APNIC

addressing the Internet in the Asia Pacific

2023 Annual Report

Contents

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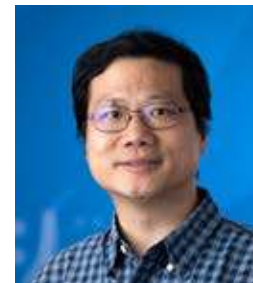
Kam Sze Yeung
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Paul Wilson, Ex-officio
Director General,
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WELCOME FROM THE EXECUTIVE COUNCIL CHAIR

Welcome to the 2023 APNIC Annual Report.

It was a big year for APNIC. There were many operational improvements and achievements during the year, and you can read about those in the following pages.

In addition, there were major governance reforms that strengthened the rights of Members and led to the membership changing the by-laws for the first time.

Governance structure improvements
The work leading to the changes began in 2021, when APNIC's legal staff were asked to identify possible improvements to the company's governance structure.

At that time, the role of Director General included serving as sole Director and trustee of the single share in APNIC Pty Ltd, bound by a legal trust agreement. This meant the Director General could not do anything with the share without the approval of the Executive Council (EC).

This structure served APNIC well for more than 25 years, but the EC recognized it could be misunderstood or misrepresented. This proved to be the case in the lead up to the 2023 EC Elections.

During 2022, various options were explored and at the December 2022 EC meeting, the EC resolved to change the structure of APNIC, with a further resolution in May 2023 finalizing the details.

The changes made in 2023 removed the burden on the Director General as sole Director and shareholder of APNIC Pty Ltd, and all members of the EC are now Directors of APNIC Pty Ltd. A corporate trustee was established to hold the single share in APNIC Pty Ltd, with the APNIC EC appointed as Directors and members of that company.

Giving Members power to reform APNIC's By-laws
APNIC's By-laws were drafted 30 years ago when the membership was much smaller. But with more than 9,000 APNIC Members it became virtually impossible for Members to update the by-laws as it required the agreement of two-thirds of all Members.

To address this, the Directors of APNIC Pty Ltd exercised its rarely-used ability to change the by-laws without the need for a Member vote to lower the threshold for by-law change by Members to two-thirds of votes cast.

In an historic moment at APNIC 56, Members voted overwhelmingly in favour of five resolutions to amend the by-laws to strengthen EC election processes and the eligibility criteria for EC nominees.

These governance changes have entrenched the power of APNIC Members more deeply in the fabric of the organization, and I would again like to thank the membership for supporting these very important reforms.

Building on firm foundations
Two other important initiatives were completed this year to help guide APNIC's future.

The first of these was the creation of a new four year strategy. Working with the Secretariat, the EC helped develop a new strategy to guide APNIC's activities until the end of 2027. I hope you find the Strategic Plan more accessible than before, and I encourage Members to read it.

The second was the result of work by the EC's Fee Review Sub-committee, established in May, to address the ongoing impacts of high inflation on APNIC's expenses.

WELCOME FROM THE EXECUTIVE COUNCIL CHAIR – CONTINUED

The committee's recommendations were adopted, with the announced changes giving Members clarity on their fees for years to come and providing the platform for APNIC to achieve a balanced budget over the long term.

Thanks for your support

It was a significant year, by any measure. The combination of stronger organizational governance structures, greater Member power on by-law reform, a new strategic course, and sustainable financial management sets APNIC on a positive path for the next four years.

On behalf of the EC and the membership, I'd like to thank all APNIC staff for their contributions in what was a challenging year. It is appreciated.

Most importantly, I would like to thank all Members for your ongoing interest and support of APNIC and its critical role in the operation of the Internet. Your participation in this community is vital, and is needed now more than ever.

Kenny Huang

WELCOME FROM THE DIRECTOR GENERAL

2023 was exciting and challenging, but also a positive and productive year for APNIC.

As Kenny detailed, it was a critical year for APNIC's governance, with important by-law changes that were well supported by Members. But right now, I'd like to share some thoughts on other achievements of the past 12 months.

Fiscal responsibility

Like all organizations in the region, APNIC's costs have risen quickly in the past two years. Inflation has been felt across the whole company – from staffing costs, technology and infrastructure, travel, and other supplier costs.

While the EC has announced fee increases to help offset those higher costs, the Secretariat is acutely aware that containing expenses is critical to balance APNIC's budget. All expenses came under extra scrutiny this year to minimize organizational costs while maintaining the high levels of service that Members expect.

I am pleased to say those efforts have resulted in a smaller 2023 operating deficit of AUD 590K, 46% less than the forecast AUD 1.1 million when the budget was first presented at APNIC 55.

Savings were achieved on professional fees and travel costs, in particular. Professional fees came in on budget, despite AUD 208K of unbudgeted expenditure on governance, compliance, and efforts to protect APNIC.

Travel costs were managed carefully, closing at AUD 1.67 million versus the budgeted amount of AUD 1.75 million (5% lower). This figure is already 30% lower than APNIC's pre-pandemic travel costs of AUD 2.39 million in 2019, despite airfares being 30-40% higher in 2023 compared to 2019.

A combination of careful travel planning and selective remote participation (32% of APNIC's engagements were undertaken remotely) led to excellent travel cost control without negatively impacting community outreach.

There was zero headcount growth in APNIC-funded roles in 2023.

The Secretariat and EC have committed to returning APNIC to a balanced budget by restraining year-on-year cost growth to 4% or less during the 2024-2027 Strategic Plan period. Further efficiencies will be identified during this time to ensure Members continue to receive value for money.

30 years of community

At APNIC 56, we had a very special opportunity to celebrate the 30th anniversary of APNIC, back where it all began, in Japan. APNIC started as a community experiment, and the support of the community is why it still endures today.

APNIC was very pleased to honour those who were involved in APNIC's creation 30 years ago – without those contributions, the Internet in the Asia Pacific could look very different today.

It's hard to know what the Internet and APNIC will be like in 30 years time, but your participation and input in the community will help shape that outcome. The commitment displayed by the community during the by-law reforms in 2023 was a great example of that.

A new Strategic Plan and structure

This Annual Report is the final one under the 2020-2023 Strategic Plan. A new strategy for 2024-2027 has been developed with the EC, and the old 'pillars' of activity (Membership, Registry, Development, Information and Capability) have

WELCOME FROM THE DIRECTOR GENERAL – CONTINUED

been replaced with four new pillars: Registry, Development, Engagement and Capability.

The new plan also sets out 12 'Most Important Goals' which are exactly as described—the goals APNIC believes are the most important to achieve over the next four years. The 2024 Activity Plan starts that process.

The EC and Secretariat believe the new strategic pillars are the best way to group APNIC's priorities and activities over the coming four years, and the Secretariat transitioned to a new operational staffing structure at the end of 2023 to mirror the plan.

I would encourage you to take a look at the new Strategic Plan if you've not had the opportunity to do so.

I would also like to thank all Members, and members of the APNIC community, for your support, cooperation and continuing contribution.

Everyone at APNIC is looking forward to another successful year in serving you.

Paul Wilson

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] [MISSION]

A global, open, stable, and secure Internet.

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.

2023 at a Glance

2023

Community Engagement 3C.5
444 engagements | **32%** remote participation

IPv6 growth 2A.1
v6
Members with IPv6 addresses
67.73%
Asia Pacific IPv6 capability
43.56%

Training 3E.2
Instructor-led training
188 courses
4,782 participants

Information products 4A.2
174 for a total of **276** alerts
DASH alerts subscribers

Security 3F.2
200 honeypot sensors
26 partners

Available resources 2A.1
0.5% IPv4 | **90.3%** IPv6 | **5%** ASNs

Conferences 3A.1
APRICOT 2023 APNIC 55
848 participants
740 in-person; 108 remote
5,119 YouTube views
941.68 YouTube hours viewed

56 APNIC 56
615 participants
504 in-person; 111 remote
3,996 YouTube views
610.89 YouTube hours viewed

Academy 3E.1
2,816 course completions
5,999 contact hours
21,064 labs launched
9,743 new accounts

Blog 4A.1
84,915 Views per month
23,609 Impactful plays over **24** podcasts

Financial Performance Summary

OPERATING EXPENSES BY OUTCOME AREA

MEMBERSHIP
- Actual — $ 5,736,885 — 17%
- Budget

REGISTRY
- Actual — $ 4,123,532 — 12%
- Budget

DEVELOPMENT
- Actual — $ 10,573,298 — 32%
- Budget

INFORMATION
- Actual — $ 2,867,214 — 9%
- Budget

CAPABILITY
- Actual — $ 10,164,247 — 30%
- Budget

x-axis: 0 2 4 6 8 10 12

$Millions (AUD)
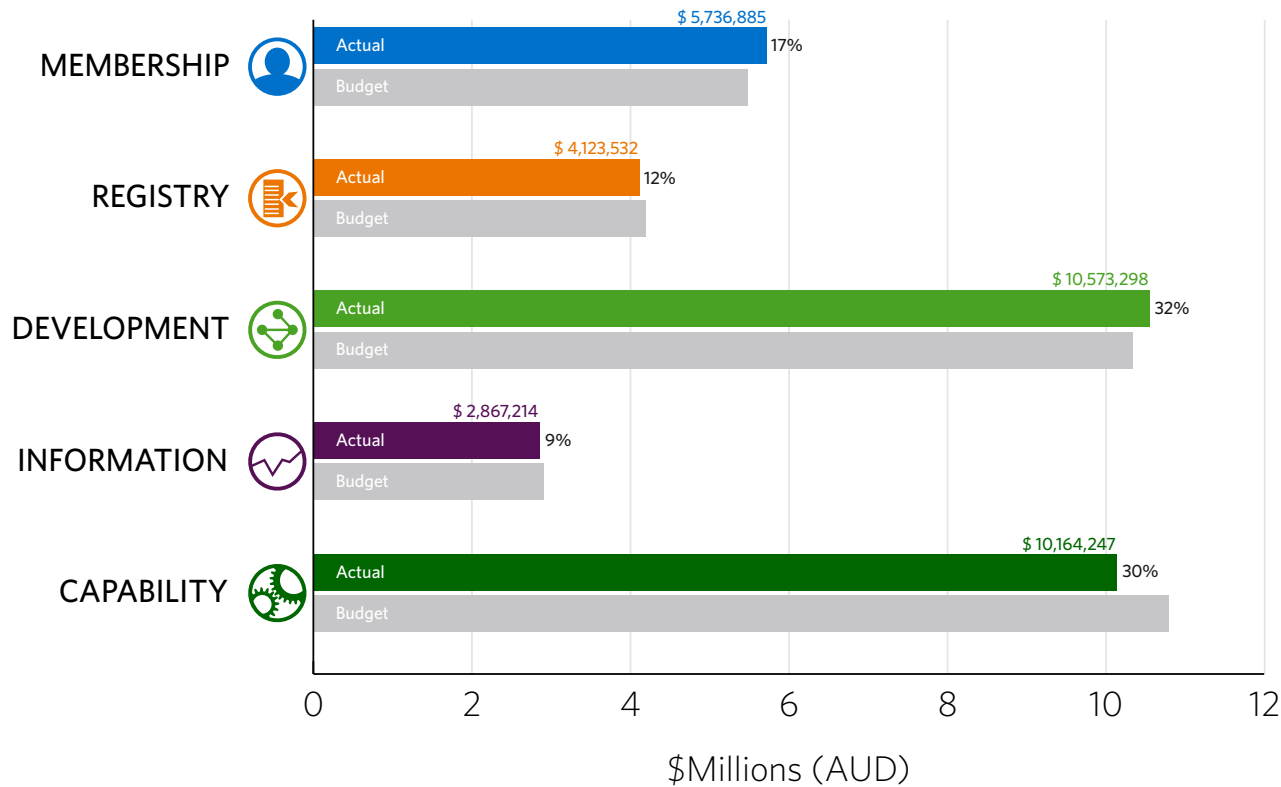
Note: Some numbers presented in this chart may not add up precisely due to rounding.

In addition to standard financial reporting, APNIC also reports activities and expenses under the five pillars and 18 workstreams detailed on page 10.

The chart on this page illustrates 2023's actual operating expenses compared to the budget in the 2023 Activity Plan. The percentage for each area indicates the proportion of the actual spend it represents.

For more details on APNIC's 2023 finances, please refer to pages 91-94 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

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 PY	22.42	19.88
② Expenses	5,441,868	4,685,680
③ CAPEX	-	7,935

THE ACTIVITIES
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.

SUCCESS INDICATORS
The status of Success indicators in the document's following pages is denoted by a coloured circle for at-a-glance reference on progress.

🟢 **Completed**   🟡 **At least 90% complete**   🔴 **Less than 90% complete**

① **PY:** A 'person year', representing the amount of work done by one-full-time staff member in one year. Most activities incur a staffing cost, expressed in PY, and in most cases, this comprises contributions from multiple employees. For example: a PY of 1.6 may be made up of four employees who each contribute 40% of their time for a period of one year (0.4 PY).

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

OBJECTIVES

- 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

WORKSTREAMS

1A. Member Services
1B. Membership Products
1C. Membership Reporting

1. MEMBERSHIP

	Budget	Actual
PY	22.74	23.06
Expenses	5,491,454	5,736,885
CAPEX	-	-

1A. Member Services

OPERATIONS

1A.1. Member service delivery

The Member Services team handled 12,487 tickets created by Member and community enquiries, 1,525 voice calls and 2,598 online chat sessions. In addition, more than 11,306 Member invoices were processed. The APNIC Helpdesk maintained its standing commitment to respond to Member queries within two business days.

Helpdesk service satisfaction remained high with 96% of respondents providing 'excellent' and 'above average' scores (588/612 responses). All negative feedback was resolved by Member Services staff.

There were 293 proactive Member outreach engagements across 40 economies, covering RPKI, resource transfers, technical assistance, upcoming events, and the historical resources transition project.

APNIC staff visited four National Internet Registries (NIRs) during 2023 to discuss registry operations (KRNIC, JPNIC, IRINN and CNNIC). Staff from two NIRs (KRNIC and VNNIC) visited APNIC to discuss future collaboration and improvements to their registry operations. APNIC also held quarterly meetings with all NIRs, with three online and one in-person at APNIC 56.

Fraud cases remained low, with 28 attempts to open APNIC accounts with fabricated documents detected.

1A. MEMBER SERVICES

	Budget	Actual
PY	12.78	13.21
Expenses	2,859,774	2,993,098
CAPEX	-	-

1A. **Member Services** - continued

1A.1. Member service delivery - continued

Historical resources transition

Registration was removed for 1,735,424 IP addresses (from 2,114 cases) and 666,112 IP addresses (181 cases) were recycled. A further 15,872 addresses routed without authority (nine cases) will be removed in 2024. Custodians of 333,568 IP addresses (120 cases) are yet to open an account with APNIC and will be processed in 2024.

