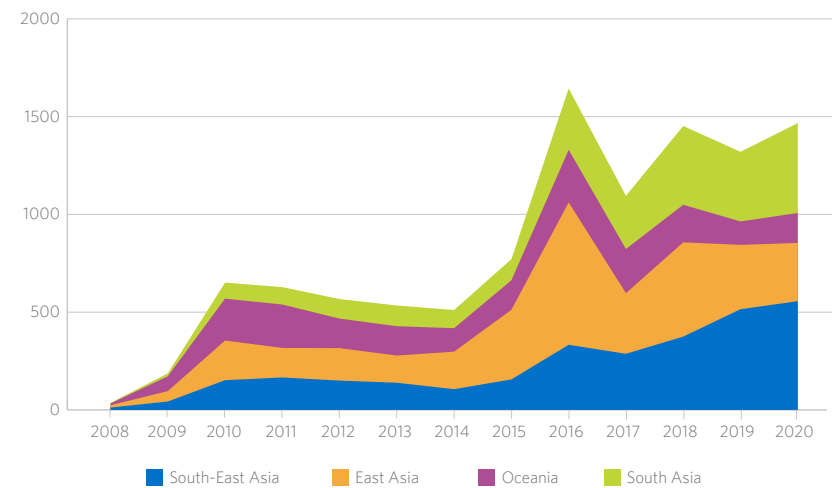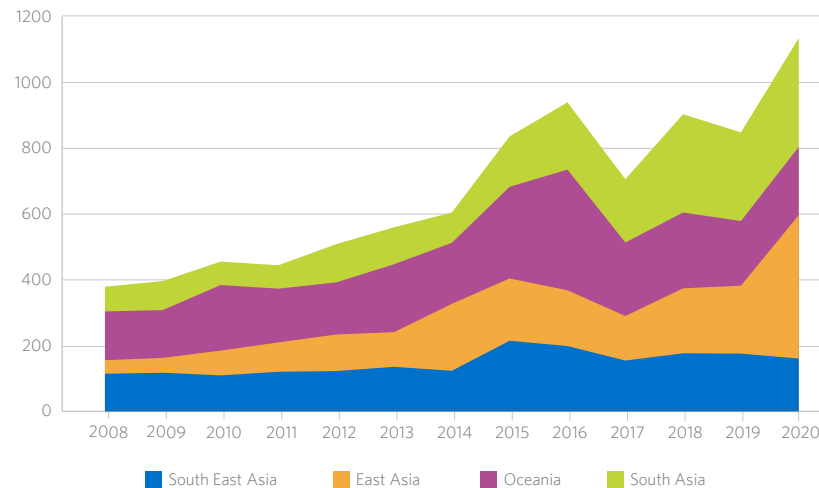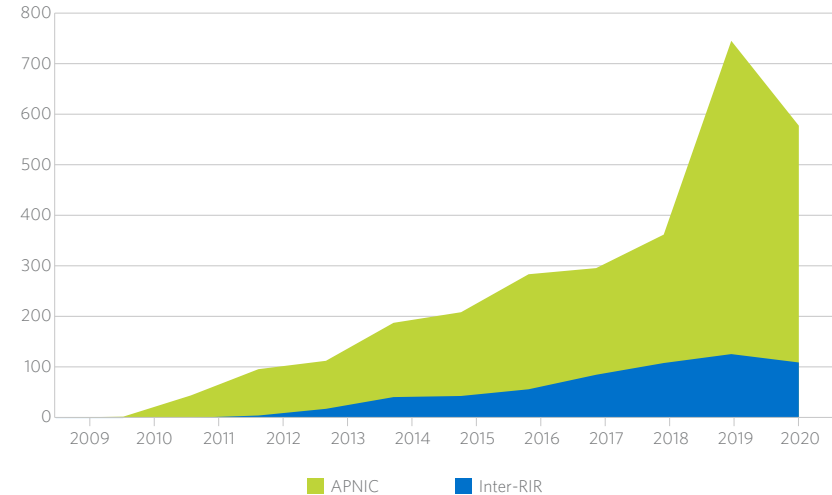
## 2A **Registration Services** – continued

### MARKET TRANSFERS
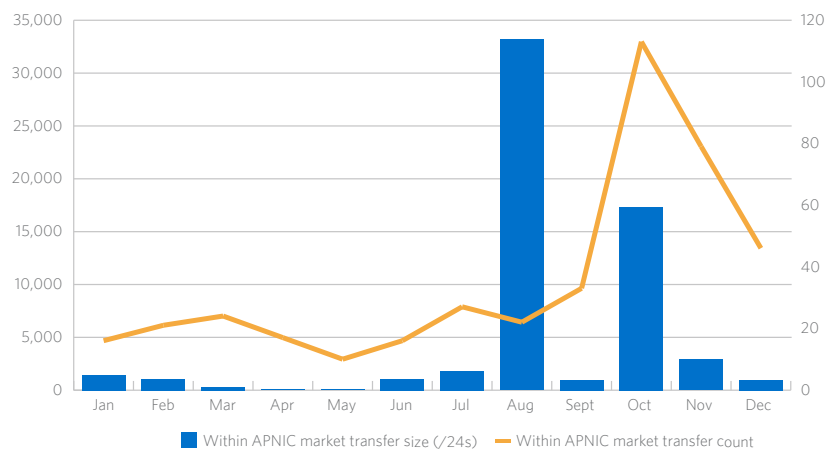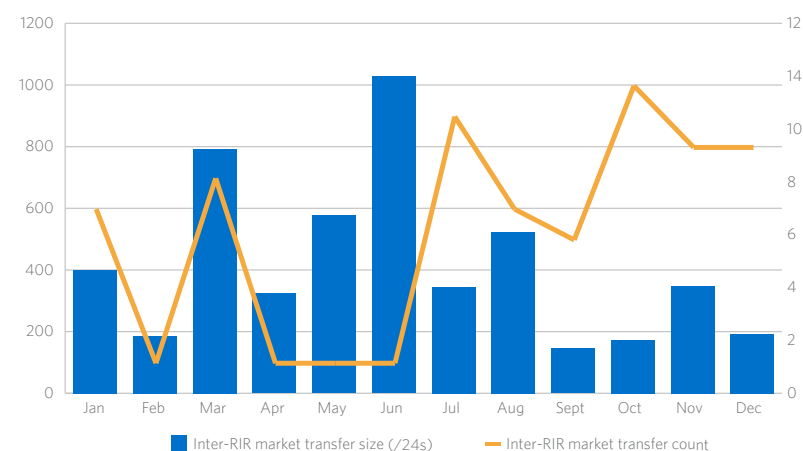


Within APNIC market transfer size (/24s) — Within APNIC market transfer count

### M&A AND HISTORICAL TRANSFERS



Transfer size (/24s) — Transfer count

### INTER-RIR TRANSFERS



Inter-RIR market transfer size (/24s) — Inter-RIR market transfer count
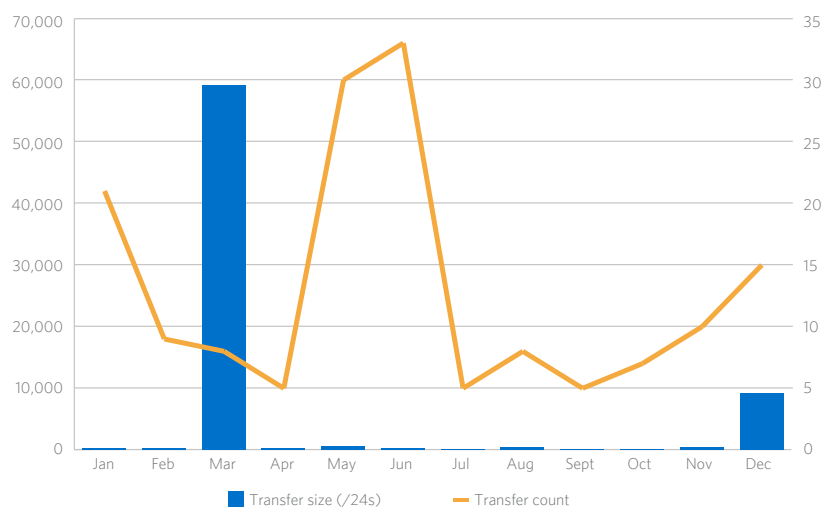
The creation of the Asia Pacific Internet Development Trust (APIDT) and its associated IPv4 transfers are visible.

- A single large historical resource transfer (/9 + /10 + /11) was completed in March to APIDT.
- A /9 was transferred in August, and a /10 in October, both from APIDT.

No large inter-RIR market transfers occurred during 2020.

# 2A **Registration Services** – continued

AVAILABLE IPV4 ADDRESS SPACE



Legend: ■ Available  ■ Reserved
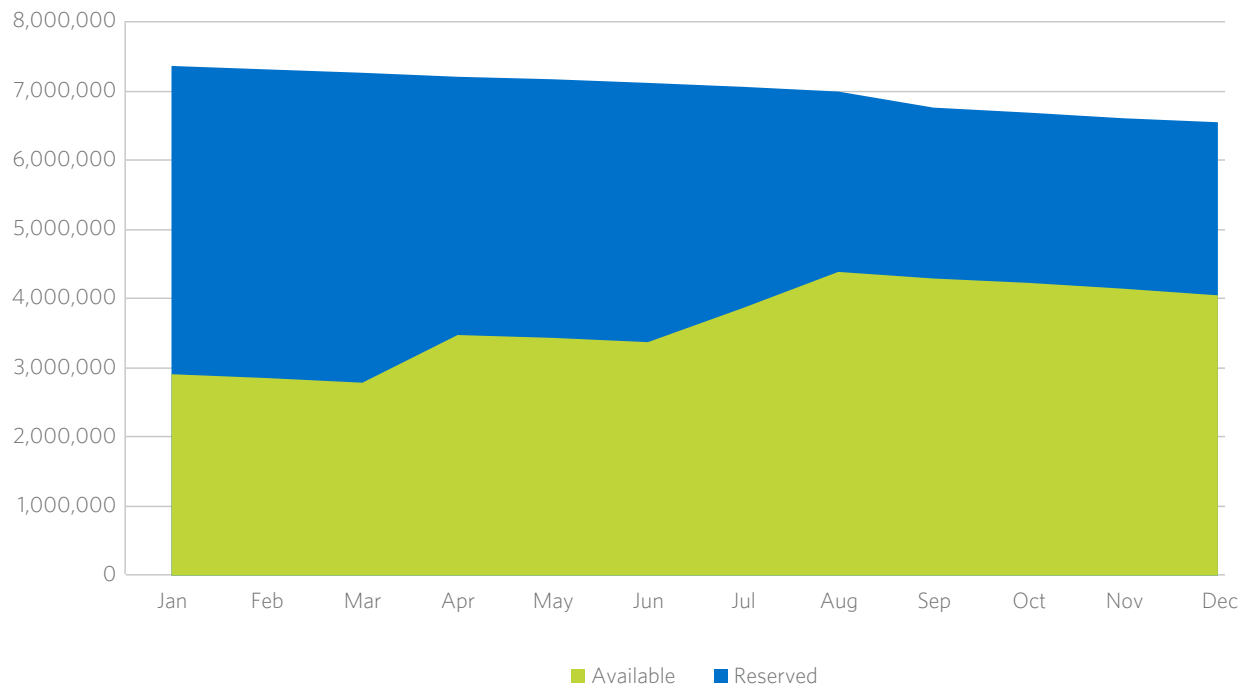
APNIC's 'last /8' block of IPv4 address space (103.0.0.0/8) was delegated by IANA to APNIC on 3 February 2011. On 15 April 2011, delegations began from this block of addresses under the terms of prop-062, which restricted existing and new Members to requesting a maximum of a /22.

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, further reducing consumption.

Around 1.1 million historical IPv4 addresses were voluntarily returned to the available pool in 2020 as a result of APNIC's IPv4 reclamation efforts.

## 2A **Registration Services** – continued

OPERATIONS

2. Resource Quality Check (RQC)

Members can check the 'quality' (routing history, transfer history, geolocation, blacklist information) of Internet number resources  delegated by APNIC through RQC functionality in the Network Operators ToolbOX (NetOX). Usage measurement was implemented in March 2020 and the RQC page received 1,968 views from March-December, with 960 unique resources queried.

3. Maintain correct and current registry data

All Members now have an organization object associated with their Internet number resources in the APNIC Whois Database. APNIC helped 500 Members to create their organization object.

The NIRs were also assisted with corrections to transfer records and maintaining accuracy of historical Internet number resources.

## 2A **Registration Services** – continued

4. **Reclaiming unused IPv4 address space** ⟳

Reclamation work progressed under three categories of unrouted IPv4 space:

● Current address space, delegated under the last /8 policy less than five years ago.

• Around 370,000 unadvertised IPv4 addresses were identified, held by 604 Members These Members were contacted and asked to return these addresses if not needed.

● Current address space, including last /8 space delegated more than five years ago.

• Around 54 million unadvertised IPv4 addresses were identified, held by 1,309 Members. These Members were contacted and asked to either return the resources to APNIC or make them available for transfer.

● Historical address space.

• Around 2.3 million unadvertised historical IPv4 addresses were identified and efforts to contact the resource custodians commenced in 2020. If the custodians cannot be contacted, the resources will be marked for recovery in 2021.

• Around 1.1 million IPv4 addresses were voluntarily returned to the available pool following APNIC contact.

A new service was implemented to allow APNIC Members to list IPv4 address space available for market transfer.

## 2A **Registration Services** – continued

### SUCCESS MEASURES – 2A

| Targets | Results | Status |
|---|---|---|
| **Maintain Helpdesk SLA of 48-hour business day response to enquiries** | 99.98% achieved | ✓ |
| **Maintain service satisfaction ratings of at least 92% "excellent and above average" feedback and less than 5% "poor and below average" feedback** | 92.3% excellent and above average<br>4.5% poor and below average | ✓ |
| **Percentage of Members holding IPv6 address space increased to 65%** | 66.32% | ✓ |
| **Measurement system for APNIC RQC service implemented** | Completed | ✓ |
| **A method to measure whois contact accuracy and currency established** | Completed | ✓ |
| **Attempt contact with all (2,800+) identified resource holders with potentially unused IPv4 addresses, to offer options for return or transfer of resources** | Completed | ✓ |

## 2B Registry Products

OPERATIONS

1. Internet number resource management ⟳

The APNIC Registry Management System (ARMS) was updated to support the following:

- Return of terminated Internet number resources for subsequent redelegation
- Audited correction of errors in historical resource records
- Transfer restrictions of IPv4 addresses in 103/8 to meet the requirements of prop-116

2. Registry product management ⟳

RDAP (Registration Data Access Protocol) was successfully deployed to the cloud, resulting in significant reduction of round-trip times (RTT) and availability improvement.

RPKI resilience was improved with the adoption of Cloudflare 'Spectrum' and Google Cloud for delivery of the RPKI Repository Delta Protocol (RRDP) and RSYNC service in AS0. It will be deployed in 2021 to the main RPKI service.

A review of the Resource Public Key Infrastructure (RPKI) Certification Practice Statement began, for completion in 2021. The work was shared with the RIPE NCC as part of RIR cooperation on RPKI resilience.

VNNIC was assisted with the deployment of a new registry system to improve data alignment with APNIC. Sixteen meetings (face-to-face at APNIC 49, and online) were also held with NIRs during the year on registry product services.

RESOURCING

| | Budget | Actual |
|---|---|---|
| FTE | 5.30 | 5.11 |
| Expenses | $825,807 | $909,329 |
| CAPEX | – | – |

## 2B **Registry Products** – continued

SUCCESS MEASURES – 2B

| Targets | Results | Status |
|---|---|---|
| **Successful implementation of pool service changes for historical record amendment** | Completed | ✓ |
| **Seven product development engagements at APNIC conferences** | 16 engagements completed | ✓ |
| **RDAP service deployed to the cloud in two regions** | Deployed to three regions | ✓ |
| **Fifteen user experience interviews for registry products and APRICOT and IETF meetings** | 13/15 interviews completed | ✗ |
| **RPKI Certification Practice Statement review completed** | 2021 scheduled completion | ✗ |

## 2B **Registry Products** – continued

### 3. RPKI AS0 ROA →

A public testbed of the AS0 ROA (according to prop-132) was deployed for APNIC 49 and the production service was deployed before APNIC 50.

APNIC has continued to liaise with the RIRs where AS0 ROA proposals are under discussion.

### Additional investments

APNIC provided funding to OpenBSD to implement RRDP in its codebase. This implementation was completed in 2020 and will be released in 2021.

APNIC became an annual bronze supporter for NLnet, supporting development of RPKI 'Krill' (Certificate Authority) and 'Routinator' for Relying Parties. APNIC also provided funding for NLnet to implement Resource Tagged Attestations (RTA), which was released in late 2020.

| 2020 Investment | Member Benefit |
|---|---|
| **RPKI AS0 ROA** | Implementation of agreed mechanism to help avoid address hijacking and other 'bogons' |
| Status: **Completed** | |

# 2C Policy Development

## OPERATIONS

### 1 Policy development

The APNIC Policy SIG considered the following proposals in 2020.

| Proposal | Result |
| --- | --- |
| **prop-130: Modification of transfer policies** | Presented at APNIC 49. Did not reach consensus and returned to mailing list for further discussion. Discussion at APNIC 50 deferred at request of proposal's author. |
| **prop-133: Clarification on Sub-Assignments** | Presented at APNIC 49. Did not reach consensus and returned to mailing list for further discussion. Discussion at APNIC 50 deferred at request of proposal's author. |
| **Prop-134: PDP Update** | Presented at APNIC 49. Did not reach consensus and withdrawn by author. |

At APNIC 49, Ching-Heng Ku and Bertrand Cherrier were re-elected as Policy SIG Co-Chairs. Following his election to the APNIC Executive Council (EC), Sumon Ahmed Sabir resigned as Policy SIG Chair, and was replaced by Bertrand Cherrier as Acting Chair.

### 2. Policy implementation

Implementation of prop-125: 'Validation of "abuse-mailbox" and other IRT emails' and prop-132: 'RPKI ROAs for unallocated and unassigned APNIC address space' was completed as planned. More information is available in sections 1B.1 and 2B.3.

### 3. Policy analysis

Impact assessments for the three policy proposals discussed at APNIC 49 (prop-130, prop-133 and prop-134) were presented during the meeting. APNIC staff also presented observations on the current experimental allocations policy and on consolidation trends identified in transfers of the last /8 (103/8) address space.

## RESOURCING

| | Budget | Actual |
| --- | --- | --- |
| FTE | 0.85 | 0.71 |
| Expenses | $640,320 | $381,191 |
| CAPEX | – | – |

## 2C **Policy Development** – continued

SUCCESS MEASURES – 2C

| Targets | Results | Status |
|---|---|---|
| **Two Policy SIG meetings held** | Completed | ✓ |
| **Delivery of two policy analysis presentations at SIG meetings** | Completed | ✓ |
| **High satisfaction rating from Policy Chairs in annual review of policy support** | 5/5 star rating | ✓ |
| **Meeting agreed implementation timelines 100% of the time** | Completed | ✓ |
| **Publishing of a 'policy proposals analysis' before each Policy SIG meeting** | Completed | ✓ |
| **Achieve a service quality rating of 5.75 or above for Policy Development in the APNIC Survey** | 5.98 | ✓ |

# 2C **Policy Development** – continued

## INVESTMENTS

4. **Policy documentation review** ⇥

A review of policy documentation was completed and an overview of the report findings was presented at APNIC 50 and shared on the Policy SIG mailing list. A further two-hour community consultation was held online to discuss the findings of the report, with a public editorial review of the findings launched in December 2020.

A meeting of all SIG Chairs (Policy, Cooperation, NIR and Routing Security) to discuss recommended changes to SIG elections in the review report was held in October, with further community discussion scheduled for APNIC 51.

**www.apnic.net/policy**

| 2020 Investment | Member Benefit |
|---|---|
| **Policy documentation review** | Improved policy documentation that is easier to use and understand |
| Status: **Ongoing** | |

# 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

3A. APNIC Conferences
3B. Foundation Support
3C. Community Engagement
3D. Community Participation
3E. APNIC Academy
3F. Infrastructure Support

## DEVELOPMENT - SUMMARY

|  | Budget | Actual |
|---|---|---|
| FTE | 23.55 | 22.06 |
| Expenses | $8,622,717 | $6,909,943 |
| CAPEX | $396,000 | $42,453 |

# 3A **APNIC Conferences**

## OPERATIONS

### 1. APNIC conferences

APRICOT 2020 (incorporating APNIC 51) was held in Melbourne, Australia, from 12 to 21 February 2020. The event welcomed 563 delegates with an additional 2,498 views from remote participants.

APNIC 50 was held wholly online due to the COVID-19 pandemic and welcomed 473 remote attendees (via Zoom) with an additional 4,003 views via YouTube. A simplified conference registration was implemented alongside web platform development and integration of multiple systems to support a 100% online conference experience.

Several community meetings were held at the conferences from partner organizations including FIRST, DotAsia, APIX, APStar, ISOC, and APNG.