HISTORICAL RESOURCE CASE OUTCOMES

Outcome	Routed		Unrouted		Total	
	Cases	IPv4	Cases	IPv4	Cases	IPv4
Registration removed / to be removed	22	31,488	2,101	1,719,808	2,123	1,751,296
Recycled	-	-	181	666,112	181	666,112
Claimed by holder	475	2,673,920	403	1,917,184	878	4,591,104
To be finalized	120	333,568	-	-	120	333,568
Total					**3,302**	**7,342,080**

1A. Member Services - continued

CASE OUTCOME SNAPSHOT

Legend:
- Yet to contact
- Prefixes being claimed by holder
- Prefixes retained by holder
- Not contactable
- No response
- Prefixes no longer needed
- Prefixes returned to APNIC
- Routed without authority
- Prefixes reclaimed under policy

X-axis: Mar 2022, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct 2023, Nov, Dec
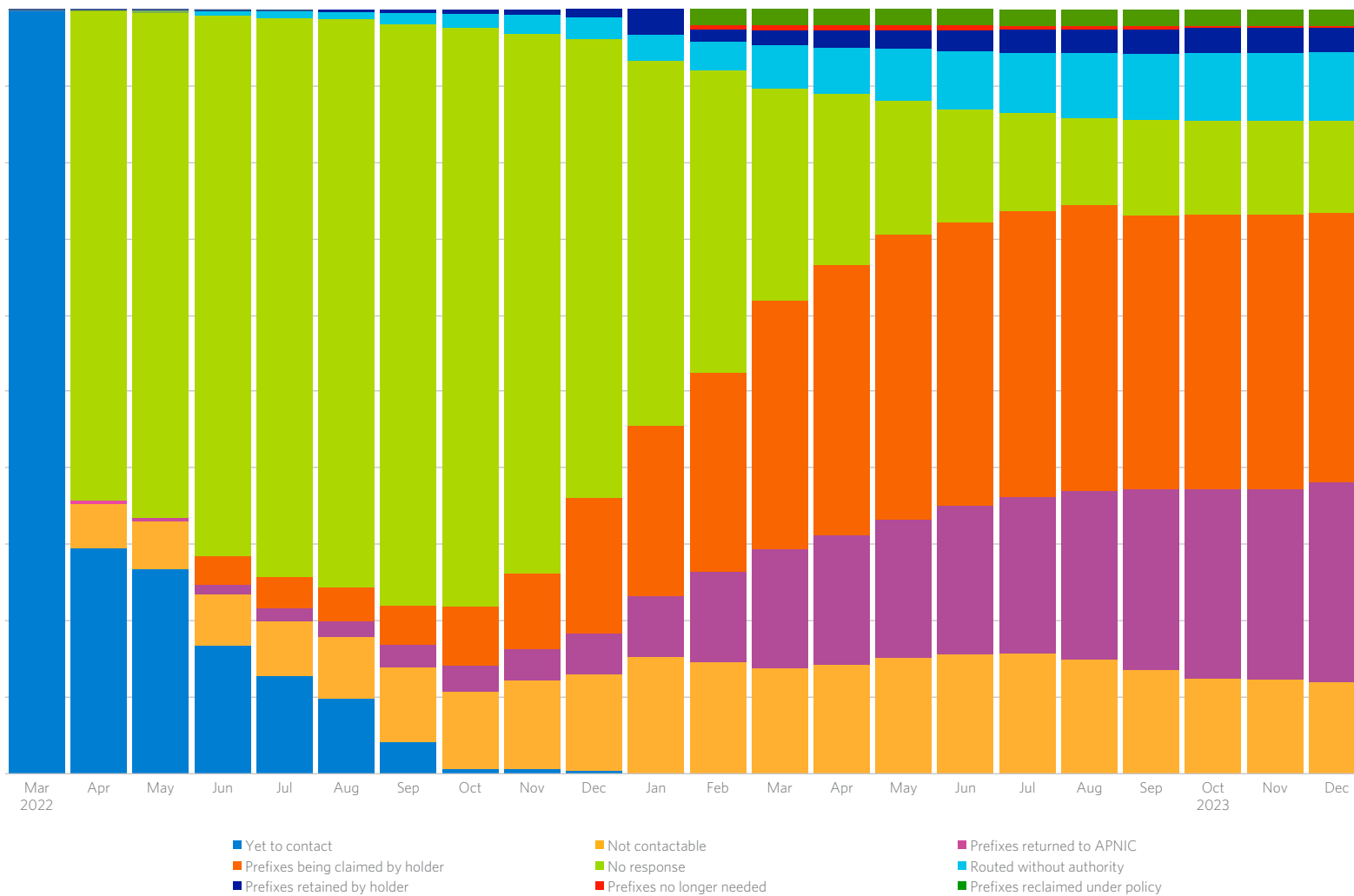
1A. **Member Services** - continued

1A.2. Member experience

Members and the community provided 3,856 feedback items, with 996 requiring action (all were resolved). Seventy-four percent of the feedback requiring action (734 items) was sourced from training events, leading to a comprehensive review of training course content.

FEEDBACK ITEMS
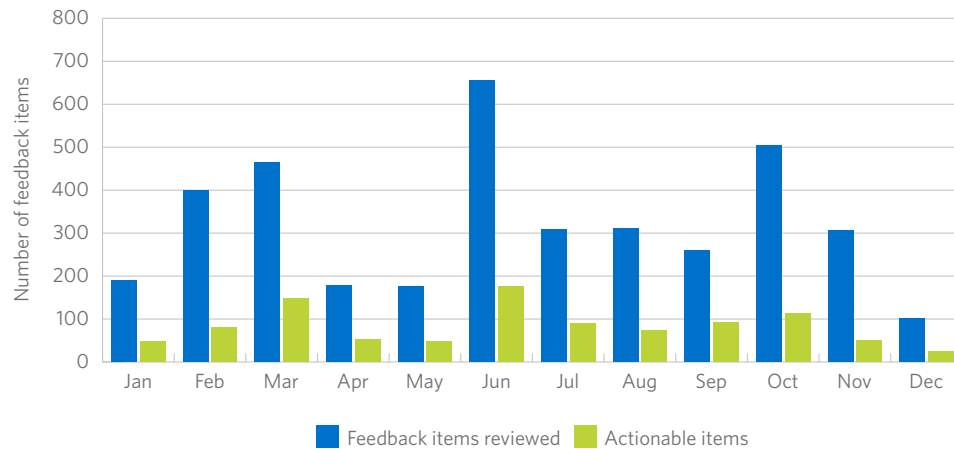
There were 391 user research engagements (user experience tests, surveys, and one-on-one interviews at APNIC 56 and SANOG 40) held with Members and the community to help improve website information architecture and search, payments and billing, MyAPNIC and the APNIC Academy.

1A. **Member Services** - continued

1A.3. Membership development

Sixty-nine membership development engagements were conducted at ITCN Expo 2023 (Pakistan), APNIC 55 (Philippines), Convergence India 2023 (India), CommunicAsia 2023 (Singapore), ISPAI Conclave (India), PCTA Convention 2023 (Philippines), Indonesia Internet Expo (Indonesia), and APNIC 56 (Japan).

A total of 904 new Members joined APNIC, including nine from Service Partners and 13 from Member referrals. The net new Members added (including closures and reactivations) was 676, including 248 Associate Members joining APNIC as a result of the historical resources transition project.

MEMBERSHIP GROWTH
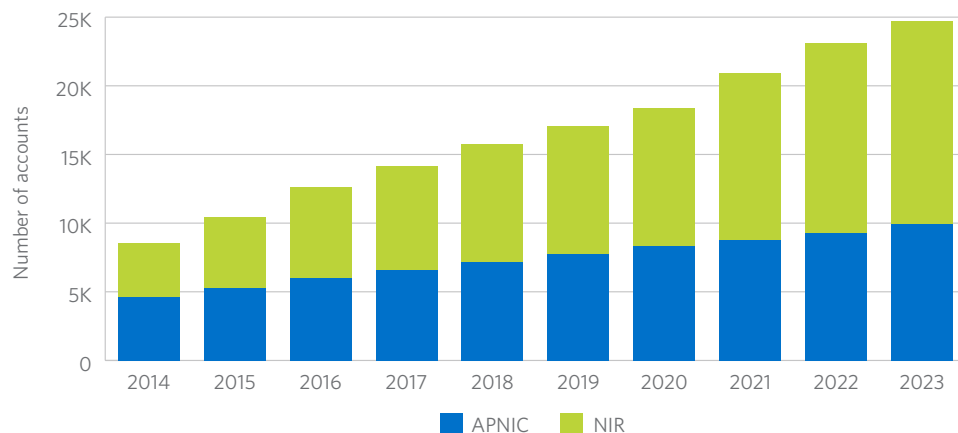
At the end of 2023, APNIC direct membership stood at 9,944, an increase of 7.3% on 2022. In addition, there were 14,715 NIR sub accounts, after growth of 6.6% in 2023.

Total combined membership was 24,659.

1A. **Member Services** - continued

MEMBERSHIP INDUSTRY TYPE

3,250 Internet Service Provider (ISP)

12 NREN/Research network
40 Domain name registry/Registrar
51 Hardware vendor
65 Internet Exchange Point (IXP)
105 Non-profit/NGO/Internet community
122 Infrastructure (transport/hospital)
141 Industrial (construction, mining, oil)
243 Media/Entertainment
294 Other
394 Government/Regulator/Municipality
453 Academic/Educational/Research
499 Software vendor
599 Banking/Financial
666 Enterprise/Manufacturing/Retail

2,110 Hosting/Data Centre

900 Telecommunications/Mobile operator

Total
Members
9,944

1A. **Member Services** - continued

SUCCESS INDICATORS – 1A

Targets	Results	Status
Maintain Helpdesk SLA of two business day response to enquiries (>99.90%).	99.99% SLA	🟢
Maintain service satisfaction ratings of at least 93% "excellent and above average" feedback.	96%	🟢
Achieve proactive Member service engagement in a minimum of 40 economies.	40 economies	🟢
Membership and resource status of final 1,587 historical resource holders resolved.	1,467 out of 1,587 resolved	🟠
100% of improvement suggestions are assessed and resolved.	100% resolved	🟢
Increase total user research to 390 engagements (+10% on 2022).	391	🟢
Increase face-to-face user research to 48 engagements (+30% on 2022).	56	🟢
At least eight membership development activities in target economies.	8 out of 8	🟢
Increase total number of net new Members to 530 (+6% on 2022).	676	🟢

1B. Membership Products

OPERATIONS

1B.1. Membership product management

MyAPNIC scored 4 out of 5 in a Customer Effort Score (CES) survey and maintained availability at 99.99%.

INVESTMENTS

1B.2. Membership product development

Roadmap goals completed
- Improve internal API authentication
  - Improvements to 20 application services were deployed.
- Additional widgets in MyAPNIC dashboard
  - A DASH widget for displaying routing status and suspicious traffic summaries was developed.
- Re-architect workflow code on end-of-life OS servers
  - Completed.
- Automate and improve account closure processes
  - Completed.

Roadmap goals in progress
- Improve Member contact management in MyAPNIC
  - Completed an update to user management tools and improvements to the APNIC Registry Management System (ARMS) contact management platform.
  - Mandatory two-factor authentication (2FA) rollout was deferred to 2024.

🔗 **roadmap.apnic.net**

1B. MEMBERSHIP PRODUCTS

	Budget	Actual
PY	8.27	8.36
Expenses	1,656,941	1,631,971
CAPEX	-	-

1B. **Membership Products** – continued

Additional goals completed
- APNIC fee calculators
  - Fee calculators were updated for future years.
- Membership renewal workflow
  - Improvements to the membership renewal workflow were documented.
- Orbit platform adjustments
  - Post editor improvements were implemented.
- Organization name change process improvements
  - Completed.
- System updates for the historical resources transition project
  - Billing improvements completed for accounts holding both historical and current resources, and fee waiver extension added.
- Tax compliance updates
  - Systems updated to accommodate Singapore GST and Cambodian VAT.
- Election and voting improvements
  - Implemented new voting process for the APNIC By-laws Reforms, and system updates for SIG and IANA RC elections.

Additional goals in progress
- None

Goals deferred
- None

1B. **Membership Products** – continued

SUCCESS MEASURES – 1B

Targets	Results	Status
Maintain MyAPNIC availability of at least 99.99%.	99.99%	🟢
For MyAPNIC, achieve a Customer Effort Score (CES) of at least 4 out of 5.	4 out of 5	🟢
Achieve all 2023 goals, according to the Membership Products Roadmap	11 completed 1 in progress	🟢

1C. Membership Reporting

OPERATIONS

1C.1. Planning and reporting

The 2023 Activity Plan and Budget and 2022 Annual Report were presented at the 2023 Annual General Meeting in March. The 2024-2027 Strategic Plan was published in December.

All EC minutes were published in line with agreed deadlines.

A public webpage tracking progress against 2023 activities was published and updated throughout the year.

1C. MEMBERSHIP REPORTING

	Budget	Actual
PY	1.69	1.49
Expenses	974,739	1,111,816
CAPEX	-	-

1C. Membership Reporting – continued

SUCCESS MEASURES – 1C

Targets	Results	Status
Publish required reports on the day of the APNIC Member Meetings	AGM and AMM reports published	🟢
Publish EC Minutes within two months of each EC meeting	Achieved	🟢

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

2. REGISTRY

	Budget	Actual
PY	15.08	15.05
Expenses	4,202,565	4,123,532
CAPEX	-	-

2A. Registration Services

OPERATIONS

2A.1. Resource registration and transfer services

APNIC processed 1,353 IPv6 delegations, 1,927 IPv4 delegations, 771 ASN assignments, 749 IPv4 market transfers (472 within the Asia Pacific region and 181 between APNIC and other RIR regions), and 96 Merger and Acquisition IPv4 transfers.

The proportion of APNIC Members that hold IPv6 resources is 67.73%, a decrease from 2022's figure of 69.47%. This is due to 248 new Associate Members holding only historical address space (IPv4).

At the end of 2023, APNIC had allocated 99.5% of its total IPv4 number resource pool, 9.7% of its IPv6 pool and 92.2% of its ASN pool. APNIC received an additional 2,048 ASNs from IANA in May 2023.

The status of APNIC's Internet number resource pools at the end of 2023 is below.

	Total at 1 Jan 2023	From IANA	Transfers in	Transfers out	Total at 31 Dec 2023	Total delegated	Total reserved	Total available
IPv4 (/24s)	3,481,801	0	1,478	3,406	3,479,882	3,461,518	8,606	9,758
IPv6 (/32s)	1,067,008	0	0	0	1,067,008	103,543	109,490	853,975
ASNs	29,334	2,048	0	4	31,378	28,915	0	2,463

2A. REGISTRATION SERVICES

	Budget	Actual
PY	4.89	5.02
Expenses	773,260	782,836
CAPEX	-	-

2A. Registration Services – continued

IPv4 DELEGATIONS

Legend: South East Asia, East Asia, Oceania, South Asia, Out of region

IPv6 DELEGATIONS

Legend: South East Asia, East Asia, Oceania, South Asia, Out of region

ASN ASSIGNMENTS

Legend: South East Asia, East Asia, Oceania, South Asia, Out of region

IPv4 MARKET TRANSFERS

Legend: Outgoing, Incoming
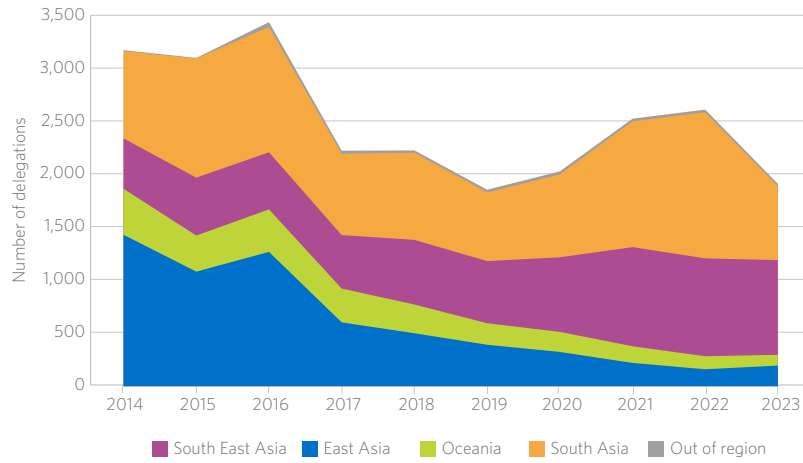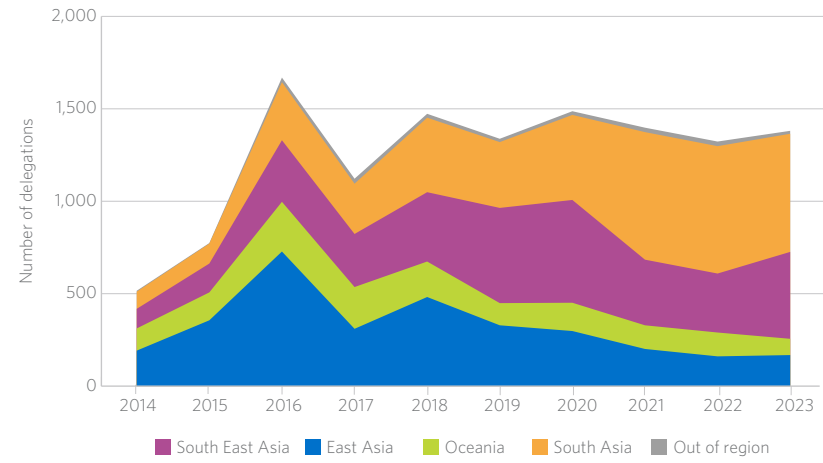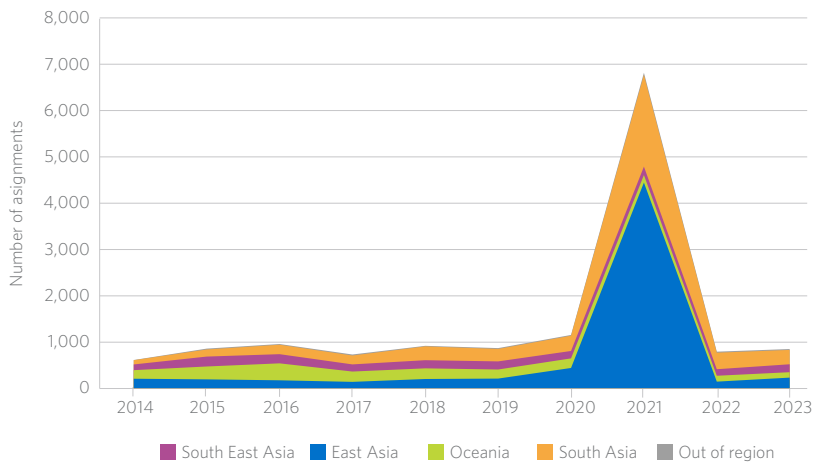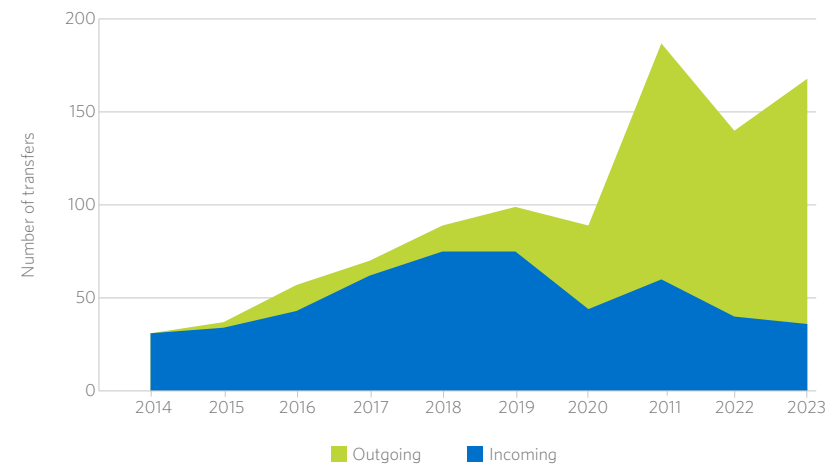
Note: Large requests from networks in China and India account for the significant rise in ASN assignments in 2021.

2A. Registration Services – continued

M&A AND HISTORICAL TRANSFERS

Legend:
- Historical transfer size (/24s)
- M&A transfer size (/24s)
- M&A transfer count
- Historical transfer count

INTER-RIR IPv4 TRANSFERS

Legend:
- Inter-RIR market incoming size (/24s)
- Inter-RIR market outgoing size (/24s)
- Inter-RIR market incoming count
- Inter-RIR market outgoing count

MARKET TRANSFERS WITHIN APNIC

Legend:
- Within APNIC market transfer size
- Within APNIC market transfer count
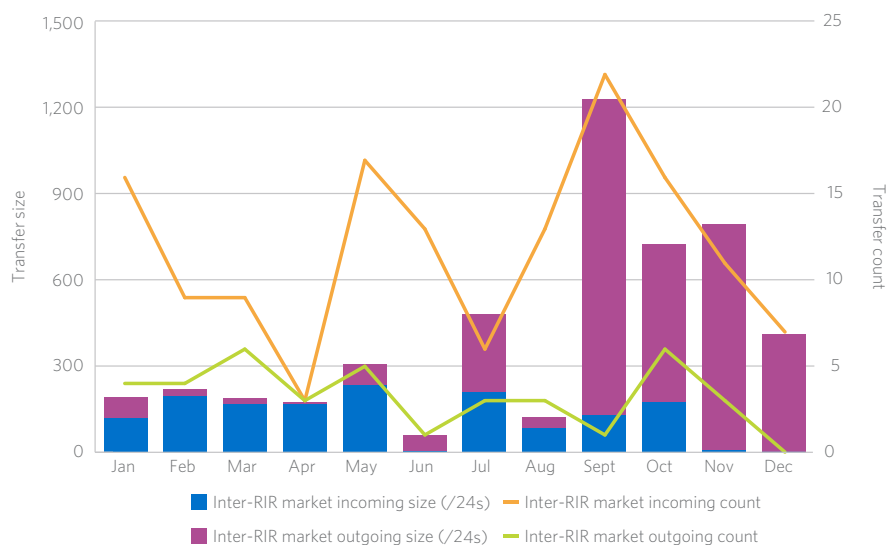
● Large M&A transfers in New Zealand, India, Malaysia and Australia, account for the large spikes in M&A activity during the year.

● Large outgoing inter-RIR transfers from Japan, Australia and New Zealand to the RIPE and ARIN regions occurred during the final four months of the year.

● A large transfer occurred between JPNIC members in October.

2A. Registration Services – continued

AVAILABLE IPv4 ADDRESS SPACE
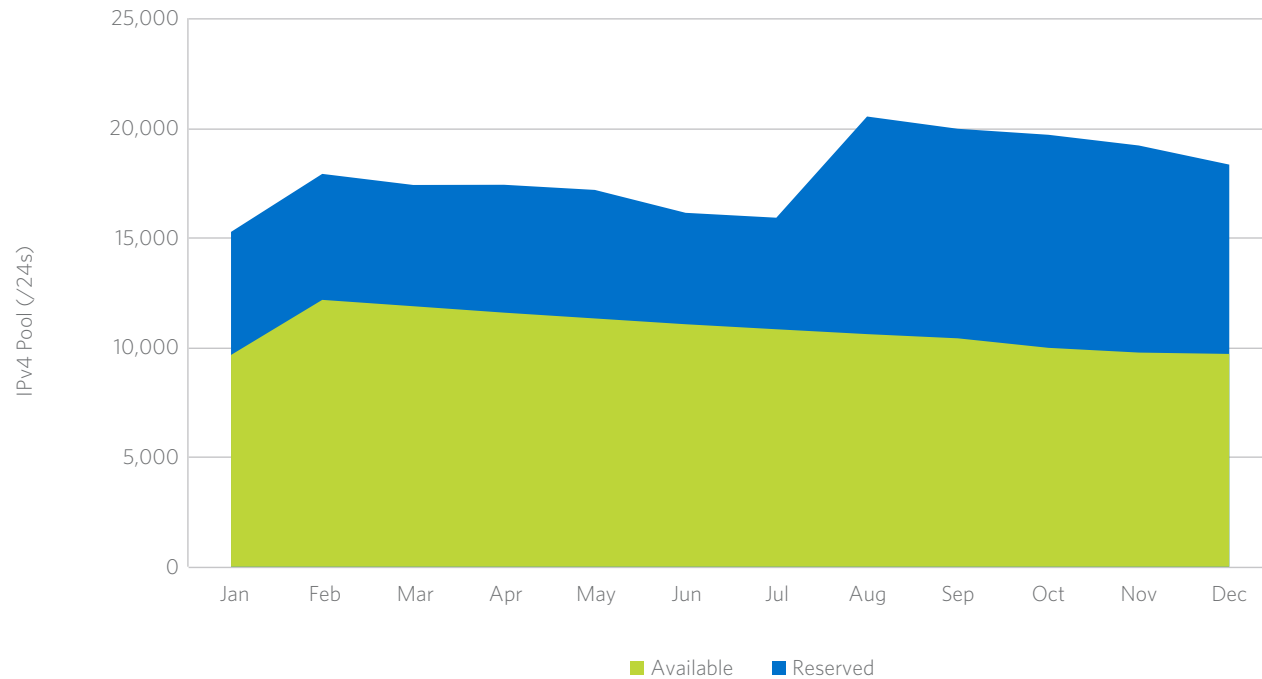
Reclaimed addresses are moved to APNIC's reserved pool for checking to ensure any problems routing the space are minimized.

Reserved address space with no issues affecting routability is recycled into the Available pool for distribution.

APNIC's available and reserved IPv4 space increased due to the historical resources transition project, which reclaimed 1,735,424 IP addresses (6,779 /24s) and recycled 666,112 IP addresses (2,602 /24s).

2A. **Registration Services** – continued

2A.2. Maintain correct and current registry data

Members with invalid Incident Response Team (IRT) objects were identified and assisted with completing their validation. 80.3% of Members validated their IRT object (8,328 of 10,371 accounts).

All APNIC resources were accounted for in the NRO extended delegation statistics.

RESOURCE REGISTRATION COMPLETENESS

Type of Record	Number of records	% of total records
Have a parent block with organization object and IRT	41,410	97.2%
Have a parent block with organization object and validated IRT	32,848	77.1%
Have a parent block with only organization object	3	0.007%
Have a parent block with only IRT	612	1.4%
Have a parent block with no organization object and no IRT	557	1.3%

2A. Registration Services – continued

SUCCESS INDICATORS – 2A

Targets	Results	Status
Maintain Helpdesk SLA of two business day response to enquiries (99.90%).	100%	🟢
Delegation of resources in line with projected community demand: • **IPv4: 200 delegations per month** • **IPv6: 100 delegations per month** • **ASNs: 70 delegations per month**	IPv4: 160/mth IPv6: 115/mth ASNs: 70/mth	🟠
New metrics for registry established.	Achieved	🟢

2B. Registry Products

OPERATIONS

2B.1. Internet number registry management ⟳

Migration of ARMS from a legacy operating system to Red Hat Enterprise Linux 9 (RHEL9) continued in 2023.

ARMS maintained availability of 99.99%.

2B.2. Registry product management ⟳

All core registry products (whois, RDAP, RPKI, RDNS, IRR) maintained availability of 99.99%.

Systems changes required to implement prop-150: ROA/whois object with Private, Reserved and Unallocated (reserved/available) Origin ASN and prop-151: Restricting non-hierarchical AS-SET were completed.

Additional reversal operations were added to the core registry to properly amend the event history and account for mistakes.

Work also continued on understanding and documenting RPKI failure modes, as well as writing associated mitigation/recovery procedures.

2B. REGISTRY PRODUCTS

	Budget	Actual
PY	9.50	9.26
Expenses	2,672,833	2,720,269
CAPEX	-	-

2B. Registry Products – continued

INVESTMENTS

2B.3. Registry product development

Roadmap goals completed
- Pre-validate all RPKI changes to avoid errors
  - Completed.
- Improve ASN delegation identity in whois and MyAPNIC
  - Completed.

Roadmap goals in progress
- Ability to create and validate RSC objects using MyAPNIC
  - Planning and documentation on hold due to policy implementation work and RHEL9 migration.
- Update authorization mechanisms for whois
  - Developed with final testing pending.

Additional goals completed
- **prop-150** implementation
  - Completed.
- **prop-151** implementation
  - Completed.
- ROA publication speed improvements
  - ROA publication time reduced from an average of ~15 minutes to ~3 minutes.
- Geofeed attribute added to whois objects
  - The 'geofeed' attribute was added to the whois inetnum and inet6num objects.
- Core registry operation updates
  - Implemented additional reversal operations to properly amend the event history and account for mistakes.

2B. Registry Products – continued

INVESTMENTS

Additional goals in progress

- RPKI resilience
  - Pending final testing of performance improvements and the reinitialization process.
- RDAP re-architecture
  - Scheduled for production release in 2024.
- IRRd deployment
  - Scheduled for production release in 2024.
- Six IETF drafts
  - RDAP RIR Search.
  - An RDAP Extension for Geofeed Data.
  - RDAP Simple Contact.
  - RDAP Extensions.
  - On the use of the CMS signing-time attribute in RPKI Signed Objects.
  - RPKI Signed Object for Trust Anchor Key.

Goals deferred

- NIR ASN direct assignments
  - Scheduled for completion in 2024.

2B. Registry Products – continued

2B.4. Registry re-architecture

Registry API development continued and is scheduled for beta production release by APRICOT 2024.

Reimplementation of core internal registry features was deferred to 2024 due to policy implementation work and the RHEL9 migration.

2B.5. Five-9s availability for highly critical services

Community consultation was conducted in June and July to help determine the demand for further investments in critical service availability. An online feedback form attracted 209 responses from 32 economies, with 11 organizations interviewed for qualitative input.

The results of the consultation were published on the APNIC Blog. Following the consultation, the EC endorsed APNIC's availability benchmark for critical services to 99.99%.

APNIC's cloud and interconnection strategy was also published.

2B. Registry Products – continued

SUCCESS INDICATORS – 2B

Targets	Results	Status
Maintain APNIC Registry Management System (ARMS) availability of at least 99.99%.	99.99%	🟢
Maintain availability of registry services: • Whois: 99.99% • RDAP: 99.99% • RPKI: 99.99% • RDNS: 99.99% • IRR 99.99%	99.99%	🟢
Achieve all 2023 goals, according to the **Registry Products Roadmap.**	7 completed 6 in progress 1 to start	🟢
Complete the development of a Registry API.	Scheduled for 2024	🔴
Complete the reimplementation of the policy constraint logic and related features in the core internal registry.	Deferred to 2024	🔴
Complete all preparatory activities by the end of Q2 (5x9s).	Completed	🟢

2C. Policy Development

OPERATIONS

2C.1. Policy development ↻

The APNIC Policy SIG considered the following proposals in 2023.

Proposal	Result
prop-147: Historical resources management	Reached consensus and endorsed by the EC for adoption. Implemented.
prop-148: Leasing of resources is not acceptable	Did not reach consensus and returned to the mailing list. Proposal was subsequently abandoned.
prop-149: Change of maximum delegation for less than /21 total IPv4 holdings	Returned to the mailing list as version discussed at the OPM was not the same version submitted to the SIG. Proposal was subsequently abandoned.
prop-150: ROA/whois object with private, reserved and unallocated (reserved/available) origin ASN	Reached consensus and endorsed by the EC for adoption. Implemented.

2C. POLICY DEVELOPMENT

	Budget	Actual
PY	0.69	0.77
Expenses	756,472	620,427
CAPEX	-	-

2C. Policy Development – continued

Proposal	Result
prop-151: Restricting non-hierarchical AS-SET	Reached consensus and endorsed by the EC for adoption. Implemented.
prop-152: Reduce the delegation from /23 to /24	Did not reach consensus and returned to the mailing list.
prop-153: Proposed changed to PDP	Did not reach consensus and returned to the mailing list.
prop-154: Resizing of IPv4 assignment for the IXPs	Did not reach consensus and returned to the mailing list.
prop-155: IPv6 PI assignment for Associate Members	Reached consensus and endorsed by the EC for adoption.

2C.2. Policy implementation

Prop-147: Historical resources management, prop-150: ROA/whois object with private, reserved and unallocated (reserved/available) origin ASN, and prop-151: Restricting non-hierarchical AS-SET were implemented.