With support from JPNIC, an RPKI Deployathon was held at APRICOT 2020 for 40 participants. The APNIC Foundation supported four fellows from IXPs in Bhutan, Nepal, Myanmar and Fiji to attend the event.

The third APNIC Hackathon was also held at APRICOT 2020, attracting 13 participants who worked on three projects under the 'Network Tools' theme.

An election for one available NRO NC position was held at APNIC 50 with Shubham Saran elected to serve a two-year term, beginning 1 January 2021. The APNIC EC subsequently appointed Nicole Chen to the second available NRO NC seat for a one-year term beginning 1 January 2021.

## RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 4.60 | 4.36 |
| Expenses | $1,405,301 | $1,082,485 |
| CAPEX | $1,000 | $4,174 |

|  | APRICOT 2020 | APNIC 50 |
|---|---|---|
| **Onsite participants** | | |
| Total number of onsite delegates | 563 | - |
| Economies represented | 60 | 48 |
| APNIC Member organizations represented | 142 | 120 |
| | | |
| **Remote participants** | | |
| Zoom | 185 | 473 |
| YouTube views | 2,313 | 4,003 |
| YouTube minutes viewed | 29,190 | 43,567 |

conference.apnic.net

# 3A **APNIC Conferences** – continued

## SUCCESS MEASURES – 3A

| Targets | Results | Status |
|---|---|---|
| **Delivery of two conferences (in Oceania and South Asia)** | Completed | ✓ |
| **Achieve attendance of 1,000 delegates** | 1,036 attendees | ✓ |
| **Achieve 4,000 remote conference session views** | 6,974 views | ✓ |
| **Achieve a minimum average conference participant satisfaction survey rating of 90%** | 94.8% | ✓ |
| **Achieve a service quality rating of 6.0 or above for APNIC Conferences in the APNIC Survey** | 6.33 | ✓ |

## 3A **APNIC Conferences** – continued

INVESTMENTS

2. **Fellowships** ➞|

Due to APNIC 50 being held online, travel fellowships were not offered, but will reopen in 2021 for APNIC 52.

| 2020 Investment | Member Benefit |
|---|---|
| **Fellowships** | Opportunities for more Members to attend APNIC conferences |
| Status: **Deferred** | |

# 3B Foundation Support

## INVESTMENTS

### 1. Operational and administrative support →|

In addition to two full-time staff seconded to the Foundation to manage operations and projects, project budgets were used to hire additional administrative support and project coordination positions.

Secretariat staff provided financial, HR and communications support for various projects. Staff also supported the creation of the Asia Pacific Internet Development Trust (APIDT).

### 2. ISIF Asia contribution →|

APNIC provided USD 120,000 to support four Network Operations Research Grants (USD 30,000 each).

Selected projects

| | | |
|---|---|---|
| Open Lawful Intercept for Asia Pacific | New Zealand | University of Waikato |
| IPv6 Deployment at Enterprises | India | IIESoc |
| Collaborative Honeynet Threat Sharing Platform | Indonesia | Swiss German University |
| Experiment and improve reinforcement learning algorithms to enhance anomalous network behaviour detection | Australia | TeleMARS Pty Ltd |

| 2020 Investment | Member Benefit |
|---|---|
| **Operational and administrative support** | A well-run Foundation to deliver increased funding for development projects in the APNIC region |
| Status: **Completed** | |
| **ISIF Asia contribution** | Recognition and funding of innovation Internet projects that benefit the community

Research projects that help inform Members' decisions around Internet operations |
| Status: **Completed** | |

## RESOURCING

| | Budget | Actual |
|---|---|---|
| FTE | 1.15 | 1.41 |
| Expenses | $865,463 | $972,229 |
| CAPEX | – | – |

## 3C Community Engagement

### OPERATIONS

1. Technical community support ↻

APNIC participated in 19 Network Operator Group (NOG) events during 2020, providing sponsorship, speakers, trainers, and technical support.

In response to the cancellation of several NOG meetings due to the pandemic, APNIC developed the 'Networking from Home' (NFH) series of four, half-day, online technical events serving 21 NOG communities in four sub-regions.

The four NFH events attracted 1,219 participants from 45 economies, with 91% of attendees from the Asia Pacific. Average watch time for the events was 1hr 40mins (67% of each 2.5hr event). Following the success of the NFH events, APNIC provided technical support and advice to six NOGs to assist them with holding online events.

APNIC helped local volunteers establish the Papua New Guinea Network Operators Group (PNGNOG) as an open, community-led initiative, helping launch its first event, PNGNOG v0.1, in June.

Work continued with local communities in the Maldives to help establish an Internet Exchange Point (IXP), and in Samoa, to re-establish its IXP. Sponsorship was also provided to PeeringDB, IXPDB, Peering Asia and APIX.

Staff participated in NREN activities, including the APAN Technical Committee for APAN 50 and APAN 51, and Co-Chaired the APAN Security WG.

**NETWORKING FROM HOME**

### RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 7.15 | 5.69 |
| Expenses | $2,493,689 | $1,776,609 |
| CAPEX | – | – |

# 3C **Community Engagement** – continued

2. Security community support ⟳

APNIC participated in 35 security engagements and 12 CERT engagements including:

● Organizing FIRST TC tracks at APRICOT 2020 and APNIC 50; moderating conference sessions at the FIRST Cyber Threat Intelligence Summit, the FIRST Regional Symposium Africa and Arab Region Plenary, and the Annual FIRST Conference.

● Training with the CERT/CSIRT community including workshops with the Pakistan Telecom Authority, KrCERT/CC, and BTCIRT. Presentations were made at Sri Lanka CERT Cyber Security Week, CNCERT International Partnership in Emergency Response Conference, and the CSIRT.id Virtual Seminar.

● Presenting at the ITU Global Cyberdrill 2020 webinar on cyber crisis management planning and improving the maturity of national CSIRTs.

● Capacity building work with the law enforcement and public safety community including UCENET and Interpol, the Hong Kong Police Force, Australian Federal Police, and the UN International Narcotics Control Board.

● Engagements in the Pacific region, including presentations and training for the Solomon Islands Government Data Centre, PaCSON, Cyber Safety Pasifika, and the Digital Pacific Conference.

APNIC also sponsored the NZITF Conference, Samoa IT Association Security Seminar, MNSEC 2020, and Shadowserver Foundation, for its data centre relocation and 2020 operations.

## 3C **Community Engagement** – continued

### 3. Internet organization cooperation

APNIC participated in all RIR meetings, ICANN meetings (ICANN 67, 68 and 69), and IETF meetings (IETF 107, 108 and 109). New AFRINIC CEO, Eddy Kayihura, also visited the APNIC offices following APRICOT 2020 for a series of meetings.

Collaboration activities with other RIRs included participation in 38 online meetings with NRO coordination groups, including the Internet Technical Collaboration Group (ITCG), Engineering Coordination Group (ECG), Resource Services Coordination Group (RSCG), Communication Coordination Group (CCG), Public Safety Coordination Group (PSCG) and the NRO EC.

Staff also participated in IANA Numbering Services Review Committee (RC) calls, the joint meeting of the NRO RSCG and Legal Team, the NRO EC virtual retreat, and provided crisis communications training to 10 AFRINIC staff.

## 3C **Community Engagement** – continued

### 4. Internet governance participation

Internet governance-related activities included:

- Organizing three sessions at the Asia Pacific Regional Internet Governance Forum (APrIGF); co-chairing the APrIGF Drafting Committee of the APrIGF Synthesis Document and virtual Townhalls, and participating in the Program and Fellowship Committees.
- Organizing and presenting at several IGF 2020 sessions, and participating in IGF open consultation and the Multistakeholder Advisory Group (MAG) meetings. APNIC staff were appointed to the MAG via the ITCG nomination committee and the IGF Support Association (IGFSA) Executive Committee.
- Participating in economy-level IGFs such as NetThing 2020 (Australia), NetHui 2020 (New Zealand), Hong Kong IGF 2020, China IGF 2020, Youth IGF India, bdIGF 2020, and TWIGF.
- Presenting and sponsoring Schools of Internet Governance (SIG), including PKSIG, inSIG, BDSIG, and APSIG.
- Authoring the chapter 'Putting the technical community back into cyber (policy)' of the Routledge Handbook of International Cybersecurity.

## 3C **Community Engagement** – continued

**5.** Government engagement ↻

APNIC engages with governments and inter-governmental organizations as a member of the technical community. APNIC offered technical perspectives on cybersecurity, Internet operations and IPv6 deployment at several events including:

- APECTEL 61 and APEC Security and Prosperity Working Group (SPSG) meetings
- ITU Global Symposium for Regulators 2020
- UN High Level Political Forum 2020
- Global Cyberdrill 2020
- ITU Regional Development Forum for Asia and the Pacific 2020.
- 2020 Global Cybersecurity Capacity Building Conference and GFCE Pacific Regional Meeting in Melbourne, and GFCE Annual Meeting 2020
- Meeting with Cambodia's Secretary of State from the Ministry of Posts and Telecommunications
- Meetings with the new Director of the ITU's Regional Office for Asia and the Pacific, and with the Secretary General of APT.

Discussions relating to the Internet numbers community were monitored at events including:

- Regional preparatory meetings for the ITU's WTSA 2020 and the 2021 WTDC
- 17th APT Telecommunication/ICT Development Forum (ADF-17)
- 20th APT Policy and Regulatory Forum (PRF-20)
- ITU World Telecommunication/ICT Policy Forum (WTPF)
- ITU Telecommunication Development Advisory Group (TDAG)
- ITU-T Study Groups 11 & 13

## 3C Community Engagement – continued

### SUCCESS MEASURES – 3C

| Targets | Results | Status |
|---|---|---|
| **Sponsor or participate in 30 technical community events including NOGs, Peering Forums and Research & Education community events** | 34 events | ✓ |
| **Facilitate and support two new/revived NOGs** | One new NOG | ✕ |
| **Sponsor or participate in 10 security community events** | 23 events | ✓ |
| **Support targeted development of three new/existing CERTs/CSIRTs** | 5 CERTs/CSIRTs | ✓ |
| **Ensure APNIC participation in each of the RIR meetings** | Completed | ✓ |
| **Provide APrIGF sponsorship and participate in APrIGF and IGF with workshop proposals, MSG/MAG participation, and speaking roles** | Completed | ✓ |
| **Participate in at least three national Internet governance initiatives** | 7 engagements | ✓ |
| **Provide sponsorship/speaker support to at least two schools of Internet governance** | 4 engagements | ✓ |
| **At least 12 engagements with governments and intergovernmental organizations, including capacity-building partnerships** | 37 engagements | ✓ |
| **At least six engagements with the Public Safety community** | 11 engagements | ✓ |

# 3D Community Participation

## OPERATIONS

### 1. Community-led processes ↻

Promotion of SIG meetings at APRICOT 2020 and APNIC 50 included email bulletins, social media promotion and blog posts.

At APNIC 49, 242 people participated in SIG meetings, and 391 joined online. At APNIC 50, 396 people participated in SIG meetings online. An additional 25 people joined the Policy SIG Chairs' online community consultation for the PDP review report in October.

Summaries of policies being discussed at APNIC 49, and the results, were published in eight languages.

The first meeting of the new Routing Security SIG was held at APNIC 49, and the SIG's charter agreed. Aftab Siddiqui was elected as Chair. There were four presentations at the Routing Security SIG at APNIC 50, including updates from the IETF SIDROPS Working Group and an AS0 implementation report from APNIC.

The scheduled IANA Numbering Services Review Committee (IANA RC) election for 2020 was deferred by the EC and the term of the current community-elected member, Bertrand Cherrier (Micro Logic Systems, New Caledonia), extended until 31 December 2021.

Satoru Tsurumaki was appointed by the EC to the IANA RC for a two-year term from 1 January 2021 to 31 December 2022.

## RESOURCING

| | Budget | Actual |
|---|---|---|
| FTE | 1.10 | 0.56 |
| Expenses | $203,283 | $194,046 |
| CAPEX | – | – |

# 3D **Community Participation** – continued

## 2. Online participation

Visitor numbers to apnic.net have steadily increased since April, while time on site has decreased over the same period. The top five visitor economies were the United States, India, China, Japan and Australia. Twenty-six percent of visitors used a mobile device to access apnic.net.

Social media promotion and blog posts helped attract 2,548 attendees to 18 APNIC Academy webinars, with 687 new users registering as a direct result.

Three live, 45-minute 'APNIC Academy Socials' were hosted on Facebook with guests from NTT, Reliance Jio, Virgin Media, Google, ACT Fibrenet, ISOC and APNIC technical staff. The video posts reached 120,720 people for a total of 22,952 minutes viewed, and 1,614 post engagements.

Community engagement with APNIC Social Media continued to grow:

| | | 2019 | 2020 | % change |
|---|---|---|---|---|
| Facebook | Reach | 2,275,361 | 3,386,566 | 49% |
| | Likes | 29,241 | 30,365 | 4% |
| Twitter | Followers | 10,882 | 12,215 | 12% |
| | Engagement | 46,696 | 63,749 | 37% |
| YouTube | Views | 39,555 | 43,198 | 9% |
| | Hours | 4,503 | 4,705 | 5% |
| Slideshare | Views | 155,696 | 157,398 | 1% |
| LinkedIn | Followers | 4,286 | 5,411 | 26% |

The communication work for the Networking From Home project was recognized as a finalist in three Asia Pacific SABRE Award categories, winning a Certificate of Excellence for branding and design.

**WEBSITE VIEWS**
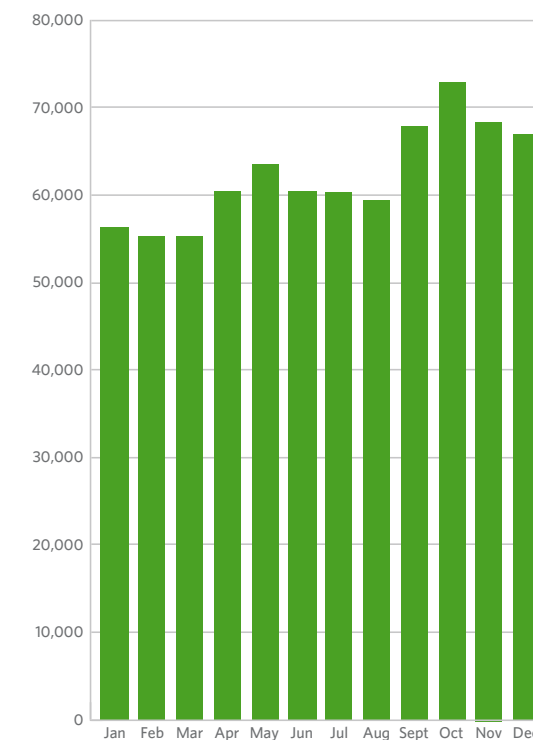
## 3D **Community Participation** – continued

3   Encouraging newcomers

NextGen BoFs were held at APRICOT 2020 and APNIC 50 (following the first NextGen BoF at APNIC 48 in 2019).  While attendance was disappointing at APRICOT 2020, the NextGen BoF at APNIC 50 was a success, with 63 attendees hearing career advice from the heads of the five RIRs.

Sixty percent of APRICOT attendees (336) and 36% of APNIC 50 attendees (169) were newcomers.

APNIC attracted 236 new blog subscribers, 1,333 new Twitter followers, 1,125 new LinkedIn followers, and 1,124 new people liked APNIC's Facebook page.

# 3D **Community Participation** – continued

## SUCCESS MEASURES – 3D

|  | Results | Status |
|---|---|---|
| **Targets** |  |  |
| **Attract 300 in-person participants at SIG sessions** | 242 participants | ✕ |
| **Achieve 800 online SIG participants** | 812 participants | ✓ |
| **Reach 1,250 subscribers to SIG mailing lists** | 1,268 subscribers | ✓ |
| **Reach 2.4 million blog views (all time)** | 2,638,935 views | ✓ |
| **Achieve 4,000 remote conference session views** | 6,974 views | ✓ |
| **Achieve attendance of 1,000 conference delegates** | 1,036 attendees | ✓ |
| **Reach 11,900 Twitter followers** | 12,215 followers | ✓ |
| **Achieve Facebook reach of 2 million** | 3,386,566 reach | ✓ |
| **Attract 350 newcomers to APNIC conferences** | 505 newcomers | ✓ |
| **Attract 75 new blog email subscribers** | 236 new subscribers | ✓ |

## 3D **Community Participation** – continued

### INVESTMENTS

4. Community diversity �

A new Community Demographics page containing gender, English language proficiency, age and disability statistics was published on the apnic.net website and will be updated quarterly.

APNIC also completed a review of translation strategies for apnic.net.

www.apnic.net/community/community-demographics

| 2020 Investment | Member Benefit |
|---|---|
| **Community diversity** | Understanding of the diversity of participants in the APNIC community |
| | Greater diversity of community participation in APNIC activities |

Status: **Completed**

## 3E APNIC Academy

### OPERATIONS

#### 1. Curriculum development ⟳

Two new courses — Network Management and Monitoring, and Network Automation — were developed with subject matter experts, in response to workshop feedback and industry trends. The online  self-paced Routing Basics course was also redeveloped. These courses are due for release in early 2021.

Two new virtual labs for instructor-led training were developed (464XLAT and BGP Operations and Security Best Practices) and one new lab was updated for instructor-led training (IPSec). New labs were also added to the APNIC Academy in OSPF, IS-IS, BGP, IPSec and Segment Routing.

#### 2. Face-to-Face training ⟳

Due to the COVID-19 pandemic, the training delivery team was only able to provide face-to-face training in January and February.

APNIC held 10 face-to-face training sessions for 244 participants in seven locations around the region.

### RESOURCING

| | Budget | Actual |
|---|---|---|
| FTE | 8.45 | 9.10 |
| Expenses | $2,330,523 | $1,875,366 |
| CAPEX | - | $20,991 |

## 3E **APNIC Academy** – continued

### 3. Online training ⟳

From March 2020, training delivery focused on live online training. A program of live online tutorials, in three difference time zones was established (East Asia/South East Asia, South Asia, Oceania), focusing on RPKI, Network Security, DNS/DNSSEC, Advanced Routing (with Multihoming and ROV), IPv6 Deployment, and Segment Routing.

Live online training was also provided at 16 events, including PacNOG 26 and 27, PhNOG Virtual 2020, APAN 50, bdNOG 12, MMIX/MMNOG and LKNOG 4. APNIC delivered 46 live courses for 2,434 participants in total.

The APNIC Academy reached 11,610 registered users (8,216 active), who launched 4,946 virtual labs, completed 2,817 hours of self-paced training, and received 2,519 certificates.

In addition, the Academy hosted 18 live webinars, attracting 2,548 attendees, with guest speakers from ISOC, AusCERT, the Internet System Consortium (ISC) and ICANN.

academy.apnic.net/en

### 4. Community Trainers ⟳

The contracts of 19 Community Trainers (CTs) were renewed and five new CTs were recruited, from Fiji, Indonesia, India and Nepal. Additional CT support was provided through improved onboarding, presentation skills development, access to collaboration tools and additional content.

CTs provided training at events including bdNOG 11, MMNOG, SANOG 35 and an online Internet Routing workshop for Timor-Leste.

training.apnic.net/community-trainers

## 3E  **APNIC Academy** – continued

### 5. Technical assistance

APNIC provided technical assistance to 12 Members in Brunei, Australia, Fiji, Malaysia, Maldives, Nepal, Tonga, and Viet Nam on IXP operations, IPv6 and routing security.

**www.apnic.net/tas**

### 6. RPKI awareness and deployment support

Outreach activities on Route Origin Authorization (ROA) and Route Origin Validation (ROV) awareness and support were conducted in Australia, Maldives, Mongolia, Myanmar, Pakistan, Tonga and Sri Lanka. This outreach work helped Mongolia achieve 100% ROA coverage in October.

Eighteen RPKI-focused training events were delivered during the year (three face-to-face and 15 online tutorials) and 40 RPKI-tagged posts were published on the APNIC Blog.

RPKI adoption significantly increased in 2020. The percentage of Members with ROAs grew from 27.2% to 50.67% in 12 months.

RPKI ADOPTION



Legend: Members with ROAs; Members with RPKI certificates; IPv6 under ROAs; IPv4 under ROAs
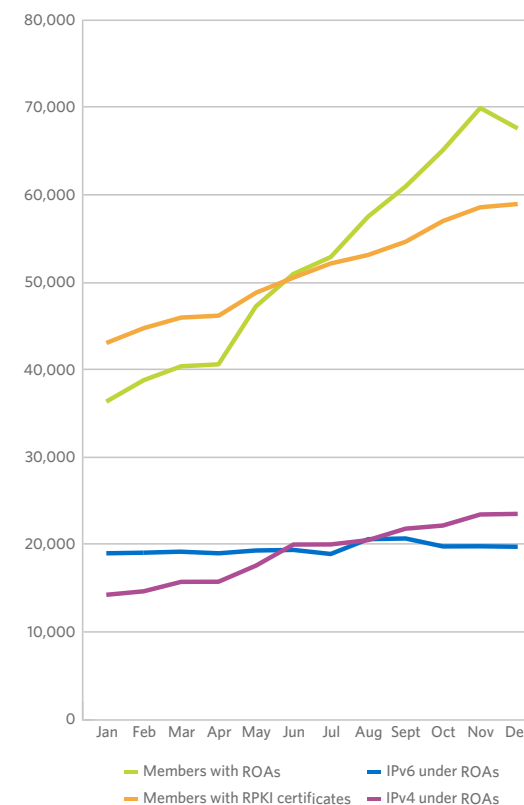
## 3E **APNIC Academy** – continued

### 7. IPv6 awareness and deployment support

Face-to-face training sessions on IPv6 deployment were delivered at bdNOG 11, SANOG 35, and PhNOG 2020 (Feb) with an additional seven tutorials conducted online.