2C.3. Policy analysis

Impact assessments for the nine policy proposals discussed at APNIC 55 and 56 were published on the Policy SIG mailing list.

2C. **Policy Development** – continued

SUCCESS INDICATORS – 2C

Targets	Results	Status
Achieve SIG Chair Support satisfaction of at least 6 out of 7.	6.8/7	●
Met 100% of implementation timelines.	3 out of 3 implemented	●
Publish a policy proposals analysis before each Open Policy Meeting (OPM).	2 out of 2 published	●

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. Internet Infrastructure Support

3. DEVELOPMENT

	Budget	Actual
PY	37.42	34.89
Expenses	10,359,105	10,573,298
CAPEX	58,500	36,337

3A. APNIC Conferences

OPERATIONS

3A.1. APNIC conferences

APRICOT 2023 (incorporating APNIC 55) was held in Manila, Philippines, from 20 February to 2 March 2023. The event welcomed 848 attendees (740 in-person and 108 online), with an additional 5,119 views on YouTube.

APNIC 56 was held in Kyoto, Japan, from 7 to 14 September 2023, attracting 615 participants (504 in-person and 111 online). There were an additional 3,966 views on YouTube.

APNIC celebrated its 30th anniversary at the event, with themed social events, a panel discussion featuring important APNIC contributors, and a special lunch session to honour founding contributors from Japan.

Several community meetings were held at the conferences from partner organizations including DotAsia, APIX, APStar, APRALO, ISOC MANRS and the ASO AC.

Both conferences were well-received, achieving Net Promoter Scores (NPS) of 80 and 76 respectively.

conference.apnic.net

3A. APNIC CONFERENCES

	Budget	Actual
PY	4.35	5.86
Expenses	1,789,436	1,747,402
CAPEX	33,500	23,154

3A. APNIC Conferences – continued

	APRICOT 2023/ APNIC 55	APNIC 56
In-person participants	740	504
Total number of remote participants (Zoom)	108	111
Economies represented	54	47
YouTube views	5,119	3,996
YouTube hours viewed	941.68	610.89
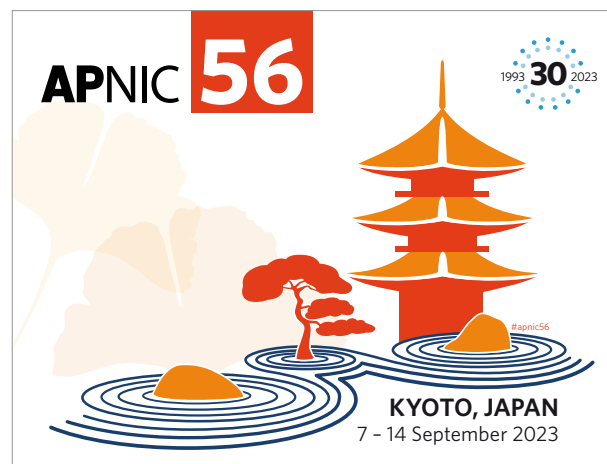
3A. APNIC Conferences – continued

SUCCESS INDICATORS – 3A

Targets	Results	Status
Achieve total attendance of 1,200 (face-to-face and online) across two conferences.	1,463	🟢
Achieve Net Promoter Score of at least 50 at each conference.	NPS 80 and 76	🟢

3B. Foundation Support

INVESTMENTS

3B.1. Foundation operations support

Secretariat staff (from Finance, People and Productivity and Infrastructure and Development) continued to provide support to the Foundation on an as-needed basis, with all direct costs recovered.

APNIC continued to provide hosting and technical support for administrative, project and financial platforms used by the Foundation.

3B.2. Foundation projects support

APNIC provided support to projects delivered by the APNIC Foundation (in addition to APNIC activities funded by the Foundation) including:

- The Switch! SEA, Afghan and SOI Asia projects, including access to the APNIC Academy platform.
- The establishment of a NOG in Afghanistan as a result of Afghan project engagement.
- A new Foundation website, including integration of the ISIF Asia website.

🔗 **apnic.foundation**

3B. FOUNDATION SUPPORT

	Budget	Actual
PY	1.40	0.67
Expenses	-	-
CAPEX	-	-

3B. Foundation Support – continued

SUCCESS INDICATORS – 3B

Targets	Results	Status
Achieve a satisfaction rating of at least 6/7 from the APNIC Foundation delivery team.	6/7	🟢

3C. Community Engagement

OPERATIONS

3C.1. Technical community support

APNIC supported and participated in 41 technical community events, including 25 Network Operator Group (NOG) events during 2023, providing sponsorship, speakers, training, and technical support (see the Appendix for the full list of events and economies).

Staff also participated on the organizing/program committees for 12 events, including APRICOT 2023, APAN 55, SANOG 39, btNOG 10, PhNOG 2023, APAN 56, mnNOG 5, SANOG 40, KHNOG 5, HKNOG 12.0, LANOG 1.0, and bdNOG 17. Support was also provided to the inaugural KRNOG in April and AFNOG in December.

3C.2. Security community support

APNIC supported and participated in 22 security community events, including providing sponsorship, speakers, training, and technical support (see the Appendix for the full list of events and economies). Several engagements were related to the APNIC Community Honeynet Project and training for Law Enforcement Agencies (LEAs).

Support was provided to BtCIRT, KrCERT/CC, CERT NZ, CERT Vanuatu, Fiji Critical Infrastructure Sector CERT and MNCERT/CC, and the mentoring program at the FIRST Annual Conference.

3C. COMMUNITY ENGAGEMENT

	Budget	Actual
PY	6.24	7.16
Expenses	2,243,177	2,235,260
CAPEX	-	-

3C. Community Engagement – continued

3C.3. Internet organization cooperation

APNIC participated in 14 NRO EC and Coordination Group meetings during the year, including one cross-CG NRO meeting, attended six RIR meetings, and participated in AIS 2023 to show support to the AFRINIC community.

Staff participated in all ICANN and IETF meetings, with technical staff co-authoring drafts in the IETF SIDROPS (RPKI) and REGEXT (RDAP) working groups. Staff also participated in 10 Internet Technical Collaboration Group (ITCG) calls and three I* coordination calls, and presented an update on APNIC's activities at APTLD 84.

3C.4. Internet governance participation

APNIC co-organized a town hall session on Internet fragmentation and the UN Global Digital Compact and supported a networking session for CSIRT practitioners at the Internet Governance Forum (IGF) 2023.

Staff also participated in 11 meetings related to the IGF, including the Multistakeholder Advisory Group (MAG), the IGF Support Association Executive Committee (IGFSA), and IGFSA General Assembly.

APNIC co-organized a session on Internet fragmentation and presented and moderated other sessions at the Asia Pacific Regional Internet Governance Forum (APrIGF) 2023, including the yIGF and Parliamentary Track. Staff also took part in 27 Multistakeholder Steering Group (MSG) meetings, 16 Program Committee meetings, and one APrIGF site visit with the local host.

Eleven sub-regional and economy-level IGF events and five Schools of Internet Governance were also supported (see the Appendix for the full list of events and economies).

3C. **Community Engagement** – continued

3C.5. Government engagement

APNIC met with government representatives from Australia, Bhutan, Cambodia, China, Japan, Pakistan, Papua New Guinea and Singapore on topics including IPv6, cybersecurity, capacity building initiatives, Internet governance and Internet fragmentation.

Four contributions were drafted and signed to the Global Digital Compact (GDC) open consultations. APNIC also applied for 'consultative status' to the UN ECOSOC to allow APNIC to observe and participate in UN processes (if successful).

Staff participated at the ITU WSIS Forum 2023 and the ITU Asia and Pacific Regional Development Forum 2023. Technical training was provided to seven APT member states, with staff participating in the first APT Preparatory Group meeting for WTSA-24 and the APT Symposium on Inclusive Connectivity.

Training was also provded to LEAs in Sri Lanka and Taiwan, along with presentations at Cyber Safety Pasifika workshops and INTERPOL events.

3C. Community Engagement – continued

3C.6. External relations coordination

TYPES

- 192 Training
- 33 Member Outreach
- 28 NOG
- 27 Security
- 21 Foundation Project
- 20 Foundation Engagement
- 20 Internet Governance
- 19 Government
- 18 NIR Engagement
- 17 Technical
- 14 Coordination
- 13 Membership Development
- 8 CERT Engagement
- 7 Technical Assistance
- 5 Development
- 2 APNIC

LOCATIONS

- 75 Asia Pacific
- 72 East Asia
- 34 Global
- 76 Oceania
- 75 South Asia
- 112 South East Asia
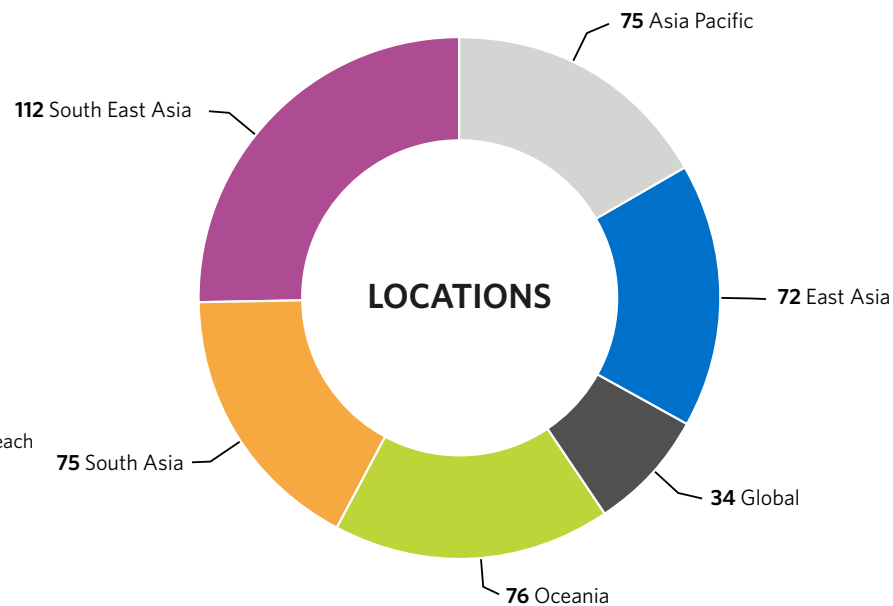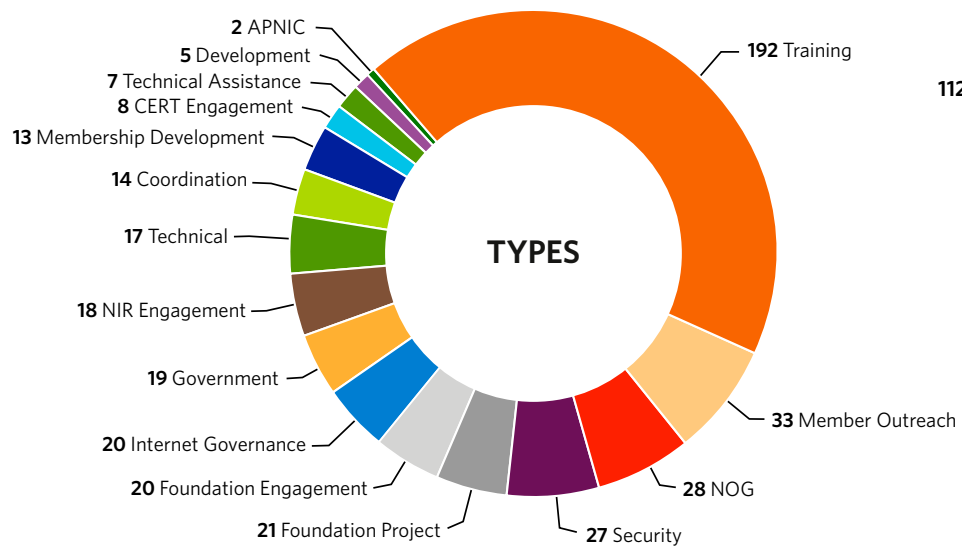
Engagements are units of measurement for meaningful interactions by APNIC staff with the community through events. There are currently 15 types of engagements in APNIC, as shown on pages 51 and 52.

3C. Community Engagement – continued

3C.6. External relations coordination

Legend:
- ● Complete
- ○ Planned
- Ⓕ Foundation Supported
- Ⓡ Remote

- ● APNIC
- ● CERT engagement
- ● Coordination
- ● Development
- ● Foundation projects
- ● Foundation Engagement
- ● Government
- ● Internet governance
- ● Member outreach
- ● Membership development
- ● NOG
- ● Security
- ● Technical
- ● Technical assistance
- ● Training
- ● NIR engagement
- ● Other

SOUTH ASIA
- AF
- BD
- BT
- IN
- LK
- MV
- NP
- PK

EAST ASIA
- CN
- HK
- JP
- KR
- MN
- MO
- TW

ASIA-PACIFIC (AP)

OCEANIA
- AU
- NZ
- FJ
- PG
- VU
- TO
- WS
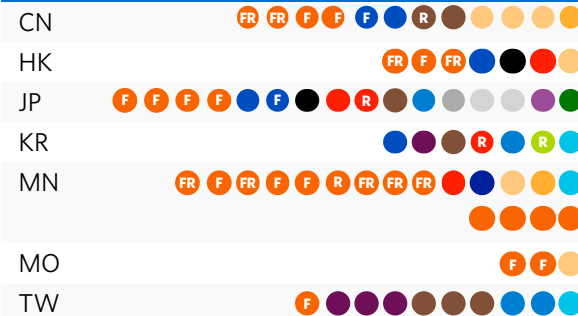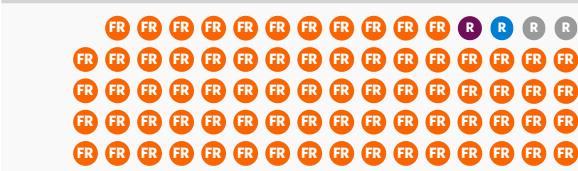
SOUTH EAST ASIA
- ID
- KH
- LA
- MM
- MY
- PH
- SG
- TH
- TL
- VN
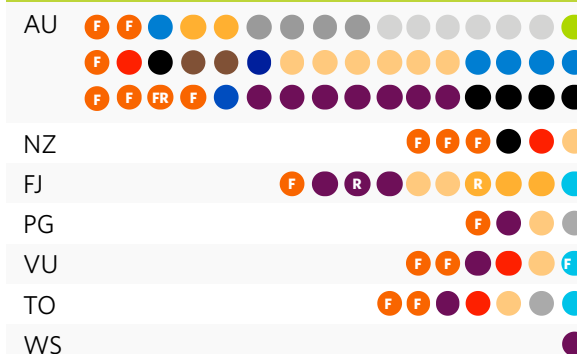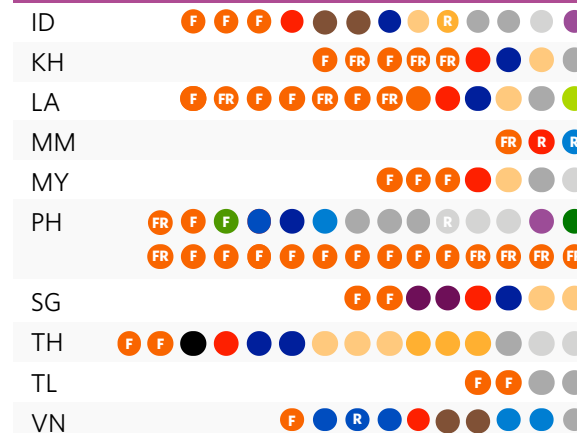
Global Collaboration
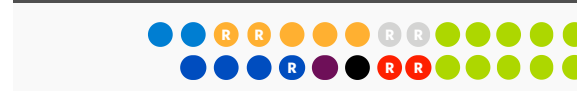
3C. Community Engagement – continued

SUCCESS INDICATORS – 3C

Targets	Results	Status
Support at least 22 technical community events (opportunity permitting).	41 events	🟢
Support at least one new/revived NOG in two sub-regions (if required).	2 out of 2	🟢
Support at least 15 security community events (opportunity permitting).	22 events	🟢
Support development of at least four new or existing CERTs/CSIRTs (if needed).	6 supported	🟢
Participate in all NRO EC and I-star coordination meetings.	Completed	🟢
Participate in all RIR Open Policy Meetings (physically or remotely).	6 out of 6	🟢
Submit at least two workshop proposals at both the APrIGF 2023 and IGF 2023.	Completed	🟢
Participate and/or sponsor at least five national or sub-regional Internet governance activities.	11 events	🟢
Participate and/or sponsor at least two schools of Internet governance or academies such as APIGA.	5 events	🟢
Complete at least seven capacity building partnerships with governments, intergovernmental agencies and public safety agencies.	10 events	🟢
Achieve at least 25 new touchpoints related to international cyberpolicy processes, such as UN-OEWG.	10 out of 25	🔴
Achieve at least 300 APNIC engagements.	444 engagements	🟢
Participate remotely in at least 30% of total engagements.	32% (145 out of 444)	🟢

3D. Community Participation

OPERATIONS

3D.1. Community-led processes

A community proposal to update the SIG Guidelines, to ensure the integrity of Special Interest Group (SIG) elections (following anomalies observed at APNIC 54), reached consensus at a joint sitting of the SIGs and at the APNIC 55 AGM. SIG meetings at APNIC conferences attracted 611 participants (in-person and online).