Four new IPv6 deployment success stories on PLDT (Philippines), 3BB (Thailand), Mytel (Myanmar) and Worldlink (Nepal) were published on the apnic.net website, bringing the total to 39. Additionally, 42 IPv6-tagged posts were published on the APNIC Blog.

At the end of 2020, IPv6 capability for the APNIC region was 35.3% as measured by APNIC Labs.

**www.apnic.net/ipv6**

IPV6 CAPABILITY
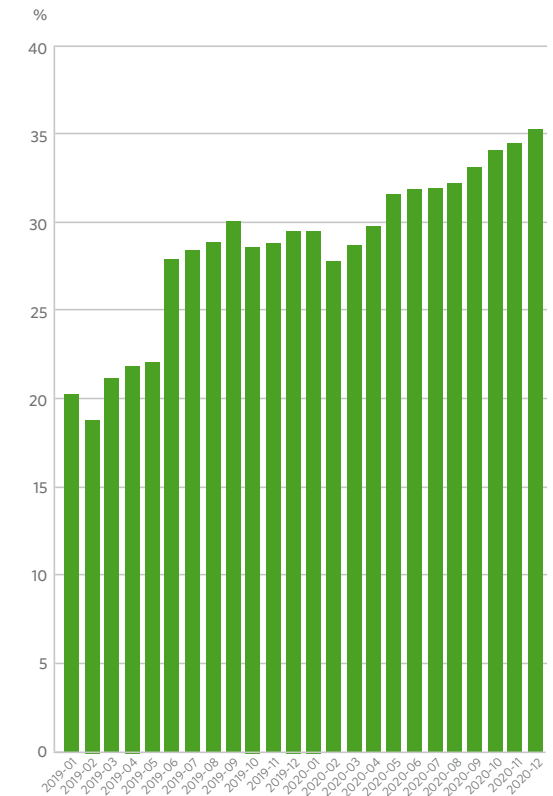
# 3E  **APNIC Academy** – continued

## SUCCESS MEASURES – 3E

| Targets | Results | Status |
|---|---|---|
| **Add Bengali language to APNIC Academy online platform** | Completed | ✓ |
| **Convert three old online training courses to new video-based format** | 2 completed | ✗ |
| **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** | 6 virtual labs<br>3 instructor-led labs | ✓ |
| **Conduct 60+ face-to-face training sessions equitably across the four sub-regions** | 10 F2F training sessions<br>46 live online training sessions<br>18 live webinars | ✓ |
| **Recruit and maintain a pool of 25 qualified Community Trainers from four sub-regions** | 24/25 CTs | ✗ |
| **Start conducting structured technical assistance over the APNIC Academy online platform** | 2021 scheduled launch | ✗ |
| **Publish four IPv6 deployment case studies** | 4 published | ✓ |

## 3E **APNIC Academy** – continued

### INVESTMENTS

8. APNIC Academy development �

APNIC Academy development included the following:

- A new course catalogue and learning pathways guide was added.
- A registration system for APNIC Foundation projects was completed, including Keycloak integration for improved demographic reporting.
- Bengali translation of the Academy website and courses was completed for launch in 2021.
- Technical design work for the technical assistance platform was completed, with the platform build to commence in early 2021.

| 2020 Investment | Member Benefit |
| --- | --- |
| **APNIC Academy development** | Improved access to APNIC's training offerings and technical assistance<br><br>Improved experience and satisfaction with training services across all skill levels<br><br>Greater access to training in more economies with language barriers |
| Status: **Ongoing** | |

## 3F  Internet Infrastructure Deployment

### OPERATIONS

1.  Internet infrastructure deployment ⟳

    Network equipment was donated to Fiji IXP, Lahore IX, BKNIX, and Bhutan IX to support IXP deployment and upgrades. Technical advice on topics including IXP design, route server filtering policy, and ROV deployment was provided to IXP operators in Malaysia, Hong Kong, Viet Nam and the Maldives.

    APNIC assisted with the deployment of K-root instances in China (with CAICT) and Ho Chi Minh City, Viet Nam (with VNIX) and upgraded the J and K-root instances in Brisbane.

    A new M-root instance was deployed in Brisbane under an agreement between APNIC, the WIDE Project and JPRS (see 3F.3).

2.  Honeynet deployment ⟳

    The Community Honeynet project was expanded with the addition of five new partners in Bangladesh, Hong Kong, Malaysia, Indonesia and Japan.

    The backend system serving the Community Honeynet was upgraded, with Honeynet information feeds provided to Dashboard of Autonomous System Health (DASH) users (see 4A.2).

### RESOURCING

|  | Budget | Actual |
| --- | --- | --- |
| FTE | 1.10 | 0.94 |
| Expenses | $1,324,458 | $1,009,209 |
| CAPEX | $395,000 | $17,288 |

## 3F  Internet Infrastructure Deployment – continued

SUCCESS MEASURES – 3F

| Targets | Results | Status |
|---|---|---|
| | Results | Status |
| **Support deployment of at least two new or upgraded IXPs** | 3 IXPs | ✓ |
| **Support deployment of at least six new rootserver instances at IXPs or other networks** | 3/6 completed | ✗ |
| **Support at least six IXPs to deploy RPKI on their route servers** | 2/6 IXPs | ✗ |
| **Deploy at least four RIPE Atlas anchors at various networks** | 1/4 deployment | ✗ |
| **Establish five new Community Honeynet partners** | 5 new partners | ✓ |

## 3F **Internet Infrastructure Deployment** – continued

### INVESTMENTS

3. M-root anycast instance deployment →|

A Memorandum of Understanding (MoU) was signed between APNIC, the WIDE project and JPRS to expand M-root deployment throughout the region.

The first deployment was made in one of APNIC's Brisbane data centres (the first M-root deployment in Australia), connecting to two IXPs. Two M-root instances were in progress in the Philippines and Guam.

4. Security threat sharing platform →|

The security threat sharing platform was deployed, integrating data from CERTs/CSIRTs and security researchers on incidents being observed and analysed by the community.

| 2020 Investment | Member Benefit |
|---|---|
| **M-root anycast instance deployment** | Faster and more reliable DNS service<br><br>Faster and easier deployment of root DNS anycast instances at desirable or underserved locations |
| Status: **Ongoing** | |

| | |
|---|---|
| **Security threat sharing platform** | Access to actional threat information to help protect infrastructure and customers<br><br>Increased situational awareness on cybersecurity threats |
| Status: **Completed** | |

# 4. INFORMATION

## OBJECTIVE

Support Internet development with needed network information services, and research outcomes which are of demonstrated value to the community.

## WORKSTREAMS

4A. Information Products
4B. Research and Analysis

## INFORMATION - SUMMARY

|  | Budget | Actual |
|---|---|---|
| FTE | 5.75 | 7.42 |
| Expenses | $1,643,653 | $1,575,193 |
| CAPEX | $80,000 | $48,643 |

# 4A Information Products

## OPERATIONS

### 1. APNIC Blog ↻

The APNIC Blog averaged 64,778 unique views per month in 2020, a 35% increase on 2019's monthly average of 48,026. There were 185 Guest Posts, representing 56% of total opinion posts (an increase on 2019's 49%), with 395 posts in total.

An influential Guest Post on Chromium's impact on DNS queries led to redevelopment of Chromium code and a 41% reduction in global root zone traffic by the end of 2020.

The Blog passed the milestone of 2.5 million views (all-time) in October and in the past five years annual Blog views have increased 291%.

### 2. Information product management ↻

Improvements to the Internet Directory, based on user data and feedback, included new RDAP and whowas tabs, a comparison mode for AS interconnection diagrams, interface improvements (such as summary figures above charts) and improvements to map views. Further development also began on economy and sub-regional snapshot functions for a 2021 release.

DASH v1.0, which provides network security health indicators, was released during APNIC 50 in September. Users increased to 1,914 during the year, with APNIC's security specialists receiving 23 requests for additional information from DASH users. New recurring reporting functionality is under development.

A new version of NetOX was also released during APNIC 50, including welcome page, navigation improvements and pilot Chinese language options (simplified and traditional). NetOX users increased to 2,332 during the year.

## BLOG VIEWS
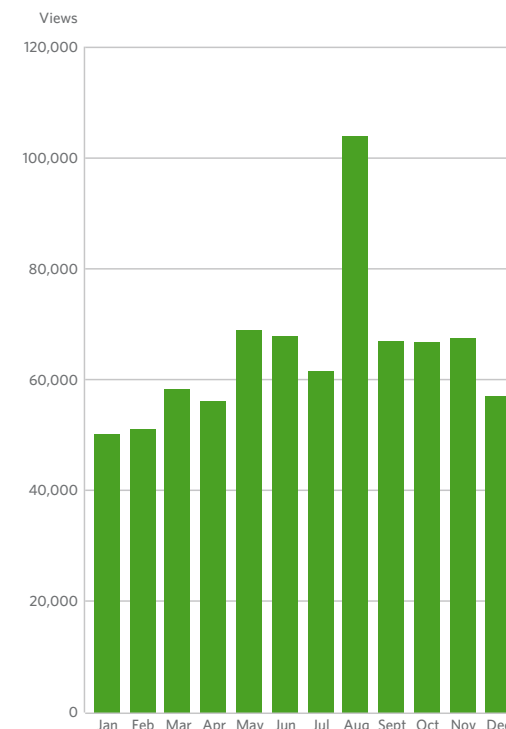


## RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 4.90 | 6.33 |
| Expenses | $794,498 | $878,750 |
| CAPEX | – | – |

## 4A **Information Products** – continued

SUCCESS MEASURES – 4A

| Targets | Results | Status |
|---|---|---|
| Reach 2.4 million blog views (all time) | 2,638,935 views | ✓ |
| Average 50,000 blog views per month | 64,478/month | ✓ |
| Maintain blog Guest Post ratio between 45 to 50%+ | 56% | ✓ |
| Achieve a net promoter score higher than 70 for Internet Directory, NetOx and DASH | 37, 71 and 68 respectively | ✗ |
| Achieve a usability score higher than 4.5 for Internet Directory, NetOx and DASH | 4.1, 4.7 and 4.6  respectively | ✗ |
| Achieve at least 30% returning users to the Internet Directory, NetOX and DASH | 138%, 206% and 22% respectively | ✗ |
| Participation in user research activities of at least eight users per product during the year | 66 participants | ✓ |

## 4B **Research and Analysis**

### OPERATIONS

1. Conducting research and measurements ↻

   APNIC Labs research activities included:

   - Development and release of an RPKI ROV monitor, examining progressive deployment of ROV filters in the network.
   - New measurements on the use of IPv6 as a transport protocol for the DNS and IPv6 Extension Header handling.
   - Analysis of advertised, unadvertised and reserved address pools over time.
   - Reporting on the annual state of BGP, and further development of routing bogon and CIDR reports, as input to the ISOC MANRS activity. Work continues on automated BGP anomaly detection.
   - Analysis of the handling of large DNS responses, adoption of DOH, and DNS query patterns.

2. Sharing research outcomes ↻

   Research findings were shared at technical forums globally, with 39 online presentations delivered, to help network engineers and policy makers make better decisions about Internet design and development. There were 26 articles published on the APNIC Blog, including research findings, analysis of trust architecture, and commentary on new Internet technologies.

   **labs.apnic.net**

### RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 0.85 | 1.09 |
| Expenses | $849,155 | $696,443 |
| CAPEX | $80,000 | $48,643 |

## 4B **Research and Analysis** – continued

3. Cooperative research

   APNIC entered into a cooperative research program with ISOC in support of MANRS, providing a feed of routing data.

   As part of a cooperative research agreement with ICANN, a measurement framework for the Identifiers Technology Health Indicators (ITHI) program was developed, as well as collaborative measurements on aspects of the DNS and DNSSEC.

## 4B **Research and Analysis** – continued

SUCCESS MEASURES – 4B

| | Results | Status |
|---|---|---|
| **Targets** | | |
| Twelve research articles and reports published | 26 published | ✓ |
| Ten research presentations delivered | 39 presentations | ✓ |
| Two presentations to Policy SIG meetings | 1 presentation | ✗ |

# 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:

5A. Internal Technical Infrastructure
5B. Finance and Business Services
5C. Employee Experience
5D. Governance

## CAPABILITY - SUMMARY

|  | Budget | Actual |
|---|---|---|
| FTE | 25.30 | 27.00 |
| Expenses | $7,692,342 | $7,336,436 |
| CAPEX | $262,600 | $426,178 |

## 5A **Internal Technical Infrastructure**

### OPERATIONS

1.  Information architecture and management

    The workflow for documenting and implementing APIs was reviewed and improved, with the use of OpenAPI to describe internal APIs now standard practice.

    Technical selection guidelines were improved for product development teams designing new features or considering improvements.

    Requirements for inter-system tracing and management have been incorporated into 2021 operations planning.

2.  Network and infrastructure operations

    The costs of existing transit and peering connectivity in Brisbane were reviewed and a new gigabit IX peering connection with EdgeIX Australia and APNIC's data centre, NextDC B1, was established. Redundant peering with Google began via PCCW Console Connect from the data centre, in addition to an existing peering arrangement via Megaport.

    The APNIC network was deemed MANRS-compliant after an ISOC evaluation. APNIC is an official MANRS participant.

    The Secretariat office Wi-Fi was upgraded to support the Wi-Fi 6 standard, providing better coverage.

### RESOURCING

|          | Budget      | Actual      |
|----------|-------------|-------------|
| FTE      | 13.10       | 13.35       |
| Expenses | $3,140,201  | $3,152,562  |
| CAPEX    | $207,600    | $411,770    |

# 5A **Internal Technical Infrastructure** – continued

3. System and platform operations

To improve online service performance, a Google Cloud Platform facility was established with a Kubernetes (GKE) cluster. RDAP was deployed to this facility as a highly available service, with rolling update capability to allow zero-downtime upgrades. Cloudflare was configured to load balance production traffic to the GKE cluster supporting RDAP, with the goal of directing traffic to the closest multi-region cluster in future.

The infrastructure-as-code (terraform) is being written to allow deployment of GKE clusters to multiple regions within the same GCP Virtual Private Cloud (VPC) network.

Production usage data from the Sydney cluster was analysed to determine the best cost options for multiple RDAP deployments. Individual NIR RDAP services were also deployed on the GCP.

Cloudflare was reconfigured to use heavy caching of APNIC public websites to improve response times and availability. APNIC deprecated TLSv1.0 and v1.1 on all online services.

The Hardware Security Module (HSM) was also reconfigured to create a separate key for the RPKI AS0 ROA (see 2B.3).

| Core system uptime | | Average data centre bandwidth usage (Mbps) | | Average query rates (per second) | |
|---|---|---|---|---|---|
| FTP | 99.98% | AU edge inbound | 53 | Whois | 396 |
| MyAPNIC | 99.97% | AU edge outbound | 210 | RDAP | 58.52 |
| RDNS | 100% | JP edge inbound | 70 | RDNS | 10,600 |
| RDNS DNSSEC Validity | 100% | | | RPKI | 31 |
| Whois | 100% | | | FTP | 4.79 |
| RPKI | 99.99% | | | MyAPNIC | 0.53 |
| RDAP | 99.97% | | | | |

# 5A **Internal Technical Infrastructure** – continued

### 4. CSIRT operations

A Vulnerability Reporting Program was launched in July, along with a new GPG key for the CSIRT email (csirt@apnic.net). APNIC received 31 unique and verified vulnerability reports from external security researchers between July and December.

External penetration testing was completed and detected no high severity vulnerabilities. Mitigation tasks were assigned to responsible technical teams for resolution and additional testing is ongoing, focusing on potential network vulnerabilities.

As part of ISMS for ISO 27001 preparations, the internal Acceptable Use Policy (AUP) and Bring Your Own Device (BYOD) policy were updated. Staff also received regular security awareness training, including seven security advice documents. An audit of administrator access accounts, and of current technical controls against CIS controls, was conducted in June.

An ISO 27001 gap analysis was conducted and analysis and remediation is work underway.

### 5. Enterprise application management

S/MIME Digital Signing and mail encryption was implemented using an external CA for better efficiency.  All staff and CTs were also migrated to Okta authentication for web application access.

Development of a Legacy Application Roadmap began to move internal applications away from certificate-based authentication to modern OpenID Connect standards in 2021.

Litmos was also implemented for tracking of staff training and policy compliance.

## 5A **Internal Technical Infrastructure** – continued

SUCCESS MEASURES – 5A

| Targets | Results | Status |
|---|---|---|
| | **Results** | **Status** |
| **Develop dependency management framework using APIs to map system dependencies** | Completed | ✓ |
| **Availability of 99.95% for critical APNIC services and 99.9% for non-critical APNIC services** | 99.98% critical services<br>99.99% non-critical services | ✓ |
| **Annual stocktake and audit of all IT hardware completed** | Completed | ✓ |
| **Begin investigations and notify senior management within two hours of on-call notification and achieve containment within four hours for any critical incident** | No critical incident reported | ✓ |
| **All EC, Community Trainers, and APNIC staff credentials managed under OKTA** | Completed | ✓ |
| **Roadmap completed for removal of legacy data systems** | 2021 scheduled completion | ✗ |

# 5A **Internal Technical Infrastructure** – continued

## INVESTMENTS

6. Network presence at Asia Pacific Internet hubs →|

A new direct remote connection from APNIC's Brisbane data centre to Equinix IX in Singapore was established, for direct peering and reduced latency with networks in South and South East Asia. A direct remote connection from Brisbane to HKIX in Hong Kong is in progress.

Reachability is currently being monitored using RIPE Atlas anchors from several locations.

| 2020 Investment | Member Benefit |
|---|---|
| **Network presence at Asia Pacific Internet hubs** | Fast and reliable access to APNIC's online services |
| Status: **Completed** | |

## 5B Finance and Business Services

### OPERATIONS

1. **Knowledge management**

   The staff intranet was transferred from Foswiki to Confluence.

2. **Financial services**

   A new PBCS financial reporting tool was implemented and financial reports and forecasting were transitioned to the platform.

   The annual audit of APNIC's 2019 financial accounts was completed by Deloitte and presented to the EC at APNIC 49.

3. **Business services**

   An external full recertification audit of APNIC's ISO9001:2016 quality management system was successfully completed in August.

   In response to the COVID-19 pandemic, a COVID-19 BCP response team was established in January to oversee APNIC staff travel, office operations and activities. A staff 'work from home' plan was implemented in March, with the COVID-19 situation reviewed weekly and policies adjusted as needed.

### RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 8.20 | 7.02 |
| Expenses | $1,999,138 | $1,821,675 |
| CAPEX | $55,000 | $14,408 |

## 5B **Finance and Business Services** – continued

SUCCESS MEASURES – 5B

| Targets | Results | Status |
|---|---|---|
| **Knowledge management tools identified, and implementation project plan developed** | Completed | ✓ |
| **Successful audit of APNIC's annual financial accounts** | Completed | ✓ |
| **Successful completion of annual ISO quality management compliance audit** | Completed | ✓ |
| **Successful implementation of the new PBCS financial reporting tool and framework** | Completed | ✓ |
| **Quarterly BCP scenario testing undertaken** | Completed | ✓ |

## 5B **Finance and Business Services** – continued

### INVESTMENTS

#### 4. Business intelligence ➞|

A production data warehouse system, incorporating customer and registration data, was deployed in August to provide better analysis and consistent reporting. In December, automated extract, transform and load (ETL) processes began archiving data into the warehouse on a daily basis.

The initial data mart development process resulted in significant improvements to the data warehouse deployment. A data mart capable of producing reporting information will be deployed in the first quarter of 2021.

| 2020 Investment | Member Benefit |
|---|---|
| **Business intelligence** | Improved Secretariat decision-making and easier access to structured information for service requests |
| | Improved reporting to APNIC EC and Members |

Status: **Ongoing**

# 5C **Employee Experience**

## OPERATIONS

### 1. Organizational development ⟳

There was a focus on increasing the use of Agile tools and methodologies by both technical and non-technical teams. All non-product teams completed ICAgile Certification in Agile Fundamentals.

All members of the APNIC executive, management team and specialists participated in a Leadership Development Program (ASPIRE) between July and November.

Virtual presentation skills training was provided to staff and Community Trainers.

### 2. Physical work environment management ⟳

A hybrid of office access and work from home arrangements was established with no service or performance interruptions as a result of COVID-19.

The security surveillance system was upgraded in August.