Four meetings were held between the EC and staff with elected community representatives (of SIGs, IANA RC, NRO NC, APIX and APNOG) on topics including governance and by-law changes, future conference structure and locations, policy engagement and SIG attendance.

3D. COMMUNITY PARTICIPATION

	Budget	Actual
PY	3.77	2.60
Expenses	758,604	752,542
CAPEX	-	-

3D. Community Participation – continued

3D.2. Online participation

Orbit users grew by 1,378, with active discussions on apnic-talk and new lists created in 2022 helping drive 1,845 posts to Orbit mailing lists.

🔗 **orbit.apnic.net**

TOTAL ORBIT POSTS & NEW USERS

Legend: ■ Number of posts   ■ Orbit new users
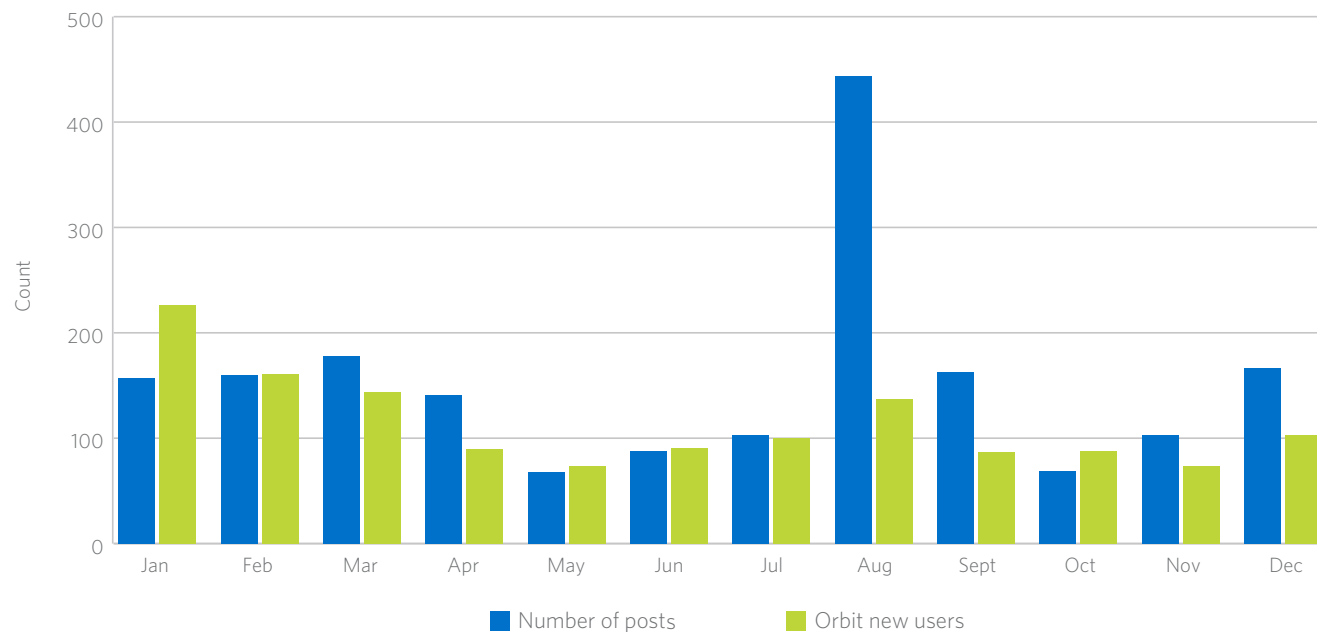
3D. Community Participation – continued

3D.3. Encouraging newcomers and diversity

Thirty-two fellows (19 female, 12 male and 1 unspecified; 22 professionals, 8 youth and 2 returning fellows) were selected from 491 applicants for the 2023 fellowship program.

Twelve fellowship webinars were delivered with 95% overall attendance, and each fellow completed an average of four APNIC Academy courses. There were also 13 mentoring sessions held between 16 fellows and 13 mentors drawn from the community. The program achieved a graduation rate of 94% and an NPS of 100.

Forty-six percent of APRICOT 2023 attendees (387) and APNIC 56 attendees (233) were newcomers.

3D. Community Participation – continued

SUCCESS INDICATORS – 3D

Targets	Results	Status
Achieve at least 400 SIG participants (in-person and online) across two conferences.	611 participants	🟢
Achieve elected leaders support satisfaction of at least 6/7.	6.75 out of 7	🟢
Achieve at least 650 new registered users Orbit.	1,378 new users	🟢
Achieve at least 1,500 new Orbit posts.	1,845 new posts	🟢
Attract at least 400 newcomers to APNIC conferences.	620 newcomers	🟢
Maintain fellowship cohort age and gender diversity (50% female and 20% youth in 2022).	59% female, 25% youth	🟢
Achieve a fellowship graduation of at least 80%.	94%	🟢
Achieve a fellowship program NPS of at least 80.	NPS 100	🟢

3E. APNIC Academy

OPERATIONS

3E.1. Academy product management

academy.apnic.net

The APNIC Academy published two new online, self-paced, courses on Cybersecurity Fundamentals and Introduction to BGP.

Eleven new virtual labs were added, including:

- Hashing
- DNS Tunnelling
- Brute-force SSH
- Syslog Detection
- IXP Manager Setup
- IXP Peering

- BGP Traffic Engineering (Cisco IOS)
- RPKI Sandbox
- BGP Monitoring with BGPalerter
- Memory Forensics (Linux)
- Deploy a Honeypot

Two virtual labs – RPKI (with RPKI-Prover) and Linux Basics – were updated.

Participants completed 2,816 courses (5,999 contact hours) and launched 21,064 labs (25,548 hours completed) on the APNIC Academy in 2023. The online platform now has 34,333 accounts after 9,743 new accounts joined.

3E. APNIC ACADEMY

	Budget	Actual
PY	19.65	17.44
Expenses	4,364,434	4,706,714
CAPEX	15,000	13,183

3E. APNIC Academy – continued

3E.2. Training events

APNIC trainers conducted a total of 188 courses (108 online/hybrid and 80 face-to-face) to 4,782 attendees, including:

- Workshops at 28 technical community events, including 16 NOGs.
- Two workshops at APRICOT 2023.
- Two workshops, four tutorials and an RPKI Deployathon at APNIC 56.
- Five workshops with NIRs (two online and three in-person).
- Four workshops in in partnership with APT in Cambodia, Indonesia, Papua New Guinea and Sri Lanka.
- Two workshops in Lao PDR with support from KDDI.

Forty online Open Tutorials were also conducted.

In addition, trainers supported the Asia Pacific Internet Engineer (APIE) program by leading the DNS setup at two camps in Japan and Indonesia.

3E.3. Community Trainers network

New Retained Community Trainers (RCTs) from Bangladesh, Lao PDR, Papua New Guinea, Sri Lanka and Vanuatu, and new Volunteer Community Trainers (VCTs) from Bangladesh, India, Indonesia, Nepal and Thailand were recruited. There are 43 active CTs from 18 economies who were the primary trainers for 74 events.

Online Open Labs continue to be facilitated by RCTs with 26 conducted in 2023. RCTs have also begun to lead Open Tutorials.

academy.apnic.net

academy.apnic.net/en/community-trainers

3E. **APNIC Academy** – continued

3E.4. Technical assistance

Technical assistance was provided to Members from Australia, Bangladesh, Cambodia, Maldives, Micronesia, Mongolia, Nepal, and the Philippines on the following topics:

- IPv6 address planning and peering, IPv6 implementation, IPv6 network troubleshooting and high fragment IPv6 drop rate.
- ROA deployment, RPKI validator server setup, RPKI validator troubleshooting, ROA creation and configuring RPKI ROV.
- Domain network management.
- IXP setup, IXP reconfiguration and peering configuration.
- PCH route advertisement issues.

All technical assistance requests were responded to within seven days.

academy.apnic.net/en/technical-assistance

3E.5. RPKI awareness and deployment support

Twenty-eight RPKI training sessions were conducted, with 10 of those led by RCTs. An RPKI Deployathon was also held at APNIC 56.

Lao PDR reached 93.29% ROA coverage after two RPKI/ROV training sessions and Macao reached 94.2% ROA coverage following RPK/ROA training held in Cantonese. Vanuatu also reached 92.5% ROA coverage, following APNIC assistance provided to local operators.

Two RPKI deployment case studies were also published.

apnic.net/rpki

3E. APNIC Academy – continued

TOP 10 ECONOMIES WITH ROAs

- **1,479** BD
- **2,688** ID
- **900** AU
- **639** VN
- **444** HK
- **324** TW
- **288** PK
- **268** JP
- **244** NZ
- **3,740** IN
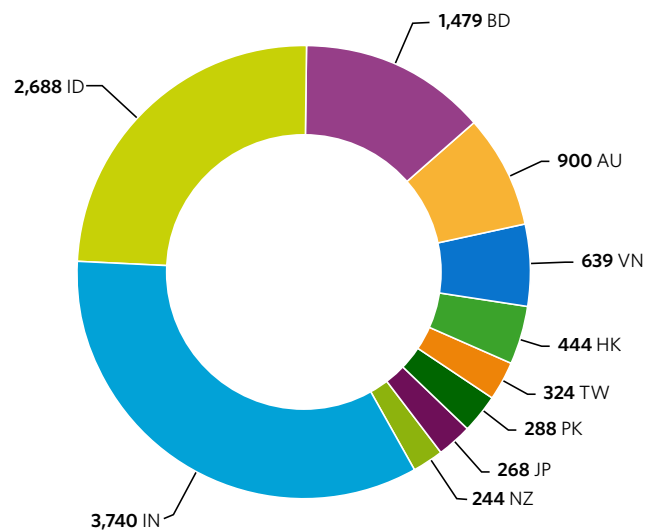
3E.6. IPv6 awareness and deployment support

IPv6 capability for the Asia Pacific region grew to 45.34%, as measured by APNIC Labs.

Fifty-three IPv6-focused training events were delivered, with 21 led by RCTs. IPv6 training was delivered with the Mongolian government, with APT in Papua New Guinea and Cambodia, and with four NIRs (IRINN, CNNIC, TWNIC and IDNIC).

Two new IPv6 deployment success stories were published.

🔗 **apnic.net/ipv6**

3E. **APNIC Academy** – continued

3E.7. IXP and peering awareness support

Seven IXP-related training sessions were conducted in Myanmar, Fiji, Pakistan, the Philippines, Timor Leste, Sri Lanka, and Japan. IXP technical assistance was also provided to four Members in Bangladesh, Mongolia, Maldives and the Philippines.

APNIC hosted and supported the APIX meetings at APRICOT 2023 and APNIC 56, and sponsored the BKNIX Peering Forum.

Nine blog posts related to IXPs and peering have been published.

3E. **APNIC Academy** – continued

INVESTMENTS

3E.8. Academy product development

Roadmap goals completed:
- Improve Academy data reporting with BI tools
  - Academy data compiled and ready for consumption.
- Design training certification program
  - IPv6 certification syllabus, lab topology designs and examinations methodology completed.
- Integrate TA platform with Salesforce case management tools
  - Salesforce API and code development completed.

Roadmap goals in progress
- None

Additional goal completed
- Stage 2 of the Training Wiki migration to the APNIC Academy
  - Migration complete and Training Wiki decommissioned.

Additional goals in progress
- None

Goals deferred
- None

3E. **APNIC Academy** – continued

3E.9. Curriculum for non-technical audiences

A Minimum Viable Product (MVP) of the online interactive narrative puzzle, IPGO, was launched and is available in the Google Play and Apple App stores.

3E. **APNIC Academy** – continued

SUCCESS INDICATORS – 3E

Targets	Results	Status
Maintain Academy platform availability of at least 99.95%.	99.98% availability	🟢
Achieve at least 10,000 hours of usage in self-paced online courses and virtual labs in 2023.	25,548 hours	🟢
Achieve a total of 30,000 registered users on the Academy platform in 2023.	34,333 users	🟢
Achieve a CES of at least 4 out of 5 for the APNIC Academy platform.	4.4 out of 5	🟢
Conduct at least 40 online/hybrid training events led by staff/guest trainers.	51 events	🟢
Conduct at least 40 in-person training events led by staff trainers.	63 events	🟢
Achieve a minimum training topic coverage of 8 RPKI/ROV, 8 IPv6, and 6 IXP and Peering sessions.	28 RPKI/ROV 53 IPv6 7 IXP and Peering	🟢
Achieve average training survey rating of 4 out of 5.	4.3 out of 5	🟢
Conduct 40 training events led by CTs.	74 events	🟢
Retain 12 retained CTs (balanced across sub-regions) by end of 2023.	10 out of 12	🔴
Retain 30 volunteering CTs (balanced across sub-regions) by end 2023.	33 VCTs	🟢
Respond to all technical assistance requests within seven days.	Completed	🟢

3E. **APNIC Academy** – continued

SUCCESS INDICATORS – 3E CONTINUED

Targets	Results	Status
Achieve at least 90% ROA coverage for at least one additional economy per sub-region.	3 out of 4	🔴
Maintain at least 90% ROA coverage for all economies past 90% coverage before 2023.	Completed	🟢
Publish at least two RPKI/ROV deployment case studies.	2 published	🟢
Publish at least two IPv6 deployment case studies.	2 published	🟢
Asia Pacific IPv6 capability continues to increase beyond 35%.	45.34%	🟢
Conduct at least four IXP technical assistance engagements in 2023.	4 out of 4 (FJ, PH, MN, MV)	🟢
Support APIX meetings at two APNIC conferences, Peering Asia, and at least two peering forums.	2 out of 2 APIX meetings 2 out of 2 peering forums	🟢
Publish at least eight blog posts related to IXPs and peering.	9 published	🟢
Achieve all 2023 goals, according to the Academy Products Roadmap.	4 completed	🟢
Launch minimum viable product (MVP) of the IPGO game before end of Q2.	Completed	🟢

3F. Internet Infrastructure Support

OPERATIONS

3F.1. Internet infrastructure deployment

IXP upgrade support was provided in Fiji, Thailand and Mongolia. Work also began to help bootstrap a Samoa IXP.

Equipment issues prevented the deployment of RIPE Atlas anchor upgrades.