## RESOURCING

|  | Budget | Actual |
| --- | --- | --- |
| FTE | 2.45 | 5.10 |
| Expenses | $1,692,464 | $1,618,344 |
| CAPEX | – | – |

# 5C **Employee Experience** – continued

### 3. Talent attraction and retention

APNIC filled 13 staff roles in 2020 (including four casual conversions and three new roles):

- Senior DevOps Engineer
- Systems Administrator (Internal Services)
- Senior Full Stack Developer
- Senior Digital Communications Officer
- Network Analyst/Technical Trainer
- Senior Advisor – Strategic Engagement
- Senior Network Analyst/Technical Trainer

- Salesforce Developer/Administrator
- Finance Manager/Management Accountant Business Services Co-ordinator
- People Operations Manager
- Full Stack Developer
- Web Designer/Developer

In addition, several casual and contract roles were filled:

- Internet Resource Analysts
- People Operations Coordinator

- UX/UI Designer
- Full Stack Developers

Five new Community Trainers were also engaged.

### 4. Policies and benefits management

Policies to accommodate legislative changes and organizational requirements were established and reviewed. Policies, resource plans, office rosters and regular bulletins all related to managing the Secretariat's response to the COVID-19 pandemic were developed.

Salary and benefits reviews were completed in December, following annual performance reviews and an audit of role market pricing.

# 5C **Employee Experience** – continued

## SUCCESS MEASURES – 5C

| Targets | Results | Status |
|---|---|---|
| **Strategic goals clearly cascade to individual performance measures in 2020 annual reviews** | Postponed to Jan 2021 | ✕ |
| **Risk management data demonstrating any WHS incidents are not caused by APNIC's local or remote environments** | Achieved | ✓ |
| **Building surveillance system upgraded** | Completed | ✓ |
| **Staff turnover rate is within acceptable benchmarks of between 5 and 15%** | 3.5 % turnover | ✓ |
| **Professional development budget is fully spent, and addresses needs identified in performance reviews wherever possible** | Completed | ✓ |
| **Identify workplace policies that are not aligned with best practice in Australia and provide recommendations for 2021 budget** | Completed | ✓ |

# 5C **Employee Experience** – continued

## INVESTMENTS

### 5. Product management →|

Product teams were established for the Academy and enterprise applications. Staff also received product management training, with ongoing coaching provided by external consultants and an internal product management coach.

| 2020 Investment | Member Benefit |
|---|---|
| **Product management** | Development and management of products and services that are validated with the needs of Members and the community |

Status: **Completed**

# 5D **Governance**

## OPERATIONS

### 1. Executive Council (EC) support ⟳

Sumon Ahmed Sabir and Vincent "Achie" Atienza were elected to the APNIC EC for the first time at APNIC 49, and participated in the EC induction program in early April. Kam Sze Yeung was re-elected to the EC for a third term.

The first EC meeting of the year was held in Melbourne on 18 and 21 February, followed by online meetings on 17 March, 4 May, 22-24 June, 4 and 11 September, and 7-8 December 2020.

### 2. Corporate governance and legal ⟳

A revised Strategic Risk Register was presented to the EC in June, incorporating feedback from the EC meeting held at APNIC 49, and the strategic planning workshops in 2019.

An updated APNIC Privacy Statement was published in March. Staff were provided with privacy training to ensure awareness of privacy law obligations. A separate Privacy Statement for the APNIC Foundation was also published.

Crisis management and communication training was provided to all members of the leadership team in March.

## RESOURCING

|  | Budget | Actual |
|---|---|---|
| FTE | 1.55 | 1.53 |
| Expenses | $860,539 | $743,856 |
| CAPEX | – | – |

# 5D **Governance** – continued

## SUCCESS MEASURES – 5D

| | Results | Status |
|---|---|---|
| **Targets** | | |
| **Revised Strategic Risk Register fully implemented** | Completed | ✓ |

## 2020 FINANCIAL REPORT BY ACTIVITY

| Activity | FTE Actual 2020 | FTE Budget 2020 | FTE Variance | CAPEX Actual (AUD) 2020 | CAPEX Budget (AUD) 2020 | CAPEX Variance (AUD) | OPEX Actual (AUD) 2020 | OPEX Budget (AUD) 2020 | OPEX Variance (AUD) |
|---|---|---|---|---|---|---|---|---|---|
| Member Services | 9.35 | 9.80 | -0.45 | 0 | 0 | 0 | 2,301,059 | 2,461,629 | -160,570 |
| Membership Products | 7.45 | 7.15 | 0.30 | 0 | 0 | 0 | 1,256,789 | 1,127,922 | 128,867 |
| Membership Reporting | 1.11 | 0.60 | 0.51 | 0 | 0 | 0 | 447,994 | 633,245 | -185,251 |
| **Membership - Total** | **17.91** | **17.55** | **0.36** | **0** | **0** | **0** | **4,005,842** | **4,222,796** | **-216,954** |
| Registration Services | 4.78 | 3.70 | 1.08 | 0 | 0 | 0 | 664,335 | 645,389 | 18,946 |
| Registry Products | 5.11 | 5.30 | -0.19 | 0 | 0 | 0 | 909,329 | 825,807 | 83,522 |
| Policy Development | 0.71 | 0.85 | -0.14 | 0 | 0 | 0 | 381,191 | 640,320 | -259,129 |
| **Registry - Total** | **10.60** | **9.85** | **0.75** | **0** | **0** | **0** | **1,954,855** | **2,111,516** | **-156,661** |
| APNIC Conferences | 4.36 | 4.60 | -0.24 | 4,174 | 1,000 | 3,174 | 1,082,485 | 1,405,301 | -322,816 |
| Foundation Support | 1.41 | 1.15 | 0.26 | 0 | 0 | 0 | 972,229 | 865,463 | 106,766 |
| Community Engagement | 5.69 | 7.15 | -1.46 | 0 | 0 | 0 | 1,776,609 | 2,493,689 | -717,080 |
| Community Participation | 0.56 | 1.10 | -0.54 | 0 | 0 | 0 | 194,046 | 203,283 | -9,237 |
| APNIC Academy | 9.10 | 8.45 | 0.65 | 20,991 | 0 | 20,991 | 1,875,366 | 2,330,523 | -455,157 |
| Internet Infrastructure Support | 0.94 | 1.10 | -0.16 | 17,288 | 395,000 | -377,712 | 1,009,209 | 1,324,458 | -315,249 |
| **Development - Total** | **22.06** | **23.55** | **-1.49** | **42,453** | **396,000** | **-353,547** | **6,909,943** | **8,622,717** | **-1,712,774** |
| Information Products | 6.33 | 4.90 | 1.43 | 0 | 0 | 0 | 878,750 | 794,498 | 84,252 |
| Research and Analysis | 1.09 | 0.85 | 0.24 | 48,643 | 80,000 | -31,357 | 696,443 | 849,155 | -152,712 |
| **Information - Total** | **7.42** | **5.75** | **1.67** | **48,643** | **80,000** | **-31,357** | **1,575,193** | **1,643,653** | **-68,460** |
| Internal Technical Infrastructure | 13.35 | 13.10 | 0.25 | 411,770 | 207,600 | 204,170 | 3,152,562 | 3,140,201 | 12,361 |
| Finance and Business Services | 7.02 | 8.20 | -1.18 | 14,408 | 55,000 | -40,592 | 1,821,675 | 1,999,138 | -177,463 |
| Employee Experience | 5.10 | 2.45 | 2.65 | 0 | 0 | 0 | 1,618,344 | 1,692,464 | -74,120 |
| Governance | 1.53 | 1.55 | -0.02 | 0 | 0 | 0 | 743,856 | 860,539 | -116,683 |
| **Capability - Total** | **27.00** | **25.30** | **1.70** | **426,178** | **262,600** | **163,578** | **7,336,436** | **7,692,342** | **-355,906** |
| **Total** | **85.00** | **82.00** | **2.99** | **517,274** | **738,600** | **-221,326** | **21,782,270** | **24,293,024** | **-2,510,754** |

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 2020, 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

| | 2020 (AUD) | 2019 (AUD) | % change from 2019 |
|---|---|---|---|
| **Current assets** | | | |
| Cash and cash equivalents | 7,081,222 | 4,028,308 | 76% |
| Trade and other receivables | 5,356,419 | 5,643,606 | -5% |
| Other current assets | 780,653 | 836,557 | -7% |
| **Total current assets** | **13,218,294** | **10,508,471** | **26%** |
| **Non-current assets** | | | |
| Financial assets | 31,036,408 | 27,702,841 | 12% |
| Property, plant and equipment | 6,948,694 | 7,149,423 | -3% |
| **Total non-current assets** | **37,985,102** | **34,852,264** | **9%** |
| **Total assets** | **51,203,396** | **45,360,735** | **13%** |

## Liabilities

| | 2020 (AUD) | 2019 (AUD) | % change from 2019 |
|---|---|---|---|
| **Current liabilities** | | | |
| Trade and other payables | 1,369,013 | 1,167,174 | 17% |
| Provisions | 2,233,396 | 1,801,421 | 24% |
| Unearned revenue | 11,885,376 | 10,570,081 | 12% |
| **Total current liabilities** | **15,487,785** | **13,538,676** | **14%** |
| **Non-current liabilities** | | | |
| Deferred tax liabilities | 1,131,984 | 720,729 | 57% |
| Provisions | 406,744 | 376,628 | 8% |
| **Total non-current liabilities** | **1,538,728** | **1,097,357** | **40%** |
| **Total liabilities** | **17,026,513** | **14,636,033** | **16%** |
| **Net assets** | **34,176,883** | **30,724,702** | **11%** |

## Equity

| | 2020 (AUD) | 2019 (AUD) | % change from 2019 |
|---|---|---|---|
| Contributed equity | 1 | 1 | 0% |
| Retained earnings | 34,176,882 | 30,724,701 | 11% |
| **Total equity** | **34,176,883** | **30,724,702** | **11%** |

## STATEMENT OF INCOME

| | 2020 (AUD) | 2019 (AUD) | % change from 2019 |
|---|---|---|---|
| **Revenue** | | | |
| Membership fees | 22,766,728 | 21,061,318 | 8% |
| Non-member fees | 260,483 | 255,751 | 2% |
| Reactivation fees | 18,400 | 16,900 | 9% |
| Sign-Up fees | 347,250 | 345,500 | 1% |
| Transfer fees | 216,016 | 173,831 | 24% |
| Sundry income | 534,307 | 435,603 | 23% |
| Foreign exchange gain/ (loss) | -72,448 | -4,739 | 1,429% |
| **Operating revenue** | **24,070,736** | **22,284,164** | **8%** |
| Investment income | 924,590 | 981,871 | -6% |
| **Total revenue** | **24,995,326** | **23,266,035** | **7%** |
| | | | |
| **Expenses** | | | |
| Communication expenses | 697,060 | 570,832 | 22% |
| Computer expenses | 1,216,809 | 1,067,957 | 14% |
| Contribution to APNIC Foundation | 760,890 | 762,179 | -0% |
| Contribution to ICANN | 223,432 | 263,386 | -15% |
| Depreciation expense | 707,658 | 862,055 | -18% |
| Meeting and training expenses | 135,335 | 425,704 | -68% |
| Office operating expenses | 290,543 | 342,806 | -15% |
| Professional fees | 1,932,613 | 1,820,443 | 6% |
| Salaries and personnel expenses | 14,070,813 | 12,789,661 | 10% |
| Sponsorship and publicity expenses | 437,724 | 627,766 | -30% |
| Travel expenses | 331,259 | 2,390,238 | -86% |
| Other operating expenses | 978,134 | 1,051,622 | -7% |
| **Total expenses** | **21,782,270** | **22,974,649** | **-5%** |
| | | | |
| **Operating surplus** | | | |
| **Surplus before tax and fair value gain on financial assets** | **3,213,056** | **291,386** | **1,003%** |
| Fair value gain on financial assets at fair value through profit or loss | 650,379 | 2,169,284 | -70% |
| **Surplus before income tax** | **3,863,435** | **2,460,670** | **57%** |
| Income tax expense | -411,254 | -556,953 | -26% |
| **Surplus for the year** | **3,452,181** | **1,903,717** | **81%** |

# CASH FLOW STATEMENT (AUD)

| | 2020 (AUD) | 2019 (AUD) | % change from 2019 |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Receipts from customers | 24,574,280 | 21,621,399 | 14% |
| Payments to suppliers and employees | (19,250,306) | (21,658,256) | -11% |
| Grants received | | | 0% |
| Interest received | 70,754 | 148,918 | -52% |
| **Net cash inflow from operating activities** | **5,394,728** | **112,061** | **4,714%** |
| | | | |
| **Cash flows from investing activities** | | | |
| Investment distribution income | 853,836 | 832,953 | 3% |
| Payments for property, plant and equipment | (517,273) | (548,369) | -6% |
| Proceeds from sale of property,  plant and equipment | 4,811 | 5,563 | -14% |
| Purchase of available-for-sale financial assets | (2,683,188) | (672,331) | 299% |
| **Net cash (outflow) from investing activities** | **(2,341,814)** | **(382,184)** | **513%** |
| | | | |
| **Net increase (decrease) in cash and cash equivalents** | **3,052,914** | **(270,123)** | **-1,230%** |
| | | | |
| Cash and cash equivalents at the beginning of the year | 4,028,308 | 4,298,431 | -6% |
| Effects of exchange rate changes on cash and cash equivalents | | | 0% |
| **Cash and cash equivalents at the end of year** | **7,081,222** | **4,028,308** | **76%** |

# Community Engagement Summary

**1** Technical Assistance
**1** Foundation Project
**1** Membership Development
**3** Member Outreach
**6** APNIC
**8** Development
**10** Foundation Engagement
**12** CERT Engagement
**16** Technical
**22** NOG
**23** Internet Governance
**25** Coordination
**35** Security
**74** Training
**37** Government

**TYPES**

**51** South-East Asia
**34** South Asia
**49** Oceania
**37** Asia-Pacific
**32** East Asia
**71** Global

**LOCATIONS**
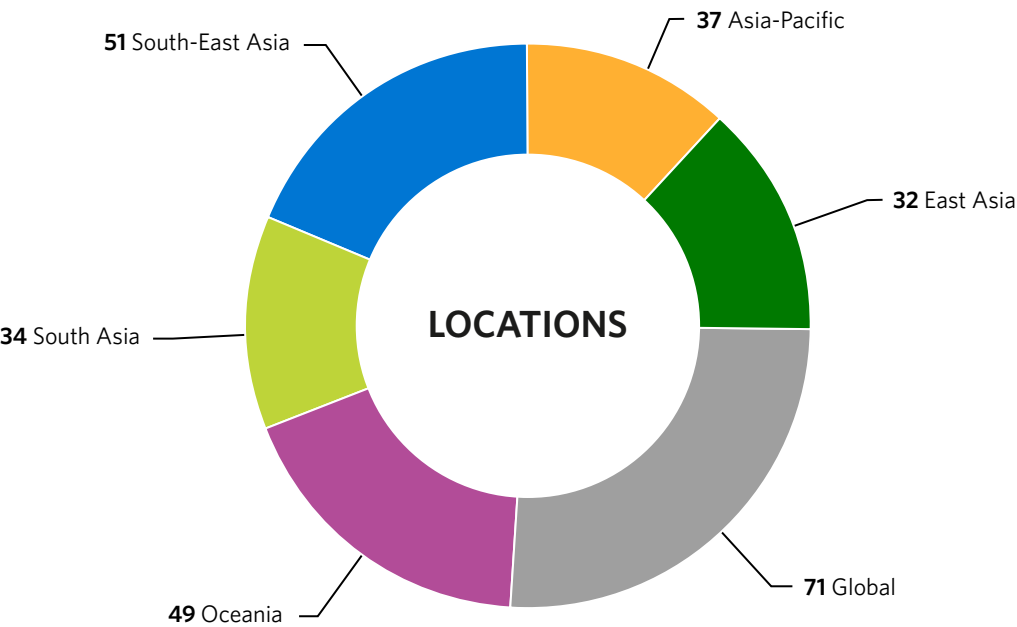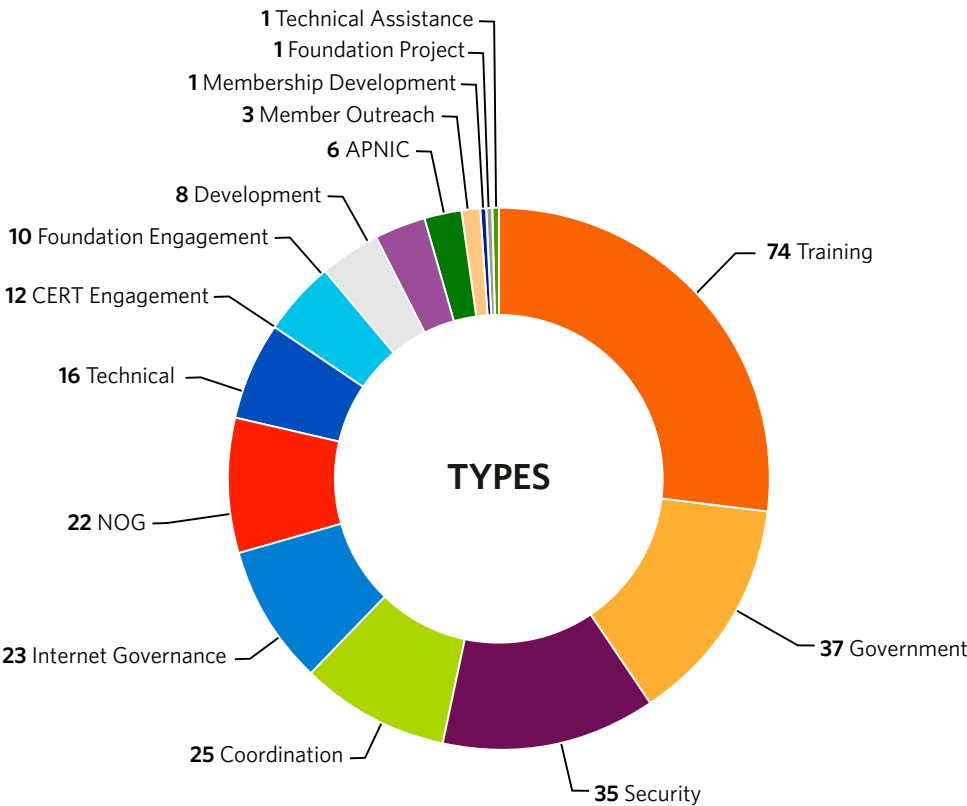
Engagements are units of measurement for meaningful interactions by APNIC staff with the community through events. There are currently 15 types of engagements in APNIC, as shown on pages 91 and 92.

Due to COVID-19 and related travel restrictions, APNIC's participation at face-to-face events shifted to wholly online representation.

# Community Engagement Summary

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

## SOUTH ASIA

| Code |
| --- |
| BD |
| BT |
| IN |
| LK |
| MV |
| NP |
| PK |

## SOUTH EAST ASIA

| Code |
| --- |
| BN |
| ID |
| KH |
| MM |
| MY |
| PH |
| SG |
| TH |
| TL |
| VN |

## EAST ASIA

| Code |
| --- |
| CN |
| HK |
| JP |
| KR |
| MN |
| TW |

## OCEANIA

| Code |
| --- |
| AU |
| NZ |
| FJ |
| PG |
| SB |
| VU |
| PW |
| TO |
| WS |

# Supporters

APNIC acknowledges and thanks the following organizations for their generous support for APNIC conferences and training events.

## Conference Sponsors:

(In alphabetical order)

| | | | |
|---|---|---|---|
| @Tokyo | CNNIC, China Network Information Centre | JPIX, Japan Internet Exchange Co Ltd | NZNOG |
| Addrex | DE CIX | JPNIC, Japan Network Information Centre | PacNOG |
| Akamai | Equinix | Kentik | Paraqum Technologies |
| Aliter Networks | Extreme | KISA, Korea Internet & Security Agency | PCCW Global |
| AMSIX, Amsterdam Internet Exchange | Facebook | LARUS | PHCOLO |
| APJII, Asosiasi Penyelenggara Jasa Internet Indonesia | Flexoptix | Linx | SGIX, Singapore Internet Exchange |
| APNIC | Free BSD Foundation | Megaport | TEIN CC |
| AsiaConnect | GandiNet | Microsoft | Telia Carrier |
| AusNOG | Google | MyIX | Telstra |
| AWS | ICANN | Netflix | TWNIC, Taiwan Network Information Centre |
| Brenac | Internet Association of Australia | Netscout | V4Escrow |
| Cloudflare | Internet Society | Nexusguard | Verisign |
| | IPv4.Global | NSRC, Network Startup Resource Centre | Vocus Communications |

## Training Sponsors:

| | | |
|---|---|---|
| Institute of Electronics Engineers of the Philippines | Focus Infocom (MV) | CNNIC |
| Pakistan Telecommunication Authority (PTA) | Ministry of Transport and Communications (MTC) (TL) | Myanmar Internet Exchange (MMIX) |
| Tencent (CN) | Authority for Info-Communications Technology Industry (AITI) (BN) | |
| Maxis Broadband Sdn Bhd (MY) | | |

# Appendix: Events attended in 2020

Following is the list of events in which APNIC staff participated. A star (*) indicates events where APNIC provided sponsorship.

| JANUARY | Economy |
|---|---|
| Foundation meetings - Tokyo Jan 2020 | JP |
| Securing Internet Routing Workshop | AU |
| 3rd ACEMS Workshop on Challenges of Data and Control of Networks (ACDCN) | AU |
| MMIX Peering Forum & MMNOG 2020* | MM |
| JANOG 45* | JP |
| SANOG 35* | PK |
| NZNOG 2020 | NZ |
| bdNOG 11* | BD |
| PNGTRAINING WS 15 - DNS & DNSSEC | PG |
| CERT Support for Pakistan Telecom Authority | PK |
| Intro to CSIRTs with LEARN | LK |

| FEBRUARY | |
|---|---|
| NANOG 78 | US |
| PhNOG 2020* | PH |
| 2020 Global Cybersecurity Capacity Building Conference | AU |
| 2020 Australasian Aid Conference | AU |
| APRICOT 2020 | AU |
| Cyber Safety Pasifika - Content Review Workshop | AU |
| NRO ECG | NL |
| Samoa IT Association (SITA) IT Security Seminar* | WS |
| APTLD 77 Members Meeting & 2020 AGM | AU |
| Honeypot Project for HKPF | HK |

| MARCH | |
|---|---|
| ICANN 67 | MX |
| IETF 107 | CA |

| APRIL | |
|---|---|
| GFCE-V Meeting 2020 | NL |
| Securing Internet Routing tutorial | AU |
| Securing Internet Routing tutorial | AU |
| Cambodia CERT Security Talk | KH |
| ISOC-APNIC Tech Talk on RPKI 101 | AU |

| MAY | |
|---|---|
| APT WTSA20-2 | TH |
| Securing Internet Routing tutorial | AU |
| EU ATT&CK Community Workshop | BE |
| Infosec Jupyterthon 2020 | US |
| NRO EC Virtual Meeting | MY |
| Panel Discussion on CERT/CSIRT | ID |
| Suricata IDS / NSM Developer Webinar | US |
| APT Web Dialogue Series | TH |
| LACNIC 33 | CO |
| RIPE 80 | DE |
| FIRST Cyber Threat Intelligence Summit (CTI) | CH |
| Foundation Board Meeting 2020 | SG |
| Suricata IDS Tutorial with MYREN Community | MY |
| Securing Internet Routing tutorial (SE Asia/ East Asia) | OPEN |
| Securing Internet Routing tutorial (South Asia) | OPEN |
| Security Analysis Tutorial for Solomon Island Government Data Centre Team | SB |

## JUNE

| | |
|---|---|
| NANOG 79 | US |
| ITU Telecommunication Development Advisory Group Meeting | CH |
| Global Stakeholders Dialogue on the Future of the Internet | FR |
| Introduction to IPv6 Webinar | PH |
| AVPN Conference 2020 | SG |
| Advanced Routing with Multihoming Online Workshop | PK |
| ITU 2020 Council Meeting | CH |
| I-star Leaders Meeting | US |
| DNS OARC 32a Workshop | FR |
| PITA Technical and Business Session | SB |
| PaCSON 2020 Virtual Session | NZ |
| Securing Internet Routing tutorial | OPEN |
| UNIDIR: Implementing Cyber Norms, National Experiences Good Practices | CH |
| RSCG and Legal Team Joint Meeting | NL |
| 2nd MAG Meeting 2020 | CH |
| IX 2020 - Internet Security & Mitigation of Risk Webinar | MN |
| Interim Meeting of the APT-WTSA20 Working Group 3 | TH |
| ARIN 45 | US |
| ROW #9 | US |
| PNGNOG Meet Up* | PG |
| FIRST.org Special Interest Groups (SIGs) Meetings | US |
| ICANN 68 | MY |
| WSIS Forum 2020 | CH |
| HKIGF 2020 | HK |
| ISOC ICOMM Virtual Event (MANRS) | US |
| 38th JPOPM | JP |
| Network Security tutorial (SE Asia / East Asia) | OPEN |
| AFRINIC Webinar 'Internet Infrastructure Support in Times of Crisis' | MU |
| UN INCB - Experts on Drug Trafficking | AT |
| PACNOG 26 | FJ |
| ReversingLabs 2020 | US |
| Networking from Home (South East Asia) | SG |
| Networking from Home (South Asia) | BD |

## JULY

| | |
|---|---|
| UNESCAP Webinar: Bringing affordable and reliable Internet to all (IXP) | TH |
| PaCSON Follow Up Virtual Session | NZ |
| VNNIC-APNIC Engagement Series | VN |
| Securing Internet Routing online tutorial | FJ |
| Network Security tutorial (South Asia) | OPEN |
| Broadband India Forum | IN |
| UN High Level Political Forum on Sustainable Development 2020 | US |
| Network Security tutorial (Oceania) | OPEN |
| PhNOG Virtual 2020 | PH |
| APT WTSA20-3 | CN |
| EU Cyber Direct - Closing the Gap | BE |
| UCEnet / LEA Engagement | NL |
| Networking From Home (East Asia) | HK |
| Fair Tech Forum | SG |
| SANS DFIR Summit | US |
| PhNOG DNSSEC tutorial | PH |
| Security Engagement with PK community | PK |
| ITU-T Study Group 13 Virtual Meeting | CH |
| IAA Webinar: Life Under Lockdown: How to stop heists, hijacks, and hostages | AU |
| ITU-T Study Group 11 Virtual Meeting | CH |
| DNS/DNSSEC tutorial (East Asia/ SE Asia) | OPEN |
| Digital Infrastructure: Building Our Digital World | US |
| Honeynet Threat Sharing Platform Webinar | ID |
| China IGF 2020 | CN |
| IPv6 tutorial | CN |
| APT WTDC21-1 | TH |
| IETF 108 | ES |
| RightsCon Online | US |
| Log Analysis Tutorial for Security Analysts | MN |
| DNS/DNSSEC tutorial (part 1) (South Asia) | OPEN |

## AUGUST

| | |
|---|---|
| KHNOG 2 Online Webinar | HK |
| APAN 50 | HK |
| APAN 50 Introduction to Vulnerability Assessment and Penetration Testing tutorial and Segment Routing tutorial | AU |
| Networking from Home (Oceania) | OPEN |
| DNS/DNSSEC tutorial for Pacific | TH |
| 2nd WG on Pacific IXP and Capacity Training Workshop | US |
| Digital Infrastructure:Equity & Sustainability in Open Source | IN |
| INNOG 3* | SG |
| AVPN Webinar: Shifts in Chinese Private Sector Giving | SG |
| Global Cyber Policy Dialogues: Southeast Asia | IN |
| 7th IRINN OPM | US |
| DNS-OARC 32b | MY |
| RPKI Deployment for Maxis Broadband | SG |
| Global Cyber Policy Dialogues: Southeast Asia | MY |
| Security Webinar with Universiti Teknologi Malaysia | TH |
| 4th AP Information Superhighway (AP-IS) SC 2020 | NL |
| KubeCon + CloudNativeCon Virtual 2020 | PK |
| PKSIG 2020* | RU |
| APAC Online Policy Forum | TH |
| Virtual Interim Meeting of Working Groups of the APT WTSA-20 | OPEN |
| Advanced Routing tutorial (SE Asia/East Asia) | OPEN |
| Advanced Routing tutorial (South Asia) | JP |
| JANOG 46* | TH |
| 17th APT Telecommunication/ICT Development Forum (ADF-17) | MV |
| IPv6 Deployment tutorial | US |

## SEPTEMBER

| | |
|---|---|
| ITU Global Symposium for Regulators 2020 (GSR-20) | CH |
| Advanced Routing tutorial (Oceania) | OPEN |
| APTLD 78 | TW |
| APNIC 50 (AP* and APIX Meeting) | *BD |
| AIS'20 (AFRINIC 32) | CD |

| | |
|---|---|
| EU Cyber Forum 2020 | BE |
| GNA Community VCs 2020Q3 | DK |
| Virtual AusCERT 2020 Conference | AU |
| ITU Global Cyberdrill 2020 (Asia Pacific Regional Dialogue: CIRTs, Lessons Learnt from COVID-19 Crisis and Webinar: How to Reduce Cyber Risk and Increase National Cyber Resilience) | CH |
| IPv6 Deployment tutorial (SE Asia/ East Asia) | GB |
| LINX Presents: Steve Crocker and Geoff Huston | OPEN |
| ITU Interregional Meeting for WTSA-20 | GB |
| ISP start-up webinar | IN |
| SEEDIG 6 | TL |
| UN75 Commemoration | MD |
| ITU-T Telecommunication Standardization Advisory Group (TSAG) Virtual Meeting | US |
| Internet Routing tutorial | CH |
| UN General Debate of 75th Session | TL |
| Microsoft Ignite 2020 | US |
| Web Dialogue: New IP and global Internet governance | US |
| UN Digital Cooperation: Action Today for Future Generations | US |
| IPv6 Deployment tutorial (South Asia) | OPEN |
| HKNOG 9.0* | HK |
| RPKI Support for IN operators | IN |
| Security Workshop (Women in ICT Tonga) | TO |
| APrIGF 2020* | NP |
| AI3 & SOI Asia Joint ONLINE Meeting 2020 FALL | JP |
| DNS-OARC 33 | FR |
| TWNIC RPKI Day | TW |
| APCERT AGM | JP |
| ConnecTechAsia 2020 | SG |
| APT PRFP-13 | TH |
| VNIX-NOG 2020* | VN |
| IPv6 Deployment tutorial (Oceania) | OPEN |
| Security talk for Universiti Kuala Lumpur | MY |

## OCTOBER

| | |
|---|---|
| NetThing 2020* | AU |
| LACNIC 34/LACNOG 2020 | BO |
| 8th INTERPOL-Europol Cybercrime Conference 2020 | NL |
| Slack Frontiers | US |
| IPv6 Deployment online tutorial | BN |
| inSIG 2020 | IN |
| 34th TWNIC OPM | TW |
| bdNOG 12* | BD |
| Cyber Safety Pasifika East Pacific (Tier 2 Internet Fundamentals) | FJ |
| ICANN 69 (22nd AGM) | DE |
| NetHui 2020 | NZ |
| Internet Routing Security tutorial | BD |
| APT WTSA-20 Virtual Interim Meeting for Working Groups | TH |
| ARIN 46 | US |
| APEC TEL 61 | MY |
| btNOG 7* | BT |
| NANOG 80 | US |
| Internet Routing with RPKI - Solomon Islands - Pacific Technical Training Project | SB |
| ISCR 2020 | KR |
| Sri Lanka CERT Cyber Security Week | LK |
| Cyber Safety Pasifika West Pacific (Tier 2 Internet Fundamentals) | VU |
| APT PRF-20 (20th APT Policy and Regulatory Forum) | TH |
| LINX Presents: The Internet model: fit for the future or creaking at the seams? | GB |
| SDN session for Women in ICT Tonga | TO |
| FIRST Regional Symposium Africa & Arab Region Plenary | MU |
| Network Security - Samoa - Pacific Technical Training Project | WS |
| Pacific Women in ICT October Meetup | FJ |
| RIPE 81 | IT |
| mnNOG 2 | MN |
| MNSEC 2020* | MN |
| Cyber Safety Pasifika Tier 2 (Palau) | PW |
| Youth IGF India 2020 | IN |

## NOVEMBER

| | |
|---|---|
| Network Security – Tonga – Pacific Technical Project | TO |
| KrCERT/CC APISC Training 2020 | KR |
| IGF 2020 | PL |
| ITU (RDF) Regional Development Forum for Asia and the Pacifics 2020 | TH |
| ACM SIG Conferences | US |
| bdIGF 2020* | BD |
| Network Security – Vanuatu – Pacific Technical Project | VU |
| TWIGF* | TW |
| Peering Asia 3.5v | TH |
| KRNIC/KISA Engagement Series | KR |
| Pacific IXP – First National Consultation | NZ |
| IETF 109 | TH |
| Network Security - Solomon Islands - Pacific Technical Training Project | SB |
| APT WTSA20-4 | TH |
| Annual FIRST Conference 2020 | CA |
| ITU 2020 Council - 2nd Virtual Consultation | CH |
| IPv6 training x2 | CN |
| Pacific Cyber Dialogue | PG |
| Digital Pacific Conference 2020 | WS |
| Internet Week Japan 2020 | JP |
| RPKI India Webinar 2 | IN |
| Beyond APIGA 2020 | KR |
| APSIG 2020* | NP |
| IPv6 tutorial | KH |
| OIC-CERT Conference 2020 | MY |
| GFCE Annual Meeting 2020 | CH |
| Segment Routing tutorial South Asia | OPEN |
| 1 C/D Digital Inclusion Roundtable discussion / Roadmap for Digital Cooperation | US |
| Marshall Center iPCSS | DE |

## DECEMBER

| | |
|---|---|
| PacNOG 27 | FJ |
| Segment Routing tutorial | OPEN |
| BTCIRT Community Workshop | BT |
| Dreamforce 2020 | AU |
| IDNIC AMM 2020 | ID |
| Introduction to SDN tutorial | MM |
| ITU-T Study Group 11 and 13 | CH |
| Connections 2020 | IN |
| Segment Routing tutorial Oceania | OPEN |
| MANRS Tech Talk with Geoff Huston | AU |
| bSides Brisbane 2020 | AU |
| APT Training – ICT and Policy Regulation | IN |
| CNCERT International Partnership in Emergency Response Conference | CN |
| LKNOG 4 | LK |
| CSIRT.id Virtual Seminar | ID |

# APNIC

**Helpdesk**
Monday–Friday 09:00–21:00 (UTC +10)

**Postal address**
PO Box 3646
South Brisbane, QLD 4101,
Australia

**Email**
helpdesk@apnic.net

**Phone**
+61 7 3858 3188

**SIP**
helpdesk@voip.apnic.net

**Skype**
apnic-helpdesk

**www.apnic.net**

ABN 42 081 528 010

# APNIC

addressing the Internet in the Asia Pacific

# 2021

# Activity Plan and Budget

# Contents

# Introduction

This document explains APNIC's 2021 Activity Plan and Budget, for the information of APNIC Members and the wider community.

Under the Four Year Strategic Plan (2020-2023), adopted by the APNIC Executive Council (EC) on 3 December 2019, activity is structured under five pillars and 18 workstreams, aligned with APNIC's vision and mission.

The five pillars are:

| Membership | Registry | Development | Information | Capability |
|---|---|---|---|---|

The 2021 Activity Plan and Budget describes activities according to the same structure; and provides under each workstream, the activities that are planned for 2021, along with budget allocations.

Feedback on the 2021 Activity Plan and Budget is welcome. If you would like to comment, **please contact the APNIC Executive Council (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

# Strategic Pillars

The Four Year Strategic Plan (2020-2023) defines five 'pillars' of APNIC activity.

## 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.

# APNIC Workstreams

The Four Year Strategic Direction (2020-2023) defines 18 workstreams, across the 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.*

# 2021 Activity Summary

The following table and chart provide a breakdown of APNIC's 2021 budget by pillar and workstream. Activities funded by the APNIC Foundation are not included in APNIC's budget below but are detailed in Appendix 4 and illustrated on page 8 for clarity.

| Pillar | | FTE | | Expenses (AUD) | | CAPEX (AUD) | |
|---|---|---|---|---|---|---|---|
| 1 | Membership | 22.42 | 24% | 5,441,868 | 21% | - | 0% |
| 2 | Registry | 14.21 | 15% | 3,968,674 | 16% | - | 0% |
| 3 | Development | 26.08 | 28% | 7,118,088 | 28% | 118,150 | 4% |
| 4 | Information | 6.54 | 7% | 1,784,352 | 7% | 80,000 | 3% |
| 5 | Capability | 23.75 | 26% | 7,190,675 | 28% | 2,543,200 | 93% |
| **Grand Total** | | **93.00** | **100%** | **25,503,657** | **100%** | **2,741,350** | **100%** |

FTE

93.0

Expenses

25,503,657

CAPEX

2,741,350
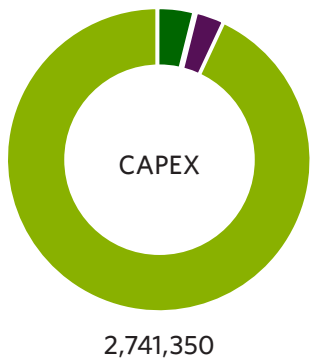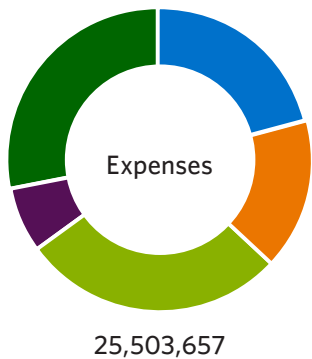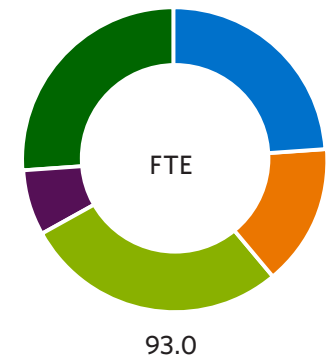
Membership
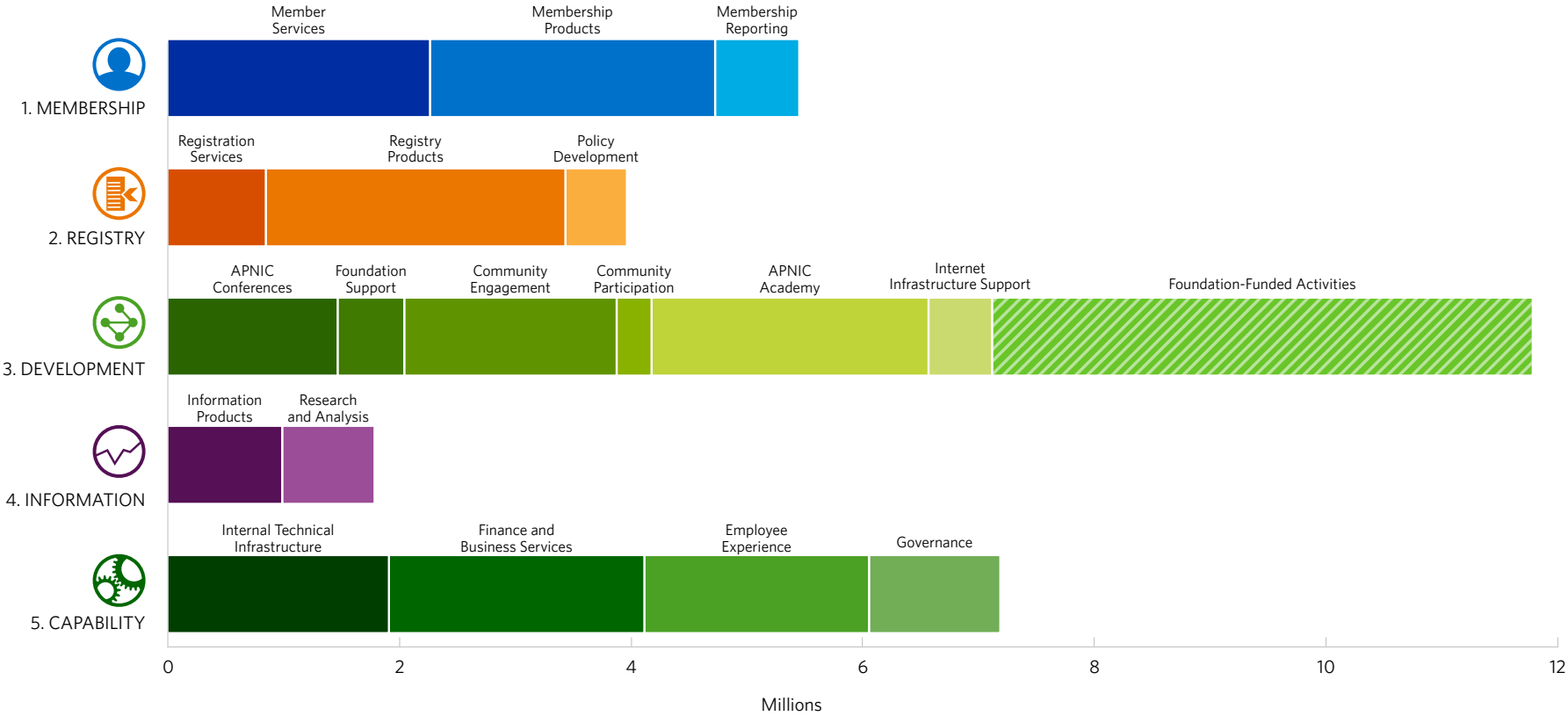
Registry

Development

Information

Capability

# 2021 Budget Expense Distribution



Foundation-funded activities are detailed in Appendix 4 (page 57).