3F.2. Community Honeynet and Security Threat Sharing Platform

The Honeynet backend infrastructure was upgraded and 100 new sensors were deployed, bringing the total honeypot sensors to 200. The honeypots provided daily feeds for APNIC's DASH product, the ShadowServer Foundation, MISP and the CERT/CSIRT community.

Quarterly threat sharing meetings were held with partners and the community to discuss the latest observations, including a workshop on honeypots in collaboration with the Mongolia University of Science and Technology.

3F. INTERNET INFRASTRUCTURE SUPPORT

	Budget	Actual
PY	2.01	1.16
Expenses	1,203,453	1,131,381
CAPEX	10,000	-

3F. Internet Infrastructure Support - continued

INVESTMENTS

3F.3. M-root deployment support

M-root server deployments in Jakarta (ID), Ulaanbaatar (MN), Kaohsiung (TW), Hong Kong (HK) and Phnom Penh (KH) were completed.

Deployment began on seven M-root anycast nodes in Dhaka (BD), Kathmandu (NP), Mumbai and Kolkata (IN), Lahore (PK), Quezon City (PH) and Sao Paulo (BR). Five additional sites identified in 2023 are under negotiation and preparation.

3F. Internet Infrastructure Support - continued

SUCCESS INDICATORS – 3F

Targets	Results	Status
Support deployment of at least two new or upgraded IXPs.	3 supported	🟢
Support at least two IXPs to deploy ROV.	1 out of 2	🔴
Deploy or upgrade at least one RIPE Atlas anchor per sub-region.	0 out of 4	🔴
Increase the number of honeypot sensors to 200 (+100% on 2022).	100 out of 100	🟢
Increase Community Honeynet and Security threat Sharing Platform partners to 26 (+30% on 2022).	6 out of 6	🟢
Organize quarterly threat sharing community events.	4 out of 4	🟢
Complete 12 M-Root server deployments commenced before 2023.	5 out of 12	🔴
Identify and prepare at least 12 additional M-Root server sites.	12 out of 12	🟢

4. INFORMATION

OBJECTIVE

• Support Internet development with needed network information services and research outcomes that are of demonstrated value to the community

WORKSTREAMS

4A. Information Products
4B. Research and Analysis

4. INFORMATION

	Budget	Actual
PY	8.74	7.76
Expenses	2,918,493	2,867,214
CAPEX	45,000	25,730

4A. Information Products

OPERATIONS

4A.1. APNIC Blog and podcast

The APNIC Blog averaged 84,915 unique views per month in 2023, a 6.5% increase on 2022's monthly average of 79,707. There were 161 Guest Posts, representing 53% of total opinion posts (a decrease on 2022's 60%).

The Blog passed 5 million all-time views in July and reached 1 million views in a calendar year for the first time.

Twenty-four episodes of the PING podcast were published, attracting 23,609 'impactful plays' (episode listens of 75% or longer), an average of 984 plays per episode.

blog.apnic.net

BLOG VIEWS
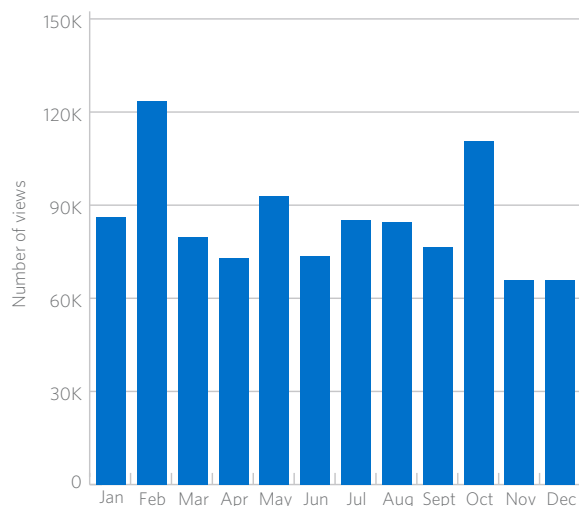
PODCAST IMPACTFUL PLAYS
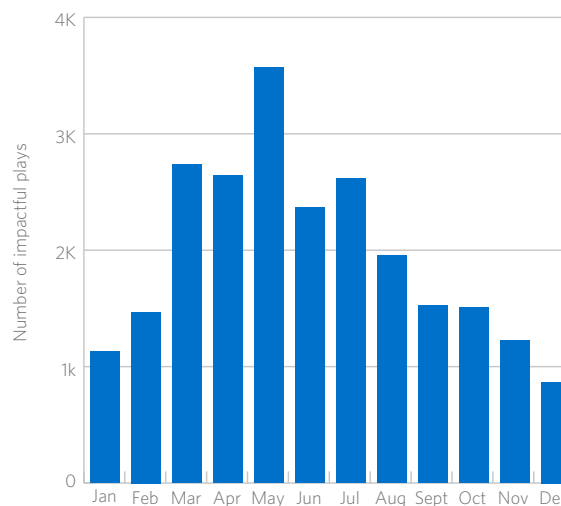
4A. INFORMATION PRODUCTS

	Budget	Actual
PY	7.79	6.51
Expenses	1,889,141	1,847,009
CAPEX	-	-

4A. Information Products – continued

4A.2. Information product management

A new version of REx, providing worldwide Internet data, statistics and measurements, was released. RPKI and DNSSEC deployment measurements from APNIC Labs were also added to REx.

DASH alerts subscribers increased 74% to 174 subscribers (for a total of 276 alerts). There are also 94 subscribers to suspicious traffic reports.

Availability of DASH, NetOX and REx was maintained at 99.99%.

MONTHLY NUMBER OF USERS
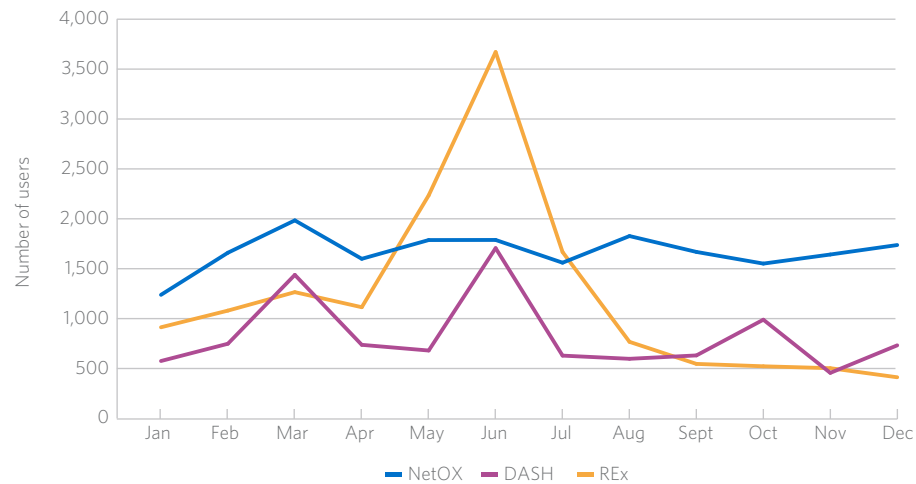
4A. Information Products – continued

INVESTMENTS

4A.3 Information product development

Roadmap goals completed

- Add suspicious traffic alerts to the notification platform
  - Suspicious traffic alerts now support SMS and Slack, in addition to email.
- Expand REx to cover global RIR delegation data
  - Completed.
- Add DASH widgets to the MyAPNIC dashboard
  - Completed.
- Expand notification channels
  - Added support to WhatsApp and Webhooks to the notification platform.
- Add DNSSEC and RPKI statistics to REx
  - Added measurements from APNIC Labs to REx.
- Complete a prototype that explores graph database capabilities
  - Prototype completed.

Roadmap goals in progress

- None

Additional goals completed

- None

Additional goals in progress

- None

Goals deferred

- None

4A. Information Products – continued

4A.3 APNIC website refresh

A full information architecture review of apnic.net was completed, following research and consultation with 149 community members. The review recommended navigation improvements so users can find information easier.

Content on the website was also reviewed and updated.

4A. Information Products – continued

SUCCESS INDICATORS – 4A

Targets	Results	Status
Achieve average of at least 78,000 Blog views per month (in line with 2022).	84,915	🟢
Maintain Blog Guest Post ratio between 45-65%.	53%	🟢
Achieve at least 12,000 podcast listens.	23,609	🟢
Maintain Information Product availability of at least 99.95%.	99.99%	🟢
DASH alert subscribers increase to 120 (+20 on 2022).	174	🟢
Achieve all 2023 goals, according to the Information Products Roadmap.	6 completed	🟢
Complete information architecture review by end of Q2.	Completed	🟢
Complete content review by end Q2 and content refresh by end Q4.	Completed	🟢

4B. Research and Analysis

OPERATIONS

4B.1. Conducting research and measurements

APNIC Labs continued analysis of IPv4 and IPv6 advertised, unadvertised and reserved address pools over time, and work on automated BGP anomaly detection.

DNS research included analysis of large DNS responses handling, adoption of DOH, and DNS query patterns.

4B.2 Research cooperation

APNIC continued cooperative research with the Internet Society in support of MANRS, providing a feed of routing data. Measurements on aspects of the DNS and DNSSEC were also provided to ICANN as part of a cooperative research agreement.

Research with Cloudflare continued on the characteristics of DNS query traffic presented to the Cloudflare 1.1.1.1 open recursive resolver.

4B.3 Sharing research outcomes

A total of 34 research blog articles and 12 podcasts were published, with 27 presentations on research findings shared at technical forums globally.

labs.apnic.net

4B. RESEARCH AND ANALYSIS

	Budget	Actual
PY	0.95	1.25
Expenses	1,029,352	1,020,205
CAPEX	45,000	25,730

4B. Research and Analysis – continued

SUCCESS INDICATORS – 4B

Targets	Results	Status
Undertake at least three significant cooperative research activities.	3 activities	●
Publish at least 20 articles or reports on resource outcomes.	34 articles	●
Present at least 15 research presentations, including at least two at APNIC conferences.	27 presentations	●
Discuss research on 12 podcasts.	12 out of 12	●

5. CAPABILITY

OBJECTIVES

- 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

WORKSTREAMS

5A. Internal Technical Infrastructure
5B. Finance and Business Services
5C. Employee Experience
5D. Governance

5. CAPABILITY

	Budget	Actual
PY	40.54	40.37
Expenses	10,820,949	10,164,247
CAPEX	995,900	333,524

5A. Internal Technical Infrastructure

OPERATIONS

5A.1. Architecture and technical coordination

The selection and testing of the latest production release of Red Hat Enterprise Linux 9 (RHEL9) as the replacement operating system for CentOS 7 was completed. A build infrastructure to assist in migrating code to RHEL9 was established and porting projects to the new OS progressed.

The API portal work was merged into the Registry API work, with the Registry API scheduled for beta production in early 2024 (See 2B.4 for more information).

A policy on generative AI usage was drafted and consolidated within the Acceptable Usage Policy.

5A.2. Network and infrastructure operations

Availability of critical APNIC services was maintained to at least 99.99% during the year (see breakdown below).

Data centre failover testing was completed on the firewall and F5 load balancer, including backup recovery and validation of the RPKI repository. Data centre failover with BGP was also tested, including backup recovery and validation of the database, infrastructure DNS zones, conference submission system and DNSSEC signer keys.

Core system uptime	
FTP	99.99%
MyAPNIC	99.99%
RDNS	99.99%
RDNS DNSSEC Validity	100%

Core system uptime	
Whois	99.99%
RPKI	99.99%
RDAP	99.99%
IRR	99.99%

5A. INTERNAL TECHNICAL INFRASTRUCTURE

	Budget	Actual
PY	16.18	16.82
Expenses	4,244,591	3,878,563
CAPEX	367,200	322,744

5A. Internal Technical Infrastructure – continued

5A.3. System and platform operations

APNIC continued migrating its public services to a new load balancer, with 84.3% completed. Migration will continue in 2024.

APNIC shared how service availability will be calculated and presented, and updated the existing monitoring system to detect outages faster. Development of a new service availability page progressed.

Average data centre bandwidth usage (Mbps)	
AU edge inbound	128
AU edge outbound	354
JP edge inbound	33
JP edge outbound	112

Average query rates per second	
Whois	614
RDAP	50
RDNS	61,400
RPKI (RSYNC and RRDP)	43
FTP (HTTP + FTP)	16
MyAPNIC	0.2

5A. Internal Technical Infrastructure – continued

5A.4. Internal security operations

APNIC passed its annual ISO 27001 external surveillance audit with five minor findings.

The Hacker One Bug Bounty Program and Vulnerability Reporting Program received 31 valid vulnerability reports. All critical and high severity vulnerability reports were assessed and resolved within target timeframes.

5A.5 Enterprise applications and IT support

98% of IT support tickets (1,756/1788) were resolved within the two-business-day SLA.

5A.6 Security infrastructure upgrades

APNIC completed the rollout of Zero Trust Network Access to improve secure remote access to company systems.

Semgrep code testing was integrated into common development pipelines and to actively scan 50 projects. It will be rolled out further in 2024 to all production code projects.

5A.7 Technical infrastructure and operations improvements

APNIC completed migration of 80% of Linux hosts to a supported operating system in 2023. The migration will be 100% complete in 2024.

5A. Internal Technical Infrastructure – continued

SUCCESS INDICATORS – 5A

Targets	Results	Status
API portal completed and launched by Q4.	Now part of Registry API	🔴
At least 20 technical coordination meetings held with all product teams.	20 out of 20	🟢
Complete quarterly data centre failover and backup recovery tests.	4 out of 4 completed	🟢
Respond to all critical incidents within 20 minutes.	No critical incidents	🟢
Maintain availability of 99.99% for critical APNIC services and 99.95% for less-critical services.	99.99% (critical services) 99.98% (less critical services)	🟢
Migrate 80% of public services to the new load balancer.	84.3% completed	🟢
Provide real-time monitoring in percentage format to 3 decimal places.	Expected Q1 2024	🔴
Achieve successful ISO 27001 surveillance audit.	Successfully completed	🟢
Mitigate all critical vulnerability reports within seven days and resolve within 30 days.	2 out of 2 resolved	🟢
Meet SLA of two business-day response for internal IT support.	98% met	🟢
Migrate staff to ZTNA for corporate network access by Q3.	Completed	🟢
Introduction of development code vulnerability scanning by Q3.	Completed	🟢
Migrate 80% of hosts to operating systems with long term support.	80% completed	🟢

5B. Finance and Business Services

OPERATIONS

5B.1. Financial services

The annual audit of APNIC's 2022 financial accounts was completed by Ernst & Young and presented to the EC at APNIC 55.

A commercial valuation of APNIC's office building was completed and is reflected in APNIC's balance sheet.

Assessments of liability for tax obligations under Singapore GST and Cambodia VAT were conducted, and tax registration was completed to comply with local laws.

APNIC's Discretionary Portfolio Management Agreement with UBS was updated to reflect the EC's decision to move APNIC's investment portfolio to a 'Sustainable Yield' setting.

5B.2. Business services

An updated travel risk assessment framework and WHS Risk Register was established.

Negotiations with potential travel vendors are in progress to streamline APNIC's travel management processes.

5B. FINANCE AND BUSINESS SERVICES

	Budget	Actual
PY	14.89	14.97
Expenses	3,300,639	3,162,994
CAPEX	628,700	10,780

5B. Finance and Business Services – continued

5B.3. Business intelligence and data analytics

A new report automation platform was established to take advantage of existing system capabilities and produce activity reporting and monthly financial reports.

The Data Warehouse backend was re-architected to use Snowflake. Work progressed on designing data transformation models and automation.

Identification and cataloguing of critical business data progressed, with a new data governance system implemented to manage the data catalogue.

5B. **Finance and Business Services** – continued

INVESTMENTS

5B.4 Workspace improvement

The refurbishment of APNIC's office at 6 Cordelia Street was completed within budget. Repairs to the carpark were delayed due to geotechnical engineering issues, and will be completed in mid-2024.