# Notes on the Activities

APNIC's activities are reported in this document under the 18 workstreams and five pillars described in the previous section:

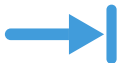Membership            Registry            Development            Information            Capability

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. Where these investments are funded by the APNIC Foundation (not Member funds), it is clearly noted.

Please refer to the online **APNIC Glossary** for further explanation of technical terms used in this document.

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.

**3** **CAPEX**: Provides the provision for capital expenditure required by the activity.

# 1. MEMBERSHIP

The objectives of the Membership pillar are:

• 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

The workstreams within the Membership pillar include:

1A. Member Services
1B. Membership Products
1C. Membership Reporting

# 1A. **Member Services**

Deliver excellence in service and value to Members through active and quality engagement.

## OPERATIONS

| Activities | Success Measures |
|---|---|

### 1A.1. Member service delivery ↻

Ongoing service to Members in relation to APNIC products and services.  In 2020, APNIC handled a quarterly average of more than 7,000 Member requests, 870 online chat sessions, and generated and reconciled more than 10,000 Member invoices.

Helpdesk automation and self-service tools will be deployed this year to manage increased workload from membership growth.

1. Maintain Helpdesk SLA of two business day response to enquiries (>99.90%).

2. Maintain service satisfaction ratings of at least 93% "excellent and above average" feedback.

3. All "poor and below average" feedback is followed-up and actioned.

4. Proactive Member service engagement in a minimum of 47 economies.

## RESOURCING

|  | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 8.58 | $2,253,270 | - |
| Investments | - | - | - |
| Workstream total | 8.58 | $2,253,270 | - |

# 1A. **Member Services** – continued

| Activities | Success Measures |
|---|---|
| **1A.2. Member experience** | |
| Capture and analysis of Member feedback on APNIC products and services, for quality control and continuous improvement. | 1. All improvement suggestions received from all feedback channels are followed up and actioned.<br><br>2. All critical and high accessibility issues are resolved.<br><br>3. Grow product and service user feedback group from 300 to 500 members.<br><br>4. One-on-one feedback sessions with at least 50 Members. |
| **1A.3. Membership development** | |
| Ensure that those organizations that may need APNIC products and services such as ISPs, data centres, banks and financial institutions, government agencies and enterprises can discover and access them. | 1. At least eight membership development activities, in economies with low membership relative to their Internet growth potential.<br><br>2. Total number of Members to match or exceed the 2021 budget assumption of 8,940. |

# 1B. **Membership Products**

Apply best practice in development of membership products which meet Members' needs and exceed their expectations.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **1B.1. Membership product management** ⟳ | |
| Operation, development and maintenance of APNIC Membership products, including MyAPNIC, community platforms, online forms and voting systems.<br><br>A new online Member Help Centre will be deployed in 2021. | 1. Member Help Centre deployed.<br><br>2. Migrate 100% of APNIC Logins to a new identity management system.<br><br>3. Establish comprehensive testing infrastructure for membership product applications.<br><br>4. Deliver problem-free EC, NRO and SIG Elections via BigPulse. |

## RESOURCING

|  | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 10.98 | $2,208,861 | - |
| Investments | 1.30 | $264,474 | - |
| Workstream total | 12.28 | $2,473,335 | - |

# 1B. **Membership Products** – continued

## INVESTMENTS

| | Objectives | Benefits to Members |
|---|---|---|
| **Online community platform** → | | |
| **Validate community requirements and prototype an online platform through APNIC Academy for community members to share knowledge and experience, and participate in discussions. Complete further user research to establish if community need exists to expand the platform to other areas in future.** | Identify and implement a platform to serve APNIC Academy's user communications needs.<br><br>Configure and populate the platform for the initial scope of the APNIC Academy.<br><br>Monitor prototype and research community for potential expansion across other APNIC services if needed. | Network operators can better learn from each other's experience.<br><br>Allows network operators to find answers to common questions and issues.<br><br>Replace or augment aging mailing list facilities.<br><br>Promotes online engagement between the APNIC community. |

# 1C. Membership Reporting

Ensure that APNIC remains fully accountable to its Members, by providing timely and accurate information about APNIC operations.

## OPERATIONS

| Activities | Success Measures |
| --- | --- |
| **1C.1. Planning and reporting** | |
| Develop and publish APNIC's 2021 Activity Plan and Budget, Four Year Strategy document, 2020 Annual Report, and other reports to the community at events, as part of APNIC's commitment to transparency and accountability. | 1. Publishing of required reports on the day of the APNIC Member Meetings.<br><br>2. Publishing of EC Minutes within two months of each EC meeting.<br><br>3. Event Wraps published for 100% of reportable events within one month of event. |

## RESOURCING

| | FTE | Expenses | CAPEX |
| --- | --- | --- | --- |
| Operations | 1.56 | $715,263 | - |
| Investments | - | - | - |
| Workstream total | 1.56 | $715,263 | - |

# 2. REGISTRY

The objectives of the Registry pillar are:

• 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

The workstreams within the Registry pillar include:

2A. Registration Services
2B. Registry Products
2C. Policy Development

# 2A. Registration Services

Provide delegation and registration services for Internet numbers (ASN, IPv4, IPv6) according to the community developed policies.

## OPERATIONS

| Activities | Success Measures |
| --- | --- |

### 2A.1. IPv4, IPv6 and ASN delegation and registration services ↻

Provide delegation and registration services for Internet numbers according to current policies. In 2020, APNIC processed 5,400 resource delegations and transfer requests. It is assumed that this activity will continue at a similar level in 2021.

More efforts will be made to promote and support IPv4 transfers, to those Members who need them.

1. Maintain Registration Services SLA of two business day response to enquiries (>99.90%).

2. Increase percentage of Members holding IPv6 address space to 70%.

## RESOURCING

|  | FTE | Expenses | CAPEX |
| --- | --- | --- | --- |
| Operations | 4.53 | $842,899 | - |
| Investments | - | - | - |
| Workstream total | 4.53 | $842,899 | - |

## 2A. **Registration Services** – continued

| Activities | Success Measures |
|---|---|
| **2A.2. Maintain correct and current registry data** | |
| Encourage Members to improve and maintain accuracy and currency of their registry data. | 1. Comply with NRO-defined Identifier Technology Health Indicators (ITHI) reporting.<br><br>2. Increase rate of validation by Members of registration records. |
| **2A.3. Reclaiming unused IPv4 address space** | |
| Identify and contact holders of unused IPv4 address space to encourage the return or transfer of unused resources; promote and support IPv4 transfers, from Members holding unused resources. | 3. All unrouted historical resource prefixes identified under policy prop-017 are claimed, transferred, or returned to APNIC. |

## 2B. **Registry Products**

Maintain an accurate number registry and reliable registry services.

### OPERATIONS

| Activities | Success Measures |
| --- | --- |
| **2B.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. | 1. Implement the NIR API and operate in conjunction with the NIRs.<br><br>2. Create initial design documentation for the "Next-generation Registry" by the end of Q4. |

### RESOURCING

| | FTE | Expenses | CAPEX |
| --- | --- | --- | --- |
| Operations | 9.04 | $2,580,512 | - |
| Investments | - | - | - |
| Workstream total | 9.04 | $2,580,512 | - |

## 2B. **Registry Products** – continued

| Activities | Success Measures |
|---|---|
| **2B.2. Registry product management** | |
| Operate, develop and maintain APNIC Registry products including whois, RDAP, RPKI, RDNS and IRR.<br><br>This includes participation in related IETF standardization work. | 1. Implement a bulk update method to improve usability of the MyAPNIC Routing Management feature.<br><br>2. Improved support for "BYO IP" services in MyAPNIC.<br><br>3. Create a public specification of a general Member registry API.<br><br>4. Implement the NIR KPI monitor for RPKI. |

## 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 processes and community expectations.

### OPERATIONS

| Activities | Success Measures |
|---|---|

**2C.1. Policy development**

| Facilitate the open Policy Development Process to ensure that APNIC resource policies are developed according to agreed rules and community expectations. This includes support for: | 1. Achieve minimum overall satisfaction rating of 6/7 from Policy Chairs in annual review of SIG Chair support. |
|---|---|

- Policy SIG meetings (twice per year) and mailing lists

- Exchange of policy-related information with other RIRs

- ASO Address Council Members and processes in the APNIC region

### RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 0.64 | $545,263 | - |
| Investments | - | - | - |
| Workstream total | 0.64 | $545,263 | - |

## 2C. **Policy Development** - continued

| Activities | Success Measures |
|---|---|
| **2C.2. Policy implementation** | |
| Initiate and coordinate the implementation of approved resource policies in a timely and effective manner. | 1. Meet 100% of implementation timelines. |
| **2C.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. | 1. Deliver two policy analysis presentations at SIG meetings.<br><br>2. Publish a policy proposals analysis before each Policy SIG meeting. |

# 3. DEVELOPMENT

The objectives of the Development pillar are:

• Invest in sustainable development of the regional Internet community, industry and infrastructure
• Build capacity for best-practice Internet operations across the Internet technical community

The workstreams within the Development pillar include:

3A. APNIC Conferences
3B. Foundation Support
3C. Community Engagement
3D. Community Participation
3E. APNIC Academy
3F. Internet Infrastructure Support

# 3A. **APNIC Conferences**

Deliver engaging and relevant APNIC conferences for learning, sharing ideas and experience, professional networking, and Internet policy development.

## OPERATIONS

| Activities | Success Measures |
|---|---|

**3A.1. APNIC conferences**

Deliver well-organized, high-quality events for the APNIC community with consistently interesting and relevant program content.  Due to ongoing travel restrictions, APRICOT 2021 will be a virtual event and APNIC 52 will likely be held wholly online.

- APRICOT 2021
  (22 February – 4 March 2021)

- APNIC 52
  (8 – 16 September 2021)

1. Achieve total attendance of 1,000 delegates across two conferences.

2. Achieve 6,000 remote conference session views.

3. Achieve average conference participant satisfaction survey rating of 90%.

4. Achieve average participant satisfaction of 85% for speakers.

5. Select and integrate online meeting technologies to provide a seamless online experience for APNIC 51 and 52.

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 4.74 | $1,352,760 | $43,150 |
| Investments | 0.30 | $113,403 | - |
| Workstream total | 5.04 | $1,466,163 | $43,150 |

## 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 52.<br><br>Develop an "online fellowships" program of activity if APNIC 52 becomes online-only due to COVID travel restrictions. | Diversity of participation in APNIC conferences.<br><br>Opportunities for more Members to attend APNIC conferences. |

# 3B. **Foundation Support**

Provide financial and operational support to ensure the success of the APNIC Foundation.

## INVESTMENTS

| | Objectives | Benefits to Members |
|---|---|---|
| **Operational and administrative support** ➜ | | |
| **Operational and Administrative Support** Provision for support for Foundation operations and administration, according to APNIC standards and underwritten by APNIC in accordance with the AoC of 2018: <br>• **Three full time staff seconded to the Foundation** <br>• **Up to a total of 1.58 FTE in operational support** <br>• **Office space, equipment and online systems support as required** | Provide support required for smooth and reliable Foundation operations while it progresses towards self-funding. | A well-run Foundation delivering successful and valuable Internet development activities in the APNIC region. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | - | - | - |
| Investments | 1.58 | $571,518 | - |
| Workstream total | 1.58 | $571,518 | - |

# 3C. Community Engagement

Build and maintain close and meaningful relationships between APNIC and its various communities.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **3C.1. Technical community support** ↻ | |
| Sponsor and participate in NOGs, IXPs, Peering Forums; and Research & Education activities. | 1. Sponsor or participate in 30 technical community events including NOGs, Peering Forums and Research & Education events.<br><br>2. Support 20 NOGs to conduct online events if physical events are not possible.<br><br>3. Facilitate and support two new/revived NOGs in two sub-regions. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 6.38 | $1,826,724 | - |
| Investments | - | - | - |
| Workstream total | 6.38 | $1,826,724 | - |

## 3C. **Community Engagement** – continued

| Activities | Success Measures |
|---|---|
| **3C.2. Security community support** | |
| Work with security organizations such as APCERT, FIRST, and local CERTs/CSIRTs; support the development of CERT/CSIRTs, and cybersecurity best practices. | 1. Sponsor or participate in 10 security community events.<br><br>2. Support targeted development of four new/ existing CERTs/CSIRTs.<br><br>3. Deliver six presentations/training sessions on the Security Threat Sharing Platform. |
| **3C.3. Internet organization cooperation** | |
| Play a responsible role in the global Internet ecosystem through active collaboration with other Internet organizations such as the NRO, RIRs, ICANN, IETF, ISOC and others. | 1. Participate in all NRO and 'I*' coordination meetings.<br><br>2. Participate in all NIR and RIR Open Policy Meetings. |

## 3C. **Community Engagement** – continued

| Activities | Success Measures |
| --- | --- |
| **3C.4. Internet governance participation** | |
| Strengthen global Internet governance by continued support for the IGF and related events at a regional and national level, such as APrIGF, Nethui and others. | 1. Sponsor and participate in APrIGF and IGF with workshop proposals, MSG/MAG participation, and speaking roles.<br><br>2. Participate in at least three national Internet governance initiatives.<br><br>3. Sponsor and participate in at least two schools of Internet governance. |
| **3C.5. Government engagement** | |
| Participate in inter-governmental forums such as ITU, APT and APECTEL, and engage with relevant government and public safety agencies in the region, advocating for APNIC's vision and mission, technical capacity building and adoption of best practices. | 1. Participate in at least 12 engagements with governments/intergovernmental organizations.<br><br>2. Participate in at least three capacity building partnerships with governments/ intergovernmental organizations.<br><br>3. Participate in six engagements with the Public Safety community. |

## 3C. **Community Engagement** – continued

| Activities | Success Measures |
|---|---|
| **3C.6. External relations coordination** ⟳ | |
| Coordination of external relations and sub-regional engagements across all stakeholder segments above. | 1. Facilitate one External Relations coordination retreat.<br><br>2. Facilitate 10 External Relations team coordination meetings. |

# 3D. Community Participation

Encourage awareness, diversity, participation, and leadership in APNIC processes, events, and activities.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **3D.1. Community-led processes** ⟳ | |
| Increase awareness of, and continuing participation in, community-led APNIC processes including the PDP, SIGs (Policy, Cooperation, NIR, Routing Security), and BoFs. Both online and face-to-face participation is encouraged.<br><br>Complete the SIG Guidelines review community consultation and implementation. | 1. Achieve 800 online SIG participants across two conferences.<br><br>2. Grow SIG mailing lists subscribers from 1,268 to 1,325.<br><br>3. Achieve 6,000 remote conference session views.<br><br>4. Achieve attendance of 1,000 conference delegates across two conferences. |

## RESOURCING

|  | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 1.52 | $310,076 | - |
| Investments | - | - | - |
| Workstream total | 1.52 | $310,076 | - |

# 3D. **Community Participation** - continued

| Activities | Success Measures |
|---|---|
| **3D.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. | 1. Grow all-time Blog views from 2.6 million to 3.4 million.<br><br>2. Increase 12-month tweet engagements from 60,000 to 62,000.<br><br>3. Increase annual Facebook posts reach from 3 million to 3.2 million. |
| **3D.3. Encouraging newcomers and diversity** | |
| Encourage new and continuing participants from diverse backgrounds in the APNIC community — both online and face-to-face — particularly the next generation of network engineers. | 1. Attract 400 newcomers to APNIC conferences.<br><br>2. Attract 125 new Blog email subscribers to reach 1,225 total.<br><br>3. Grow Twitter followers from 12,100 to 13,250. |

# 3E. **APNIC Academy**

Scale up training and technical assistance infrastructure with high-quality training content and curriculum.

## OPERATIONS

| Activities | Success Measures |
| --- | --- |

**3E.1. Product management** ⟳

| | |
| --- | --- |
| Operate and maintain APNIC Academy products and services including the Academy online portal and curriculum for instructor-led and self-paced training. | 1. Migrate legacy training site information to APNIC Academy and decommission previous site.<br><br>2. Develop a comprehensive curriculum of blended learning for future certification. |

**3E.2. Instructor-led training [Foundation-funded (partial) – see Appendix 4]** ⟳

| | |
| --- | --- |
| Deliver instructor-led training around the APNIC region (face-to-face, online or hybrid) to increase knowledge and skills in the community. While pandemic travel restrictions persist, this training will be provided remotely. | 1. Develop two new/updated courses for instructor-led tutorials/workshops.<br><br>2. Conduct 70 instructor-led tutorials/ workshops across four sub-regions.<br><br>3. Conduct 18 live webinars. |

## RESOURCING

| | FTE | Expenses | CAPEX |
| --- | --- | --- | --- |
| Operations | 10.04 | $2,269,250 | $15,000 |
| Investments | 0.76 | $122,972 | - |
| Workstream total | 10.80 | $2,392,222 | $15,000 |

## 3E. **APNIC Academy** - continued

| Activities | Success Measures |
|---|---|
| **3E.3. Self-paced training** | |
| Provide on-demand, self-paced online courses and virtual labs to increase knowledge and skills in the community via the APNIC Academy platform. | 1. Publish four new/revised self-paced online courses.<br><br>2. Publish five new self-paced Virtual Labs (associated with multiple courses). |
| **3E.4. 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. | 1. Begin conducting technical assistance via the APNIC Academy online platform. |

## 3E. **APNIC Academy** - continued

| Activities | Success Measures |
|---|---|
| **3E.5. 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. | 1. Conduct eight RPKI/ROV focused instructor-led tutorials/workshops spread equally across sub-regions.<br><br>2. Achieve 90% ROA coverage for four additional economies.<br><br>3. Publish four RPKI/ROA/ROV deployment case studies. |
| **3E.6. 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. | 1. Conduct eight IPv6 deployment focused instructor-led tutorials/workshops spread equally across sub-regions.<br><br>2. Publish three IPv6 deployment case studies. |

# 3E. **APNIC Academy** - continued

## INVESTMENTS

| Objectives | | Benefits to Members |
|---|---|---|

### 3E.7. Platform and curriculum development [Foundation-funded – see Appendix 4] ➔|

| | | |
|---|---|---|
| **Develop integrated APNIC Academy online platform to support training and technical assistance and develop a comprehensive curriculum for self-paced and instructor-led training to help meet increasing community demand for technical skills development.** | Integrate various training systems (including registration, calendar and training wiki) into the APNIC Academy platform.<br><br>Establish online technical assistance functionality to connect Members with community experts.<br><br>Extend multilingual support to more courses.<br><br>Build a comprehensive Internet infrastructure-focused training curriculum ready for future certification. | Improved access to training and technical assistance.<br><br>Improved technical capacity in the APNIC region. |

# 3E. **APNIC Academy** - continued

| | Objectives | Benefits to Members |
|---|---|---|

## 3E.8.    Community Trainers network [Foundation-funded – see Appendix 4] �

| | | |
|---|---|---|
| **Recruit, retain and develop more Community Trainers to expand the scope and effectiveness of APNIC Academy training to help meet increasing community demand for technical skills development.** | Provide relevant, best practice technical training at a local level (and in local language where needed).<br><br>Develop and maintain a sustainable, scalable model to support the Community Trainers network. | Local support for APNIC training and technical assistance.<br><br>Increased instructor-led APNIC training in targeted economies.<br><br>Options for training in local language and improved translation support for training content. |

## 3E.9.    Curriculum for non-technical audiences [Foundation-funded – see Appendix 4] ➥

| | | |
|---|---|---|
| **Build introductory courseware about fundamental Internet concepts, IP address management, and Internet governance to help non-technical audiences better understand Internet operations and improve interactions with the technical community.** | Develop a digital educational game to increase understanding of Internet fundamentals among newcomers, government representatives and other non-technical audiences. | More informed government decision-making on issues that impact Internet operations.<br><br>Better prepared fellows for APNIC conference participation.<br><br>More meaningful engagements with non-technical audiences. |

# 3F. Internet Infrastructure Support

Promote and support the deployment of critical Internet infrastructure and deploy tools for operational infrastructure monitoring.

## OPERATIONS

| Activities | Success Measures |
| --- | --- |
| **3F.1. Internet infrastructure development** | |
| Support the deployment and management of IXPs (with technical assistance), DNS anycast rootservers and ROV support, and deployment of anchors and probes for the RIPE Atlas program. | 1. Support deployment of two new or upgraded IXPs.<br><br>2. Support four additional IXPs to deploy RPKI/ROV on their route servers.<br><br>3. Deploy or upgrade four RIPE Atlas anchors at various networks.<br><br>4. Deploy 12 new root server instances. |
| **3F.2. Community Honeynet and Security Threat Sharing Platform** | |
| Maintain and grow the APNIC Community Honeynet and Security Threat Sharing Platform to help network operators understand online adversaries. | 1. Increase Community Honeynet partners from 10 to 15. |

## RESOURCING

| | FTE | Expenses | CAPEX |
| --- | --- | --- | --- |
| Operations | 0.63 | $530,967 | $60,000 |
| Investments | 0.13 | $20,417 | - |
| Workstream total | 0.76 | $551,384 | $60,000 |

## 3F. **Internet Infrastructure Support** - continued

### INVESTMENTS

| | Objectives | Benefits to Members |
|---|---|---|

**3F.3. M-Root anycast instance deployment support [Foundation-funded – see Appendix 4] ⇥**

| | | |
|---|---|---|
| **Collaborate with the WIDE Project and JPRS to accelerate anycast deployment of M-Root around the region in order to improve the DNS infrastructure in the region.** | Help streamline M-Root deployment and operations by improving process and automation. <br><br> Deploy new M-Root instances around the region. | Faster and more reliable DNS service. <br><br> Faster and easier deployment of Root DNS anycast instances at desirable or underserved locations. |

# 4. INFORMATION

The objective of the Information pillar is:

• Support Internet development with needed network information services and research outcomes which are of demonstrated value to the community

The workstreams within the Information pillar include:

4A. Information Products
4B. Research and Analysis

# 4A. **Information Products**

Provide meaningful information services to the communities APNIC serves.

## OPERATIONS

| Activities | Success Measures |
|---|---|

### 4A.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. | 1. Grow all-time Blog views from 2.6 million to 3.4 million.<br><br>2. Average 66,000 Blog views per month.<br><br>3. Maintain Blog Guest Post ratio between 45-65%. |

### 4A.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. | 1. Reach 400 users per month to NetOX and DASH, and 700 users per month to the Internet Directory.<br><br>2. Achieve a net promoter score of 80+ for all products.<br><br>3. Achieve a usability score of at least 4.5/5 for all products. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 5.52 | $985,151 | - |
| Investments | - | - | - |
| Workstream total | 5.52 | $985,151 | - |

# 4B. **Research and Analysis**

Analyse the pressures shaping the evolution and future demands of Internet names and numbers infrastructure, and their impacts.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **4B.1. Conducting research and measurements** | |
| Conduct research experiments on topics including IP addressing, routing, DNS and other critical Internet infrastructure matters. | 1. Twelve research articles and reports published. |
| **4B.2. Cooperative research opportunities** | |
| Engage in research partnerships with other reputable organizations. | 1. Conduct cooperative research with organizations such as CloudFlare, ICANN, RIPE NCC and others. |
| **4B.3. 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. | 1. Ten research presentations delivered.<br><br>2. At least two research presentations at APNIC conferences. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 1.02 | $799,201 | $80,000 |
| Investments | - | - | - |
| Workstream total | 1.02 | $799,201 | $80,000 |

# 5. CAPABILITY

The objectives of the Capability pillar are:

• 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

The workstreams within the Capability pillar include:

5A. Internal Technical Infrastructure
5B. Finance and Business Services
5C. Employee Experience
5D. Governance

# 5A. **Internal Technical Infrastructure**

Provide stable and secure technical infrastructure to support APNIC operations and services.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **5A.1. Architecture and technical coordination** | |
| Manage and improve APNIC's information architecture for better integration and coordination of systems and business processes. | 1. Complete review of testing environment and practices. |
| **5A.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. | 1. Complete quarterly data centre failover tests.<br><br>2. Upgrade internal infrastructure NOC from overnight 'on-call' to full 24x7 operation.<br><br>3. Maintain availability of 99.99% for critical APNIC services and 99.95% for less-critical services. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 6.00 | $1,623,421 | $353,200 |
| Investments | 0.20 | $279,611 | - |
| Workstream total | 6.20 | $1,903,032 | $353,200 |

# 5A. **Internal Technical Infrastructure** - continued

| Activities | Success Measures |
|---|---|
| **5A.3. System and platform operations** | |
| Migrate suitable services to virtualized and 'cloud' infrastructure to improve online service performance; manage IT assets including maintenance, depreciation, and licensing associated with APNIC systems. | 1. Develop strategy for cloud and interconnection.<br><br>2. Complete service migration to cloud for six services/websites. |
| **5A.4. Internal security operations** | |
| Maintain strong internal security practices and a CSIRT to strengthen security incident response and management (relating to APNIC systems and services). | 1. Achieve readiness for ISO27001 certification.<br><br>2. Track and resolve all vulnerability reports within 90 days. |
| **5A.5. Enterprise application management** | |
| Manage and improve enterprise applications supporting APNIC operations.  In 2021, APNIC's CRM will be extended to provide the online Member Help Centre. | 1. CRM roadmap established. |

## 5A. **Internal Technical Infrastructure** - continued

### INVESTMENTS

| | Objectives | Benefits to Members |
|---|---|---|
| | | |

5A.6.   Product platform development ➝|

| | | |
|---|---|---|
| **Further development of infrastructure and services platforms common to APNIC products to streamline product development, integration and consistency.** | Develop common software services used by multiple APNIC products, including Single Sign-On improvements and event notifications.<br><br>Improve product development infrastructure and techniques (DevOps) for more effective product deployment. | Standardized user experience across products.<br><br>Faster access to new products and services.<br><br>Improved maintenance of online infrastructure to reduce operational risk. |

# 5B. **Finance and Business Services**

Provide efficient and robust finance and business services and facilities to effectively support APNIC's operations.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **5B.1. Internal knowledge management** | |
| Maintain effective methods, structures and tools to retain and retrieve corporate information within APNIC. | 1. Successful implementation of internal knowledge management tools with increased user satisfaction and experience. |
| **5B.2. Financial services** | |
| Undertake transparent and efficient management and reporting of APNIC's financial affairs. Start preparations for application for new special tax ruling for 2022/23. | 1. Achieve a successful audit of APNIC's annual financial accounts. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 10.14 | $2,207,847 | $30,000 |
| Investments | - | - | - |
| Workstream total | 10.14 | $2,207,847 | $30,000 |

## 5B. **Finance and Business Services** - continued

| Activities | Success Measures |
|---|---|
| **5B.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. | 1. Complete annual ISO Quality management compliance audit successfully.<br><br>2. Undertake quarterly BCP scenario testing. |
| **5B.4. Data governance and business intelligence** ⟳ | |
| Establish a comprehensive business intelligence (BI) facility that integrates data from a range of systems to produce better analysis and consistent reporting. | 1. Complete APNIC-wide data model and data dictionary.<br><br>2. Generate all Secretariat report data/charts from BI system. |

# 5C. **Employee Experience**

Attract, develop and retain talented, service-oriented people to deliver APNIC's mission and exceed organization and community expectations.

## OPERATIONS

| Activities | Success Measures |
|---|---|

**5C.1. Organizational development**

| | |
|---|---|
| Optimize organizational structure for the achievement of Member-focused objectives, with clear lines of accountability. | 1. Strategic goals clearly cascade to individual performance measures in performance management system in 2021.<br><br>2. Deploy agile work practices across the organization. |

**5C.2. Work environment management**

| | |
|---|---|
| Ensure all places of work for APNIC staff (both the office and remote locations) are fit for purpose, and safe. | 1. No WHS incidents caused by APNIC's local or remote work environments — zero fault incident reports. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 4.13 | $1,795,224 | - |
| Investments | 0.52 | $150,765 | $2,160,000 |
| Workstream total | 4.65 | $1,945,989 | $2,160,000 |

## 5C. **Employee Experience** - continued

| Activities | Success Measures |
| --- | --- |
| **5C.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. | 1. Maintain staff turnover rate within acceptable benchmarks of 5-15%.<br><br>2. Training budget is 100% allocated and distributed across the organization. |
| **5C.4. People operations management** | |
| Aim to provide policies and benefits that meet current best practice for market competitiveness and employee retention. | 1. All HR policies, in particular, flexible work, parental leave and oncall allowance policies, reflect best practice. |

# 5C. **Employee Experience** - continued

## INVESTMENTS

| | Objectives | Benefits to Members |
|---|---|---|

### 5C.5. Agile APNIC ➝|

| | | |
|---|---|---|
| **Expand adoption of Agile methodologies to non-technical teams within APNIC.** | Enhance collaboration, accountability and efficient workload distribution (in an environment of increased remote working). | A focus on continuously improving operations and performance. |

### 5C.6. People management portal ➝|

| | | |
|---|---|---|
| **Procure and implement a cloud-based solution to unify recruitment, onboarding, performance management, learning and development, salary data and reporting under one HR platform.** | Use a comprehensive platform to manage a more distributed workforce including non-employees (Community Trainers, consultants). | Improved reporting on HR analytics.<br><br>Reduced HR administration to focus instead on improvement initiatives. |

# 5C. **Employee Experience** - continued

| | Objectives | Benefits to Members |
|---|---|---|
| **5C.7. APNIC workspace remodelling** ➞ | | |
| **On the 10-year anniversary of the establishment of the current Brisbane office, remodel premises to accommodate an increased workforce and better integrate with remote working and hot-desking practices.** | Adapt to changing office usage patterns and staff growth in a cost-effective way that meets all health and safety obligations. | Improved organizational flexibility and productivity. Allows full benefits of a distributed workforce. |

# 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.

## OPERATIONS

| Activities | Success Measures |
|---|---|
| **5D.1. Executive Council (EC) support** | |
| Facilitate EC processes and activities of the highest integrity, in line with the APNIC By-laws and Member expectations, and support EC members to perform their roles. | 1. Achieve a high level of satisfaction from a survey of EC members. |
| **5D.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. | 1. Quarterly Strategic Risk Register updated and reviewed. |

## RESOURCING

| | FTE | Expenses | CAPEX |
|---|---|---|---|
| Operations | 2.77 | $1,133,807 | - |
| Investments | - | - | - |
| Workstream total | 2.77 | $1,133,807 | - |

# Budget Summary

| Activity | FTE | % | Expenses (AUD) | % | CAPEX (AUD) | % |
|---|---|---|---|---|---|---|
| **1. Membership** | **22.42** | **24%** | **5,441,868** | **21%** | **-** | **-** |
| 1A. Member Services | 8.58 | 9% | 2,253,270 | 9% | - | - |
| 1B. Membership Products | 12.28 | 13% | 2,473,335 | 10% | - | - |
| 1C. Membership Reporting | 1.56 | 2% | 715,263 | 3% | - | - |
| **2. Registry** | **14.21** | **15%** | **3,968,674** | **16%** | **-** | **-** |
| 2A. Registration Services | 4.53 | 5% | 842,899 | 3% | - | - |
| 2B. Registry Products | 9.04 | 10% | 2,580,512 | 10% | - | - |
| 2C. Policy Development | 0.64 | 1% | 545,263 | 2% | - | - |
| **3. Development** | **26.08** | **28%** | **7,118,088** | **28%** | **118,150** | **4%** |
| 3A. APNIC Conferences | 5.04 | 5% | 1,466,163 | 6% | 43,150 | 2% |
| 3B. Foundation Support | 1.58 | 2% | 571,518 | 2% | - | - |
| 3C. Community Engagement | 6.38 | 7% | 1,826,724 | 7% | - | - |
| 3D. Community Participation | 1.52 | 2% | 310,076 | 1% | - | - |
| 3E. APNIC Academy | 10.80 | 12% | 2,392,222 | 9% | 15,000 | 1% |
| 3F. Internet Infrastructure Support | 0.76 | 1% | 551,384 | 2% | 60,000 | 2% |
| **4. Information** | **6.54** | **7%** | **1,784,352** | **7%** | **80,000** | **3%** |
| 4A. Information Products | 5.52 | 6% | 985,151 | 4% | - | - |
| 4B. Research and Analysis | 1.02 | 1% | 799,201 | 3% | 80,000 | 3% |
| **5. Capability** | **23.75** | **26%** | **7,190,675** | **28%** | **2,543,200** | **36%** |
| 5A. Internal Technical Infrastructure | 6.20 | 7% | 1,903,032 | 7% | 353,200 | 13% |
| 5B. Finance and Business Services | 10.14 | 11% | 2,207,847 | 9% | 30,000 | 1% |
| 5C. Employee Experience | 4.65 | 5% | 1,945,989 | 8% | 2,160,000 | 79% |
| 5D. Governance | 2.77 | 3% | 1,133,807 | 4% | - | - |
| **Total** | **93.00** | **100%** | **25,503,657** | **100%** | **2,741,350** | **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 | I&D | P&P | Prod Dev | Srvcs | SE |
|---|---|---|---|---|---|---|---|---|---|
| **1. Membership** | **22.42** | | | | | | | | |
| 1A. Member Services | **8.58** | 2.44 | - | 0.43 | - | - | 0.21 | 5.35 | 0.15 |
| 1B. Membership Products | **12.28** | 0.20 | 0.10 | 0.10 | 1.25 | - | 9.88 | 0.75 | - |
| 1C. Membership Reporting | **1.56** | 0.01 | 0.40 | 0.60 | - | - | 0.50 | 0.05 | - |
| | | | | | | | | | |
| **2. Registry** | **14.21** | | | | | | | | |
| 2A. Registration Services | **4.53** | - | 0.30 | 0.30 | - | - | 0.08 | 3.85 | - |
| 2B. Registry Products | **9.04** | - | 0.10 | - | 3.70 | - | 4.44 | 0.80 | - |
| 2C. Policy Development | **0.64** | - | 0.30 | 0.06 | - | - | 0.03 | 0.25 | - |
| | | | | | | | | | |
| **3. Development** | **26.08** | | | | | | | | |
| 3A. APNIC Conferences | **5.04** | 0.41 | 2.85 | 0.05 | 0.39 | - | 1.03 | 0.15 | 0.15 |
| 3B. Foundation Support | **1.58** | 0.37 | 0.20 | 0.35 | 0.06 | 0.45 | 0.05 | - | 0.10 |
| 3C. Community Engagement | **6.38** | 0.06 | 0.30 | 0.31 | 1.95 | - | 0.61 | 1.20 | 1.95 |
| 3D. Community Participation | **1.52** | - | 1.05 | - | 0.10 | 0.10 | 0.26 | - | - |
| 3E. APNIC Academy | **10.80** | 0.12 | - | - | 9.12 | - | 1.06 | 0.25 | 0.25 |
| 3F. Internet Infrastructure Support | **0.76** | - | - | - | 0.76 | - | - | - | - |
| | | | | | | | | | |
| **4. Information** | **6.54** | | | | | | | | |
| 4A. Information Products | **5.52** | - | 2.20 | - | 0.25 | - | 2.96 | 0.10 | - |
| 4B. Research and Analysis | **1.02** | - | - | 0.92 | - | - | 0.10 | - | - |
| | | | | | | | | | |
| **5. Capability** | **23.75** | | | | | | | | |
| 5A. Internal Technical Infrastructure | **6.20** | 4.12 | - | 0.05 | 1.20 | - | 0.58 | 0.05 | 0.25 |
| 5B. Finance and Business Services | **10.14** | 9.28 | - | - | - | - | 0.81 | - | - |
| 5C. Employee Experience | **4.65** | 0.86 | 0.20 | 0.20 | 0.21 | 2.45 | 0.37 | 0.20 | 0.15 |
| 5D. Governance | **2.77** | 0.14 | - | 2.62 | - | - | - | - | - |
| **Total** | **93.00** | **18.00** | **8.00** | **6.00** | **19.00** | **3.00** | **23.00** | **13.00** | **3.00** |

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

# APNIC-Funded Investments by Workstream

| Activity | FTE | % | Expenses (AUD) | % | CAPEX (AUD) | % | Investment |
|---|---|---|---|---|---|---|---|
| **1. Membership** | **1.30** | **33%** | **264,474** | **19%** | **-** | **0%** | |
| 1A. Member Services | - | | - | | - | | |
| 1B. Membership Products | 1.30 | 33% | 264,474 | 19% | - | | Online community platform |
| 1C. Membership Reporting | - | | - | | - | | |
| **2. Registry** | **-** | **0%** | **-** | **0%** | **-** | **0%** | |
| 2A. Registration Services | - | | - | | - | | |
| 2B. Registry Products | - | | - | | - | | |
| 2C. Policy Development | - | | - | | - | | |
| **3. Development** | **1.88** | **48%** | **684,922** | **49%** | **120,000** | **100%** | |
| 3A. APNIC Conferences | 0.3 | 8% | 113,403 | 8% | - | | Fellowships |
| 3B. Foundation Support | 1.58 | 41% | 571,518 | 41% | - | | Operational and administrative support |
| 3C. Community Engagement | - | | - | | - | | |
| 3D. Community Participation | - | | - | | - | | |
| 3E. APNIC Academy | - | | - | | - | | |
| 3F. Internet Infrastructure Support | - | | - | | - | | |
| **4. Information** | **-** | **0%** | **-** | **0%** | **-** | **0%** | |
| 4A. Information Products | - | | - | | - | | |
| 4B. Research and Analysis | - | | - | | - | | |
| **5. Capability** | **0.72** | **18%** | **370,377** | **30%** | **2,160,000** | **100%** | |
| 5A. Internal Technical Infrastructure | 0.2 | 5% | 279,611 | 20% | - | | Product platform development |
| 5B. Finance and Business Services | - | | - | | - | | |
| | - | | 60,000 | 4% | - | | Agile APNIC |
| 5C. Employee Experience | 0.25 | 6% | 57,289 | 4% | 160,000 | 7% | People management portal |
| | 0.27 | 7% | 33,477 | 2% | 2,000,000 | 93% | APNIC workspace remodelling |
| 5D. Governance | - | | - | | - | | |
| **Total** | **3.90** | **100%** | **1,379,722** | **100%** | **2,160,000** | **100%** | |

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

# Foundation-Funded Activities

## Investment

|  | Expenses (AUD) |
|---|---|
| 3E.2.  Instructor-led training | 931,000 |
| 3E.7.  Platform and curriculum development | 1,286,000 |
| 3E.8.  Community Trainers network | 636,000 |
| 3E.9.  Curriculum for non-technical audiences | 714,000 |
| 3F.3.  M-Root anycast instance deployment support | 1,100,000 |
| **Total** | **4,667,000** |

Some numbers presented in this table may not add up precisely to the totals provided due to rounding.

APNIC's 2021 Budget Submission provides more details on the 2021 APNIC Budget and is available with the minutes of the December 2020 EC meeting.

**Helpdesk**
Monday–Friday 09:00–21:00 (UTC +10)

**Postal address**
PO Box 3646
South Brisbane, QLD 4101,
Australia

**Email**
helpdesk@apnic.net

**Phone**
+61 7 3858 3188

**SIP**
helpdesk@voip.apnic.net

**Skype**
apnic-helpdesk

**www.apnic.net**

ABN 42 081 528 010

# APNIC 51 – Annual General Meeting – Agenda

*Draft v1.4

| Time (UTC +8) | Topic | Speaker |
|---|---|---|
| AGM (1): 11:00 – 12:00 | | |
| 11:00 | EC Chair welcome, introductions, and opening remarks | Gaurab Raj Upadhaya |
| 11:10 | APNIC EC Election Procedures | Craig Ng |
| 11:20 | Introduction of EC Election Nominees | Election Chair |
| 11:30 | APNIC Activity Report | Paul Wilson |
| 11:50 | Open mic | |
| Break: 12:00 – 12:15 | | |
| AGM (2): 12:15 – 13:15 | | |
| 12:15 | APNIC EC Treasurer Report | Kenny Huang |
| 12:25 | APNIC EC Report | Gaurab Raj Upadhaya |
| 12:40 | Policy SIG Report | Bertrand Cherrier |
| 12:45 | Open mic | |
| 12:55 | NIR SIG Report | Billy MH Cheon |
| 13:00 | Cooperation SIG Report | Joy Chan |
| 13:05 | Routing Security SIG Report | Aftab Siddiqui |
| 13:10 | APNIC EC Voting Reminder | Sunny Chendi |
| Lunch: 13:15 – 14:00 | | |
| AGM (3): 14:00 – 15:00 | | |
| 14:00 | APNIC EC Voting Close | Sunny Chendi |
| 14:05 | Joint SIGs Meeting Report (online election) | TBC |
| 14:10 | IPv6 Deployment session Report | Kenny Huang |
| 14:15 | APIX Report | TBC |
| 14:20 | Open mic | |
| 14:30 | APNIC EC Election Results | Election Chair |
| 14:40 | Vote of Thanks | Paul Wilson |
| 14:50 | APNIC EC Closing Remarks | Gaurab Raj Upadhaya |
| 15:00 | **END of AGM** | |

# Agenda Item 11
# APIDT update

# APIDT Update

APNIC EC meeting, February 2021
CONFIDENTIAL

# Sale Process/Status

- Stage 1, May/Jun 2020: 43/9
  - 8 million addresses – 8 x /12 blocks
  - Completed, sold to Alibaba, Singapore
  - Probity process complete
- Stage 2, Aug 2020: 43.128/10
  - 4 million addresses – 16 x /14 blocks
  - Completed, sold to Tencent, China
  - Probity process complete
- Stage 3, Sep 2020: 43.192/11
  - 2 million addresses – 32 x /16 blocks
  - Completed, only 2 blocks sold, to NEC and Line (JP)
  - Second transfer nearly complete

# Sale Process/Status cont

- Stage "3B", Jan 2021: remainder of 43.192/11
  - 30 x /16 blocks
  - Private sale(s) following completion of open tender process
  - Negotiation underway with prior (unsuccessful) bidder
  - Likely to conclude successfully, soon
- Sale Proceeds
  - Not yet announced
  - Final proceeds of USD $430M+
- Future activities?
  - 1 additional block (/16) has been offered for transfer to APIDT