5B. **Finance and Business Services** – continued

SUCCESS INDICATORS – 5B

Targets	Results	Status
Achieve a successful audit of APNIC's annual financial accounts.	Completed	🟢
Provide APNIC EC with accurate financial reporting each quarter.	Completed	🟢
EC approval of the annual budget before 31 December.	Completed	🟢
Zero WHS incidents due to APNIC-controlled environmental factors.	Zero incidents	🟢
100% of critical business data from all five pillars of activities stored in APNIC data warehouse.	Delayed to 2024	🔴
100% report automation data sourced from data warehouse.	Delayed to 2024	🔴
Repairs and upgrades completed in line with budget.	Delayed to 2024	🔴
Finalize contract with APIDT on new office space by end Q4.	Delayed to 2024	🔴

5C. Employee Experience

OPERATIONS

5C.1. Organizational development

Employee Engagement Surveys were conducted using the Glint platform in April and November, recording staff engagement scores of 79 and 82, both above the global benchmark of 76. Scores achieved for diversity (89) and culture (80) both exceeded globak benchmarks (75 and 73 respectively).

An organizational structure review was completed and a restructure around the four new Strategic Pillars was completed.

5C.2. Talent attraction and retention

There was zero headcount growth in APNIC-funded roles in 2023, with recruitment focused on attracting Community Trainers and filling positions left vacant due to staff departures.

5C.3. Talent attraction and retention

New contracts were executed for employees on older 'maximum term contracts' following legislative changes.

Annual performance reviews and other HR administration/compliance was completed as planned.

5C. EMPLOYEE EXPERIENCE

	Budget	Actual
PY	6.05	5.42
Expenses	2,125,241	1,885,778
CAPEX	-	-

5C. **Employee Experience** – continued

SUCCESS INDICATORS – 5C

Targets	Results	Status
Meet or exceed LinkedIn Glint global benchmark for employee engagement (76).	82	●
Meet or exceed LinkedIn Glint global benchmark for diversity (75).	89	●
Meet or exceed LinkedIn Glint global benchmark for culture (73).	80	●
Employee turnover is at or below the Human Capital Index global benchmark of 5-15%.	7.2%	●
All vacancies are filled within 90 days.	Completed	●
Meet or exceed LinkedIn Glint global benchmark for employee reward (66).	72	●
No adverse results from any employment or migration matter.	Nil	●

5D. Governance

OPERATIONS

5D.1. Executive Council (EC) support

Kenny Huang (5,601 votes), Yoshinobu Matsuzaki (5,734 votes), Roopinder Singh Perhar (4,813 votes), and Anlei Hu (4,175 votes) were elected to the APNIC EC for two-year terms.

The EC established a Fee Review Sub-Committee (FRS) at its May meeting to review APNIC's fee structure. Three meetings of the FRS were held, and the recommendations of the committee were accepted by the EC in September and announced at APNIC 56.

The annual EC satisfaction survey achieved a high level of satisfaction with the support provided by the Secretariat to EC members.

5D.2 Corporate governance, legal support and risk management

The Strategic Risk Register was updated and reviewed quarterly by the EC.

The ISO 9001 external surveillance audit was successfully completed with zero non-conformances.

APNIC EC Limited was officially appointed as trustee of the sole share in APNIC Pty Ltd. A majority of EC Members were appointed as Directors of APNIC Pty Ltd and APNIC EC Limited.

Five resolutions from the EC to amend the APNIC By-laws (to improve the integrity of APNIC's elections) were put to a vote of the membership at APNIC 56. All resolutions passed with around 90% votes in favour.

Prior to the vote, feedback on the proposed reforms was gathered via Orbit mailing lists, two online community consultation sessions, and presentations to each of the NIRs.

apnic.net/ec

5D. GOVERNANCE

	Budget	Actual
PY	3.42	3.17
Expenses	1,150,479	1,236,911
CAPEX	-	-

5D. **Governance** – continued

SUCCESS INDICATORS – 5D

Targets	Results	Status
Achieve a satisfaction rating of at least 6/7 from a survey of EC members.	6.7 out of 7	●
Complete quarterly risk reporting to the EC.	4 out of 4	●
Achieve a successful ISO 9001 surveillance audit.	Completed	●

2023 FINANCIAL REPORT BY ACTIVITY

Activity	PY Budget 2023	PY Actual 2023	PY Variance	OPEX Budget (AUD) 2023	OPEX Actual (AUD) 2023	OPEX Variance	CAPEX Budget (AUD) 2023	CAPEX Actual (AUD) 2023	CAPEX Variance
Member Services	12.78	13.21	3%	2,859,774	2,993,098	5%	-	-	-
Membership Products	8.27	8.36	1%	1,656,941	1,631,971	-2%	-	-	-
Membership Reporting	1.69	1.49	-12%	974,739	1,111,816	14%	-	-	-
Membership - Total	**22.74**	**23.06**	**1%**	**5,491,454**	**5,736,885**	**4%**	**-**	**-**	**-**
Registraion Services	4.89	5.02	3%	773,260	782,836	1%	-	-	-
Registry Products	9.50	9.26	-3%	2,672,833	2,720,269	2%	-	-	-
Policy Development	0.69	0.77	12%	756,472	620,427	-18%	-	-	-
Registry - Total	**15.08**	**15.05**	**0%**	**4,202,565**	**4,123,532**	**-2%**	**-**	**-**	
APNIC Conferences	4.35	5.86	35%	1,789,436	1,747,402	-2%	33,500	23,154	-31%
Foundation Support	1.40	0.67	-52%	-	-	-	-	-	-
Community Engagement	6.24	7.16	15%	2,243,177	2,235,260	0%	-	-	-
Community Participation	3.77	2.60	-31%	758,604	752,542	-1%	-	-	-
APNIC Academy	19.65	17.44	-11%	4,364,434	4,706,714	8%	15,000	13,183	-12%
Internal Infrastructure Support	2.01	1.16	-42%	1,203,453	1,131,381	-6%	10,000	-	-100%
Development - Total	**37.42**	**34.89**	**-7%**	**10,359,105**	**10,573,298**	**2%**	**58,500**	**36,337**	**-38%**
Information Products	7.79	6.51	-16%	1,889,141	1,847,009	-2%	-	-	-
Research and Analysis	0.95	1.25	32%	1,029,352	1,020,205	-1%	45,000	25,730	-43%
Information - Total	**8.74**	**7.76**	**-11%**	**2,918,493**	**2,867,214**	**-2%**	**45,000**	**25,730**	**-43%**
Internal Technical Infrastructure	16.18	16.82	4%	4,244,591	3,878,563	-9%	367,200	322,744	-12%
Finance and Business Services	14.89	14.97	1%	3,300,639	3,162,994	-4%	628,700	10,780	-98%
Employee Experience	6.05	5.42	-10%	2,125,241	1,885,778	-11%	-	-	-
Governance	3.42	3.17	-7%	1,150,479	1,236,911	8%	-	-	-
Capability - Total	**40.54**	**40.37**	**0%**	**10,820,949**	**10,164,247**	**-6%**	**995,900**	**333,524**	**-67%**
Total	**124.52**	**121.13**	**-3%**	**33,792,566**	**33,465,176**	**-1%**	**1,099,400**	**395,591**	**-64%**

Note: Some numbers presented in this table may not add 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 2023, 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

	2023 (AUD)	2022 (AUD)	% change
Current assets			
Cash and cash equivalents	7,298,216	7,302,763	-0%
Trade and other receivables	5,126,915	4,736,137	8%
Other current assets	1,508,411	1,247,343	21%
Total current assets	**13,933,542**	**13,286,243**	**5%**
Non-current assets			
Financial assets	35,554,548	33,161,465	7%
Property, plant and equipment	8,716,661	6,803,390	28%
Total non-current assets	**44,271,209**	**39,964,855**	**11%**
Total assets	**58,204,751**	**53,251,098**	**9%**

Liabilities

	2023 (AUD)	2022 (AUD)	% change
Current liabilities			
Trade and other payables	2,158,304	1,780,433	21%
Employee benefit liabilities	3,338,476	3,086,849	8%
Contract liabilities	13,263,072	12,379,552	7%
Total current liabilities	**18,759,852**	**17,246,834**	**9%**
Non-current liabilities			
Employee benefit liabilities	524,859	361,744	45%
Net deferred tax liabilities	539,799	57,215	843%
Total non-current liabilities	**1,064,658**	**418,959**	**889%**
Total liabilities	**19,824,510**	**17,665,793**	**12%**
Net assets	**38,380,241**	**35,585,305**	**8%**

Equity

	2023 (AUD)	2022 (AUD)	% change
Contributed equity	1	1	0%
Asset revaluation reserve	1,645,064	0	100%
Retained earnings	36,735,176	35,585,304	3%
Total equity	**38,380,241**	**35,585,305**	**8%**

STATEMENT OF PROFIT OR LOSS

	2023 (AUD)	2022 (AUD)	% change
Revenue			
Membership fees	25,781,903	24,717,563	4%
Non-Member fees	315,510	259,616	22%
Reactivation fees	20,000	18,800	6%
Sign-Up fees	255,750	258,750	-1%
Transfer fees	271,076	177,643	53%
APNIC Foundation funded projects receipts	4,589,804	3,762,837	22%
Sundry income	621,732	301,093	106%
Foreign exchange gain/ (loss)	1,159	11,668	-90%
Operating revenue	**31,856,935**	**29,507,970**	**8%**
Investment income	1,018,181	771,547	32%
Total revenue	**32,875,116**	**30,279,517**	**9%**
Expenses			
Communication expenses	707,163	633,469	12%
Computer expenses	2,058,609	1,883,390	9%
APNIC Foundation funded project expenses	4,589,804	3,702,680	24%
Contribution to ICANN	244,964	231,762	6%
Depreciation expense	659,019	652,215	1%
Meeting and training expenses	765,930	597,066	28%
Office operating expenses	392,037	611,541	-36%
Professional fees	1,395,992	1,971,461	-29%
Salaries and personnel expenses	19,216,053	16,887,009	14%
Sponsorship and publicity expenses	631,098	639,979	-1%
Travel expenses	1,672,769	1,370,504	22%
Other operating expenses	1,131,738	1,399,075	-19%
Total expenses	**33,465,176**	**30,580,151**	**9%**
Operating surplus			
Deficit before tax and fair value gain/ (loss) on financial assets	**(590,060)**	**(300,634)**	**-96%**
Gain/ (loss) on financial assets at fair value through profit or loss	1,674,163	(4,028,706)	142%
Surplus/ (Deficit) before income tax	**1,084,103**	**(4,329,340)**	**125%**
Income tax benefit	65,769	1,069,082	-94%
Surplus/ (Deficit) for the year	**1,149,872**	**(3,260,258)**	**135%**

CASH FLOW STATEMENT

	2023 (AUD)	2022 (AUD)	% change
Cash flows from operating activities			
Receipts from customers	32,291,751	30,277,150	7%
Payments to suppliers and employees	(32,385,075)	(29,522,394)	10%
Interest received	279,133	99,753	180%
Net cash flows from operating activities	**185,809**	**854,509**	**-78%**
Cash flows from investing activities			
Proceeds from sale of property, plant and equipment	24,940	6,372	291%
Purchase of property, plant and equipment	(420,532)	(827,823)	-49%
Investment distribution income	924,156	666,042	39%
Purchase of financial assets	(718,920)	(462,044)	56%
Net cash flows used in investing activities	**(190,356)**	**(617,454)**	**-69%**
Net (decrease)/ increase in cash and cash equivalents	**(4,547)**	**237,056**	**-102%**
Cash and cash equivalents at the beginning of the year	7,302,763	7,065,707	3%
Cash and cash equivalents at the end of year	**7,298,216**	**7,302,763**	**-0%**

2023 Conference and Training Sponsors

APNIC acknowledges and thanks the following organizations for their generous support for APNIC conferences and training events.

SUPPORTERS

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APJII/IDNIC

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TWNIC

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Appendix: Events attended in 2023

The following is the list of events in which APNIC staff participated. An asterisk (*) indicates events where APNIC provided sponsorship.

JANUARY	Economy	Engagement type
PTC'23	US	Technical
Cyberdefcon Bangladesh	BD	CERT Engagement
*MMNOG 5	MM	NOG, Training
Insights on DNS Security	AP	Training
JANOG 51	JP	NOG
IPv6 Awareness Tutorial - Mongolia	MN	Training
RPKI/ROV Tutorial and ROA Session Philippines	PH	Training
Cryptography Fundamentals Tutorial	AP	Training
IPv6 Protocol, Architecture & Address Planning Tutorial	AP	Training
Cryptography Fundamentals Tutorial	AP	Training
Open Lab - Linux Basics	AP	Training
RPKI/ROV Tutorial and ROA Session Nepal	NP	Training
RPKI/ROV Tutorial and ROA Session Cambodia	KH	Training
PCTA Executive Cable Conference and Technical Seminar - South Luzon Cluster	PH	Training

FEBRUARY	Economy	Engagement type
NANOG 87	US	NOG
APRICOT 2023/APNIC 55	PH	Training, APNIC, Technical
ITCN Expo 2023	PK	Membership Development, Member Outreach
Cyber Safety Pasifika 2023-02	VU	Security
OARC 40	US	Technical
Australia IG Roundtable (Canberra)	AU	Government, Internet Governance
Network Security Workshop Malaysia	MY	Training
IPv6 Deployment Workshop Mongolia	MN	Training, Government
APIE Camp	JP	Development
JPNIC Visit	JP	NIR Engagement
KRNIC Visit	KR	NIR Engagement
DWDM Tutorial	AP	Training

	Economy	Engagement type
CERNET: RPKI Online Basic Knowledge Training	AP	Training
CERNET: RPKI Online Hands-on Training	AP	Training
An Introduction to Cyber Threat Hunting in DNS	BD	Training
APTLD 83	LA	Coordination
RPKI/ROV Tutorial and ROA Session Nepal	NP	Training
Open Lab - IPv6 Routing	AP	Training

MARCH	Economy	Engagement type
IETF 116	JP	Technical
ICANN 76	MX	Coordination
*APAN 55	NP	Development, Training, Security
NZNOG 2023	NZ	NOG. Training, Member Outreach
APNIC Foundation Project Site Visits	PH	Foundation Projects
Convergence India 2023	IN	Membership Development, NIR Engagement
IGF 1st Open Consultations and MAG Meeting 2023	AT	Internet Governance
IPv6 Awareness Tutorial - Mongolia	MN	Training
OSPF Operation Tutorial	AP	Training
IS-IS Operations Tutorial	AP	Training
ITU WSIS Forum 2023 (World Summit on the Information Society)	CH	Government
Fourth Intersessional Consultation - UN Ad Hoc Committee Cybercrime Convention	AT	Government
4th Social Enterprise Advocacy and Leveraging (SEAL) Conference	TH	Foundation Engagement
The Asia-Pacific Forum on Sustainable Development (APFSD)	TH	Foundation Engagement
*INNOG 6	IN	NOG, Training, Member Outreach, Membership Development
IPv6 Awareness Tutorial - Philippines	PH	Training
AFRINIC Visit - Stakeholder Engagement	MU	Coordination
IPv6 Awareness Tutorial - Cambodia	KH	Training

MARCH

MARCH	Economy	Engagement type
BGP Fundamentals & Attributes Tutorial	AP	Training
DNS Fundamentals/DNS Operations Tutorial	AP	Training
Open Lab - Routing / OSPF	AP	Training
Paptelco – IXP Deployment Tutorial	PH	Training
TaiwanICDF and USAID Workshop on National Cybersecurity Strategies	FJ	Security
IPv6-only network troubleshooting and ROA for prefixes	NP	Technical Assistance
Foundation PNG Project Meetings	PG	Foundation Projects