# Status of Fund

- Independent Oversight
  - Investment Advisory Committee (IAC): Expert advice to Board
  - Review/recommend Investment policy, strategy, activity
- IAC Status
  - 4-6 members including Chair (appointed by Board)
  - First Member and Chair: Oki Matsumoto, JP (GS, Monex, HRW)
  - Candidate: Andrew Page, AU (Westpac, ex Credit Suisse)
  - Quarterly IAC meetings underway
  - Investments with Credit Suisse approved (underway)
- All APIDT establishment expenses now repaid
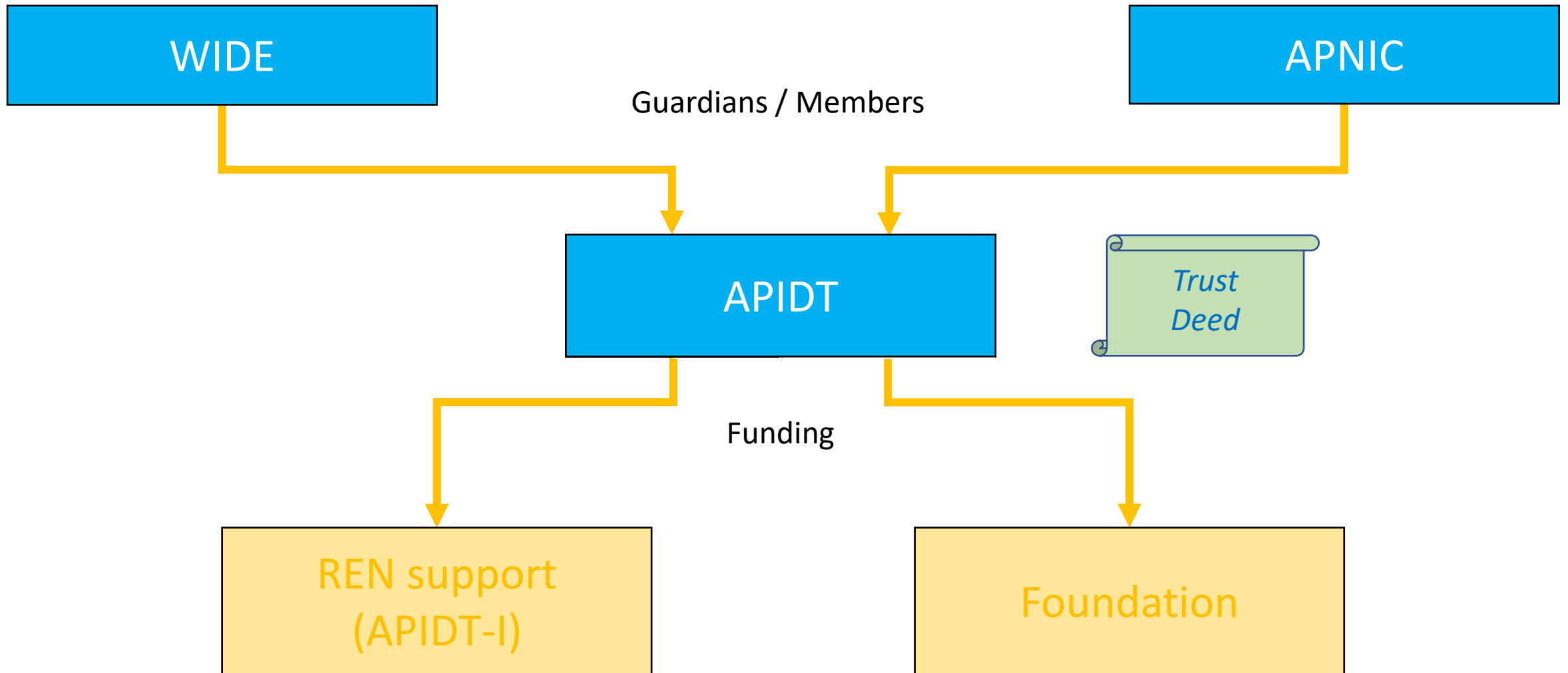
# APIDT Infrastructure

## Certificate of Registration of a Company

This is to certify that

**APIDT INFRASTRUCTURE PTY LTD**

**Australian Company Number 644 451 150**

is a registered company under the Corporations Act 2001 and is taken to be registered in Queensland.

The company  **is limited by shares.**

The company is a  **proprietary**  company.

The day of commencement of registration is **the eighteenth day of September 2020.**
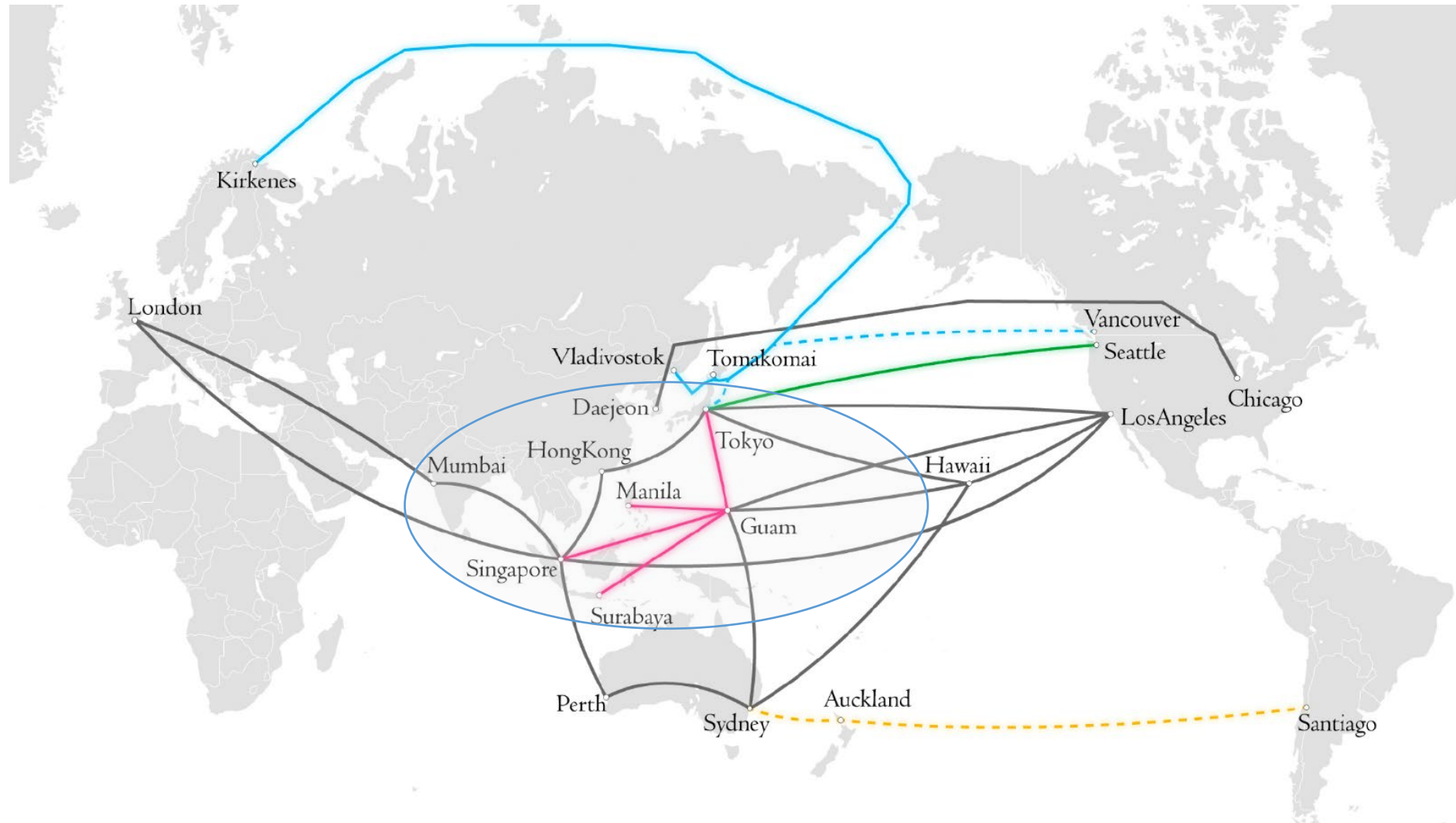
**ASIC**
Australian Securities & Investments Commission

# REN Cable Infrastructure

# ARENA-PAC

- Project of APIDT Infrastructure
  - Arterial Research and Education Network in Asia-PAC
- Group of circuits centred on GOREX in Guam
- GU-JP now established
  - 100G 15-year IRU (Indefeasible Right of Use) signed
- Next circuits
  - Next: GU-SG (Consortium led by Internet2, with AARNET, SINGAREN, APIDT)
  - Later: GU-PH, GU-ID
- APNIC contact: Che-Hoo Cheng
- Coming soon: SARENA-PAC (satellite/stratosphere)

# APNIC Foundation 2021

- Grant agreement signed in Feb 2021
    - 8 projects, total funding provision USD 8,038,300
    - APNIC involved in 5 projects (total budget AUD 4,667,000)

- "Overhead" funding model
    - Variable percentage of project funding
    - Total provision of USD 1,124,445 (additional)

- APNIC continues to host/support
    - Office and facilities, ~1.5 FTE of staff support
    - Reduced financial burden, as planned
    - Continued "underwriting" obligation (not budgeted by APNIC)

# Questions?

# Agenda Item 12
# APNIC Foundation update

# Agenda

Overview

Board and administration

Project update

New Funding

# Report Overview

1) Two candidates proposed for 7$^{th}$ and final Board position; 2021 Board meeting update

2) Projects continuing in COVID virtual environment

3) APIDT project proposals – First round update

# Board nomination and meeting

# Board position

❖ [Confidential information redacted]

# Next Board meeting

❖ [Confidential information redacted]

# Administration

Four new Foundation staff

1. Grants management lead (hired)

2. Monitoring and evaluation lead (hired)

3. Administration officer (transferred from APNIC)

4. Business and Finance manager (being hired)

❖ Total Foundation staff by June: 6 (plus four project coordinators)

❖ APIDT projects have funding for additional 8 project staff (APNIC and Foundation)

# Projects Update

# SWITCH SEA*

2020 - 2021

DFAT - Australia

Viet Nam, Thailand, Cambodia and The Philippines

USD 336,000

Leadership development for 100 women (25 in each economy)

- Local coordinators appointed
- Selection process started

*Supporting Women Leaders in Internet Research in South East Asia*

APNIC FOUNDATION

# Pacific Technical Training

2019 - 2021

DFAT - Australia

Fiji, Solomon Islands, Tonga and Vanuatu

USD 336,000 (additional funding declined)

**Moved to full virtual implementation**

# Myanmar University Network Training

Uncertain for 2021

KDDI Foundation (Japan)

Myanmar

To be determined

Full cost recovery for APNIC for two virtual workshops – routing and information security

# Funding Overview

# Funding totals

| Year | AUD | USD |
|------|----:|----:|
| 2017 | 407,000 | 309,328 |
| 2018 | 995,896 | 731,162 |
| 2019 | 329,783 | 402,207 |
| 2020 | 1,175,364 | 781,598 |
| **Grand Total** | **2,908,043** | **2,224,295** |

APNIC FOUNDATION

# Funding development - ongoing

- KDDI Foundation

- JICA

- Asia Development Bank (ADB)

- Asia Infrastructure and Investment Bank (AIIB)

- World Bank

# APIDT project proposals

❖ Final

❖ Project activities already commenced

❖ USD 1.1 million in Foundation overhead (Unlikely to use APNIC underwriting provision)

# The Trust project proposal 1

M-Root
Deployment

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $770,000
- **Potential impact:** Improved performance and resilience of domain name infrastructure in the Asia Pacific

# The Trust project proposal 2

## APNIC Academy

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $900,000
- **Potential impact:** Greatly increased ability to respond to requests for training from the APNIC community, especially in a virtual (COVID-ready) environment

**APNIC** FOUNDATION

# The Trust project proposal 3

Local Community Trainers Network

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $445,000
- **Potential impact:** Increased ability to provide readily available, operationally relevant, best practice technical training at the local level (and where needed in the local language)

**AP**NIC
FOUNDATION

# The Trust project proposal 4

ISIF Asia
(Infrastructure, inclusion and knowledge)

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $1,250,000
- **Potential impact:** Increased support for the research, design and implementation of solutions to strengthen Internet availability, affordability and accessibility

**APNIC** FOUNDATION

# The Trust project proposal 4

## ISIF Asia
### (IPv6)

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $1,000,000
- **Potential impact:** Increased deployment and use of IPv6 by network operators in the Asia Pacific

APNIC FOUNDATION

# The Trust project proposal 5

Training delivery

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $652,000
- **Potential impact:** Empower technical staff with a full understanding of technology and processes, so they can undertake tasks with more confidence and success

APNIC FOUNDATION

# The Trust project proposal 6

Curriculum development for non-technical audiences

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $500,000
- **Potential impact:** Developing curriculum to support training of non-technical (e.g. government) audiences to help them better understand the technical community

APNIC FOUNDATION

# The Trust project proposal 7

Asian Internet Interconnection Initiatives (AI3) and School of Internet Asia (SOI)

- **Donor:** The Trust
- **Economies:** Asia Pacific
- **Funding amount:** $2,276,300
- **Potential impact:** Establishing a wide area Internet education platform utilizing satellite technologies and developing leading edge technologies for the Internet

**AP**NIC
FOUNDATION

# The Trust project proposal 8

Sponsorships and contributions

- **Donor:** the Trust
- **Economies:** Asia Pacific
- **Funding amount:** $250,000
- **Potential impact:** Supporting community events and activities

APNIC FOUNDATION

# Trust funding in 2021 (USD)

[Confidential information redacted]

# Trust funding in 2021 (USD)

[Confidential information redacted]

# Funding process

[Confidential information redacted]

# Questions?

# Agenda Item 13
# EC election procedures

# APNIC Executive Council (EC) Election 2021

APNIC 51

# APNIC EC Election 2021

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

- Four vacant seats on the APNIC EC
  - Two-year term starting from being elected on 4 March 2021

- See: https://2021.apricot.net/elections/about/

# APNIC EC Election timeline
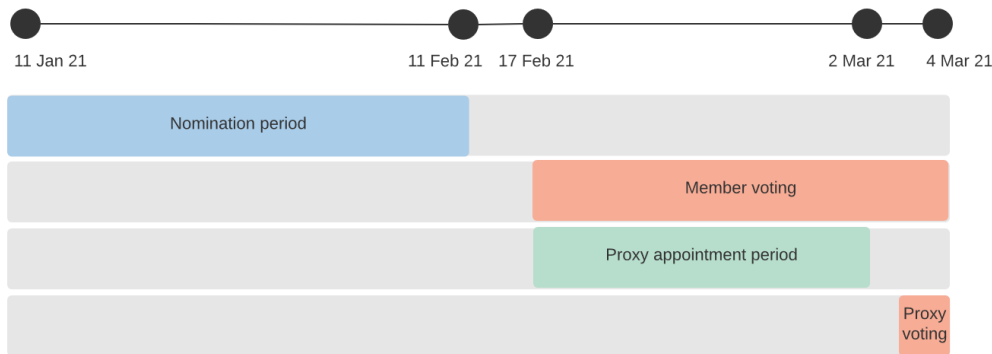


- Nominations open approximately 8 weeks before AGM day
- Nominations close approximately 2 weeks before AGM day
- Member online voting and proxy appointment open approximately 10 working days before AGM, Wednesday, 17 February 2021
- Proxy appointment closes 48 hours before the start of the AGM
- Proxy online voting opens at the start of the AGM and closes at 14:00 (UTC +8), Thursday, 4 March 2021
- Member online voting closes at 14:00 (UTC +8), Thursday, 4 March 2021

# 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 the APNIC 51 website

- Four-week nomination period
  - Started: Monday, 11 January 2021
  - Ended: 17:30 (UTC +10) Thursday, 11 February 2021

# 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
  - Started: Wednesday, 17 February 2021
  - Ends: 14:00 (UTC +8), Thursday, 4 March 2021

# 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
  - Started: Wednesday, 17 February 2021
  - Ended: 11:00 (UTC +8), Tuesday, 2 March 2021

- Proxy voting on AGM day using the BigPulse voting system
  - Starts: 11:00 (UTC +8), Thursday, 4 March 2021
  - Ends: 14:00 (UTC +8), Thursday, 4 March 2021

# Declaration of Result

- At the close of voting, the Election Officers will hold an online meeting with the Scrutineers, download the election results and email the results to the Election Chair in the presence of the Scrutineers

- The election results will be announced at 14:30 (UTC +8) today, 4 March 2021

- 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)



Poll Result

APNIC 49

**Report date:** Friday 21 February 2020 13:35 AEST

**APNIC Executive Council Election 2020**

As at Poll close: Friday 21 February 2020 13:30 AEST
Vote counting method: V1 FPTP (first-past-the-post)
Ranked by votes

| Rank | Candidate | Votes |
|---|---|---|
| 1 | Sumon Ahmed Sabir | 4135 |
| 2 | Kams Yeung | 3524 |
| 3 | Achie Atienza | 3067 |
| 4 | Pankaj Chaturvedi | 1323 |
| 5 | Jamalul Izza | 1139 |
| 6 | Swasthik Gopinathan | 156 |
| 7 | Paul Vinton | 154 |
| 8 | J. Maurice | 105 |
| | Total votes: | 13603 |

Results generated by BigPulse Online Voting

- Similar format as the EC election during APNIC 49

# Election Chair

- Lito Averia, President of PhCERT, as Election Chair
  - Appointed by the APNIC EC
  - Independent from any APNIC Member, or candidate
  - Has no interest in the election results

- Responsibilities:
  - Oversee the election process
  - Appoint the Election Scrutineers
  - Declare the election results
  - Resolve disputes

# Election Officers

- Andre Gelderblom and Connie Chan as Election Officers
  - Appointed by the APNIC EC
  - Selected from APNIC Secretariat staff

- Responsibilities
  - Administer the call for nominations
  - Manage the voting processes
  - Retrieve the online voting results

# Election Scrutineers

- Xxx and xxx

- Appointed by the Election Chair
  - Selected from staff of Internet organizations such as RIRs, ICANN, and ISOC who are present at the meeting
  - Do not vote and must be independent from any APNIC Member, or candidate

- Responsibilities
  - Observe the downloading of election results by the Election Officers
  - Notify the Election Chair in case any anomaly or issue is identified

# Notice of Dispute

- Any complaint regarding the conduct of the election must be lodged in writing with the Election Chair 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 by email to <u>election-chair@apnic.net</u>

- The Election Chair shall resolve the dispute at his discretion

# QUESTIONS?

# Agenda Item 17
# DG update

# 2021/2 RPKI Roadmap

March 2021 - Ver.1

# Audit / Process

- Review CPS document – Q1/2021
- Review On-call process - Q1/2021
- Review External Reporting Process/SLA – Q1/2021
- ISO27001 – Q3/2021

# Operations

- 24/7 NOC – In progress,  Q3/2021
- RPKI platform re-engineering (Centos7) – Q3/2021
- RPKI systems monitoring improvements – Q4/2021
- (Security) Vulnerability Scanning, Logging/SIEM, Source Code Scanning, and Outsourcing Vulnerability Report Handling – Q1-Q3/2021
- (Security) Ongoing internal security review - potential threat scenarios – (Ongoing)
- Review and Improve resilience & security to all infrastructure components (Ongoing)

# Operations (continued)

- HSM – End of Life replacement, and high availability architecture – Q3/2021-2022

- Publication improvements - RRDP & rsync distribution – Q1/2022

- Additional routing hardening/redundancy to the TA and Publication Points – Q1/2022

# System Architecture

- Internal code review and validation testing – start Q2 (pending resource)
- Validation Reconsidered – in progress, pending RIR / RP discussions
- RSC (previously RTA) – in progress (IETF)
- Signed TAL – in progress (IETF)
- rsync deprecation – (IETF)

# Measurements/Reporting

- Per sub-region/per economy metrics about RPKI deployment in the AP region – (Internet Directory) – 2021.

- RPKI Status Check / BGP Prefix Hijack Detection – (DASH) – 2nd half of 2021.

- ROA information and visualization – (NetOX) – Implementation is TBD.  Needs more exploration with Registry and Training teams, Q2/2021.

# Training and Comms

- Webinar "Demystifying AS0" (Q2/2021)
- 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. (2021)
- Opportunities to improve RPKI adoption (2021)
- More TA help and support to Members on RPKI – using TAP (ongoing)

# Unplanned Items for further discussion

- RFC compliance audit (software audit)
- SOC2, Type II audit
- Certificate Transparency and related processes
- (Security) Researchers to probe/test the security of the RPKI infrastructure possibly demonstrating the successful exploits
- Community feature / process requests
- 3rd party, external hosting of Publication service
- Discuss APNIC's longer term view to Self-Hosting, promote, support, etc.
- (BCP) technical compliance checklist / SLA for all CAs (Root or Intermediate CAs) in the RPKI chain (including RIRs/NIRs)
- Bring APNIC Labs measurements into Information Products
- Promoting more of the Academy RPKI related materials