APRIL

APRIL	Economy	Engagement type
ARIN 51	US	Coordination
1st Meeting of APT Preparatory Group for WTSA-24 (APT WTSA24-1)	TH	Government
PCTA Convention 2023	PH	Training, Membership Development
RPKI/ROV Tutorial Australia (Melbourne)	AU	Training, Member Outreach
Open Lab - Routing / IS-IS	AP	Training
MPLS Fundamentals Tutorial	AP	Training
RPKI/ROV Tutorial Australia (Adelaide)	AU	Training, Member Outreach
Open Lab: Routing / BGP	AP	Training
PITA Working Group Meeting on Cyber Security & Protection initiatives	FJ	Security
NMM Fundamentals (Intro to NMM + Linux fundamentals)	AP	Training
IPv6 Awareness Tutorial - Mongolia	MN	Training
*KRNOG 1 2023	KR	NOG, NIR Engagement,
Drawing back the curtain on QUT - A WiT Partner Showcase Event	AU	Foundation Engagement
BrisSec 2023	AU	Security
IPv6 Address Planning and Deployment Assistance	BD	Technical Assistance
RPKI/ROV Tutorial - South Bank TAFE Brisbane	AU	Training
PCTA-IX Support	PH	Technical Assistance

MAY

MAY	Economy	Engagement type
*SANOG 39/BDNOG 16	BD	Member Outreach, Training, NOG
LACNIC 39	MX	Coordination
RIPE 86	NL	Coordination

	Economy	Engagement type
APNIC - IPv6 Deployment Workshop Cambodia	KH	Training
APNIC - SDN Workshop Thailand	TH	Training, Member Outreach
KDDI Foundation– Network Monitoring and Management	LA	Training
*BKNIX Peering Forum 2023	TH	Member Outreach, Membership Development, NOG, Training
AusCERT Conference 2023	AU	Security
Internet Fundamentals for Investigators Training - Taiwan LEA	TW	Security
4th ICANN APAC-TWNIC Engagement forum & 39th TWNIC OPM	TW	NIR Engagement, Security
PITA 27th AGM & Business Forum Expo 23	PG	Security, Member Outreach
IXP Workshop - Fiji	FJ	Training
Digital Infrastructure Fund Launch	US	Foundation Engagement
Open Lab: DNS	AP	Training
Youth-oriented capacity workshop by NII	TW	Internet Governance
DNSSEC Fundamentals	AP	Training
Packet Analysis	AP	Training
55th AI3 & SOI Asia Directors Meeting	ID	Foundation Projects
VNNIC Youth IG Webinar	VN	Internet Governance, NIR Engagement
Cyber Security Sector Diversity and Interdisciplinary Research Roundtable	AU	Security
CERNET-DNSSEC Tutorial	CN	Training, Member Outreach
ISIF Asia - Visit to DistantCurve installations	AU	Foundation Projects
China Member Outreach Engagement	CN	Member Outreach
CRC & mnNOG - IPv6 Deployment Workshop Mongolia	MN	Training
CNNIC: IPv6 Workshop (Delivered in Mandarin)	CN	Training
IRINN DNNSEC Tutorial	IN	Training, NIR Engagement
OEWG-ICT Informal Dialogue and Intercessional Meetings	US	Government
OSPF - TAFE Mt Gravatt	AU	Training
UQ Cybersecurity Workshop	AU	Security
TW ICDF Information Security Policy Workshop	TW	Security
ITU 2nd TSAG Meeting 2023	CH	Government
MVIX-PCH Peering configuration assistance	MV	Technical Assistance
MVIX RPKI Validator troubleshooting	MV	Technical Assistance

JUNE	Economy	Engagement type
FIRST Annual Conference 2023	CA	Security
RightsCon 2023	CR	Foundation Engagement
CommunicAsia 2023	SG	Membership Development, Member Outreach
*MyNOG10	MY	Member Outreach, NOG
AVPN Global Conference 2023	MY	Foundation Engagement
ICANN 77 (Policy Forum)	US	Coordination
*btNOG 10	BT	NOG, Training
VNNIC Internet Conference 2023	VN	Internet Governance, NIR Engagement
*npNOG 8	NP	NOG, Training, Member Outreach, Membership Development
PACNOG 31	VU	NOG, Training, Member Outreach
TWNIC – IPv6 Deployment & RPKI Workshop	TW	Training, NIR Engagement
Internet Fundamentals Workshop - Malaysia	MY	Training
APNIC-IPv6 Deployment Tutorial Singapore	SG	Training
23rd APT Policy and Regulatory Forum (PRF-23)	FJ	Government
The seminar of the Asia-Pacific Internet Resources Capacity Building (2023)	CN	Technical
APT - IPv6 Deployment Workshop Cambodia	KH	Training
CNNIC : IPv6 Tutorial	CN	Training
Open Lab: IPv6 Security	AP	Training
BGP Policy Control	AP	Training
IPv6 Deployment Planning & IPv6 Security	AP	Training
NANOG 88	US	NOG
IPv6 Community Event	TO	Member Outreach, Foundation Projects
1st India ISP Conclave	IN	Government, Member Outreach
Linux Skills Webinar: Master SED, FIND, AWK, GREP, and More!	AP	Training
RPKI/ROV Tutorial and ROA Session Laos	LA	Training
yIGF Myanmar 2023	MM	Internet Governance
IPv6 Awareness Tutorial - Mongolia	MN	Training
New York Session: "How does the internet work?" Technical Briefing	US	Government
PCH route advertisement issue in MVIX network	MV	Technical Assistance
KISA/KRNIC Visit to APNIC	AU	NIR Engagement

JULY	Economy	Engagement type
IETF 117	US	Technical
HKIRC - Network Security Workshop Hong Kong	HK	Training, Member Outreach
*JANOG 52	JP	NOG
*IDNOG 8	ID	NOG, Training, Member Outreach
*PHNOG 2023	PH	NOG, Training
APIGA 2023	KR	Internet Governance
2nd IGF Open Consultations & MAG Meeting 2023	CH	Internet Governance
Cyber Safety Pasifika 2023-07	WS	Security
APIE and APNIC Academy planning workshop	JP	Foundation Projects
Network Security Tutorial – Macau	MO	Training, Member Outreach
DNSSEC & NMM Technical Talks – Macau	MO	Training
RPKI/ROV Tutorial Australia (Canberra)	AU	Training, Member Outreach
RPKI/ROV Tutorial Australia (Sydney)	AU	Training, Member Outreach
APT - Network Security Workshop Indonesia	ID	Training
G20 International Conference on Crime and Security	IN	Government
SNMP Fundamentals	AP	Training
TrustCon 2023	US	Foundation Projects
Reverse DNS (IPv4/IPv6)	AP	Training
Global Digital Economy Conference	CN	Technical
APT- IPv6 Deployment Workshop Papua New Guinea	PG	Training
Roundtable Invite - Internet Fragmentation	AU	Government
Streaming Telemetry	AP	Training
Open Lab: NMM / LibreNMS	AP	Training
RPKI/ROV Tutorial and ROA Session Laos	LA	Training
RPKI/ROV Tutorial and ROA Session DIALOG	LK	Training
BSides Brisbane 2023	AU	Security
MANRS Routing Security Summit 2023	AP	Technical
INTERPOL Regional Workshop - How to Preserve and Obtain Electronic Evidence	AP	Security
APAC DNS Forum 2023	HK	Technical
Switch! Timor Leste Welcome Event	TL	Foundation Projects
High fragment drop rate in IPv6	NP	Technical Assistance

AUGUST	Economy	Engagement type
APrIGF 2023	AU	Internet Governance
*APAN 56	LK	Development, Security, Training
Switch! Thailand National Event	TH	Foundation Projects
APIE Camp 2023 Summer	ID	Development, Foundation Projects
IPv6 Deployment Workshop – Timor Leste	TL	Training
IXP Deployment Tutorial – Timor Leste	TL	Training
Cloudflare Connect 2023	AU	Other
InfoSec Taiwan 2023	TW	CERT Engagement
National Conference on Information Technology	FJ	Security
IIXS - The 5th Indonesia Internet Expo & Summit	ID	Membership Development, NIR Engagement
Security2Cure	AU	Security
M-root set up - HKIX	HK	Other
IPv6 Transition Techniques	AP	Training
IPv6 Awareness Tutorial - Mongolia	MN	Training
ISPAB- Advanced BGP Routing and IXP	BD	Training
ISPAB- RPKI, DDoS and Network Security	BD	Training
Introduction to SDN/OpenFlow Tutorial	AP	Training
Critical Infrastructure Cyber Security Workshop	FJ	CERT Engagement
Sri Lanka Police - Internet Fundamentals for Investigators Training	LK	Security
NetThing 2023	AU	Internet Governance
PACIGF 2023	AU	Internet Governance
OSPF Operation Tutorial Mongolia	MN	Training
ISOC IXP Workshop Pakistan	PK	Training
Open Lab - IPv6 Transition	AP	Training
Switch! Laos National Event	LA	Foundation Projects
Switch! Cambodia National Event	KH	Foundation Projects
RPKI/ROV Tutorial and ROA Session Laos	LA	Training
RPKI/ROV Tutorial and ROA Session Hong Kong & Macau (Delivered in Cantonese)	HK	Training
VNNIC visit APNIC Office	AU	NIR Engagement

SEPTEMBER	Economy	Engagement type
APNIC 56 Conference	JP	APNIC, Training, Technical
*SGNOG 10	SG	NOG, Member Outreach
56th AI3 & SOI Asia Joint Meeting	MY	Foundation Projects
AusNOG 2023	AU	NOG, Member Outreach
Switch! Philippines National Event	PH	Foundation Projects
*mnNOG 5	MN	NOG, Training, Member Outreach, Membership Development
AIS 2023 - AfNOG	ZA	Coordination
*IAASysters Workshop	AU	Technical, Member Outreach, Membership Development
inSIG 2023	IN	Internet Governance, Training, Technical
OARC 41	VN	Technical
RPKI/ROV Tutorial - South Asia and Oceania	AU	Training
APTLD 84	KR	Coordination
FIRST Regional Symposium for the Pacific	VU	CERT Engagement
APT Symposium on Inclusive Connectivity	TH	Government
ITU Asia and the Pacific Regional Development Forum 2023 (RDF)	TH	Government
Switch! Vietnam National Event	VN	Foundation Projects
Open Lab: Linux Basics	AP	Training
IPv6 Protocol Architecture & Address Planning	AP	Training
CyberOZ 2023	AU	Security
Switch! Timor Leste National Event	TL	Foundation Projects
Open Lab: IPv6 Routing	AP	Training
BGP Fundamentals & Attributes Tutorial - Mongolia	MN	Training
Rural ICT Camp 2023	ID	Foundation Engagement
PCTA - Routing Basics and BGP Fundamentals	PH	Training
RPKI/ROV Tutorial and ROA Session Laos	LA	Training
Online Meeting Invitation by the MCIT Department of the Indonesian Government	ID	Government

OCTOBER	Economy	Engagement type
*HKNOG 12.0	HK	NOG
TWIGF 2023	TW	Internet Governance
ICANN 78 (25th AGM)	DE	Coordination
LACNIC 40	BR	Coordination
SANOG 40	LK	Member Outreach, Training, NOG
ARIN 52	US	Coordination
NANOG 89	US	NOG
KISA /KrCERT CC APISC 2023	KR	CERT Engagement
VNIX-NOG 2023	VN	NOG, Training
*KHNOG 5	KH	NOG, Training, Member Outreach, Membership Development
APT-SDN Workshop Sri Lanka	LK	Training
SGNOG - Advance Routing with RPKI Workshop	SG	Training
Visit to Pakistan	PK	Government
PKSIG 2023	PK	Internet Governance
*MNSEC 2023	MN	CERT Engagement
PITA Strategy Forum 2023	FJ	Government, Member Outreach
KDDI Foundation – Internet Routing for Beginners	LA	Training
Switch! National Coordinator office visit	AU	Foundation Projects
Round-Robin Database (RRD) Fundamentals	AP	Training
Open Lab: Routing / OSPF	AP	Training
Transport Layer Security (TLS) and Secure Socket Layer (SSL)	AP	Training
NREN - IPv6 Deployment Workshop	NP	Training
SCITP - IPv6: Introduction, Deployment & Operation for Enterprise Networks	BD	Training
Cyber Safety Pasifika 2023-10	TO	Security
Adaptation Fund Climate Innovation Accelerator Partnership for Development	PH	Foundation Engagement
*DFRWS-APAC 2023	SG	Security
PCTA Regional Connectivity Summit and FiBERfest - BGP Fundamentals	PH	Training
RenasCON	BD	Security
BGP Fundamentals & Attributes Tutorial - Mongolia	MN	Training
Network Monitoring and Packet Analysis Tutorial	BT	Training
BTCIRT National Cybersecurity Conference 2023	BT	Security, Training

NOVEMBER	Economy	Engagement type
RIPE 87	IT	Coordination
Telecoms World Asia 2023	TH	Membership Development, Member Outreach
IETF 118	CZ	Technical
Peering Asia 5.0	KR	Technical
*RISE-Korea	KR	Security
PACNOG 32	TO	NOG, Training
APSIG 2023	PH	Internet Governance
*LANOG 1.0	LA	NOG, Training, Member Outreach, Membership Development
Wuzhen Internet Conference 2023	CN	Government
Fifth Digital Citizen Summit (DCS)	IN	Foundation Engagement
Visit to China	CN	Member Outreach, NIR Engagement
CERT Tonga Engagement	TO	CERT Engagement
40th TWNIC IP OPM	TW	NIR Engagement
M-root renewal set up - San Francisco	US	Other
BGP Multihoming	AP	Training
MCMC - IPv6 Deployment Workshop - Malaysia	MY	Training
IRINN OPM 2023	IN	NIR Engagement
Segment Routing	AP	Training
RPKI/ROV Tutorial and ROA Session Hong Kong & Macau (Delivered in Cantonese)	HK	Training
Internet Routing Tutorial - Philippines (Online)	PH	Training
M-root renewal set up - Seoul	KR	Other
APCERT Conference 2023 & AGM (Virtual)	AP	CERT Engagement
Vietnam Internet Day 2023	VN	Technical
Segment Routing	AP	Training
Open Lab - Routing / IS-IS	AP	Training
Internet Routing Workshop - Mongolia	MN	Training
IRINN IPv6 Configuration and Implementation (Mikrotik)	IN	Training, NIR Engagement
UNESCAP Capacity Building Workshop Pacific IXP	FJ	Government, Member Outreach
PCTA - Routing Basics and BGP Fundamentals	PH	Training
High Performance Computing and Networking Conference 2023	PH	Development
BGP Routing - South-East Asia & East Asia	LA	Training

NOVEMBER	Economy	Engagement type
auDA Future Scenarios Workshop	AU	Internet Governance
7th Community Network Xchange (CNX)	IN	Foundation Projects
RPKI Deployment on VyOS Webinar	AP	Training
BDIGF 2023	BD	Internet Governance

DECEMBER	Economy	Engagement type
Australasian AID Conference 2023	AU	Foundation Engagement
AINTEC 2023	VN	Technical
*bdNOG 17	BD	Training, NOG
M-root set up - Sao Paulo	BR	Other
IDNIC OPM 2023	ID	NIR Engagement
CNNIC OPM 2023	CN	NIR Engagement, Training
Introduction to SDN/OpenFlow Tutorial- Mongolia	MN	Training
AFSIG 2023	AF	Internet Governance
IPv6 Address Planning and Deployment Philippines	PH	Training
Internet Routing Tutorial - Philippines (Online)	PH	Training
IDNIC AMM#5 - IPv6 Advanced Workshop	ID	Training
Afghanistan IGF 2023	AF	Internet Governance, NOG
USAID-Network Security: Firewall Best Practices	PH	Training
Network Monitoring and Management (NMM)	LA	Training
3rd Joint PREGINET and COARE Stakeholders' Meeting	PH	Foundation Engagement, Foundation Projects

APNIC

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