



2022 APNIC Survey Questionnaire

Survey Matters® APNIC 2022 Quantitative Questionnaire Reference: APNIC-101-2201 Questionnaire 2022 V3.0 Final





Welcome to the 2022 APNIC Survey.

This survey is run every two years to gather feedback from Members, Account Holders, and stakeholders about APNIC services, the challenges facing the Internet community, and how APNIC can assist.

The survey helps the APNIC Executive Council (EC) and Secretariat to understand the needs and wishes of the community and to guide decisions on future priorities and services. The APNIC EC places a high degree of importance on this survey as a source of guidance for strategy and planning.

The APNIC EC has commissioned Survey Matters to conduct this survey so you can be sure that your answers will remain confidential. Individual responses will not be identified, and we encourage you to provide honest and objective feedback¹.

To access the 2022 APNIC Survey, please click **"next"** below. You can check your progress from the "% Completed" listed at the top of each page. Depending on your responses, the survey should take around 15 minutes to complete for Members and Account Holders, and much less for other stakeholders in the APNIC community.

Completed responses will be eligible to enter a draw for a chance to win prizes including 3 x \$USD350 gift cards, 2 x Amazon Echos and 2x Apple Airpods.

You can view Survey Matters' <u>terms of use</u> at the bottom of each page of the survey. If you have any questions in relation to this survey, please contact Survey Matters at <u>support@surveymatters.com.au</u> or on +61 3 9452 0101.

Thank you for your participation. Your views are important and APNIC values your feedback.

¹ Please note that free text comments will be provided to APNIC unedited, so if you identify yourself by name or otherwise in these comments these will be visible.





About you

1. Where do you live?

<Economy list selection – all countries>

2. What type of organization do you work for?

Academic/Educational/Research
Banking/Financial
Domain name registry/Registrar
Enterprise/Manufacturing/Retail
Government/Regulator/Municipality
Hardware vendor
Hosting/Data centre
Industrial (construction, mining, oil)
Infrastructure (transport/hospital)
Internet Exchange Point (IXP)
Internet Service Provider (ISP)
Media/Entertainment
NREN/Research network
Non-profit/NGO/Internet community
Software vendor
Telecommunications/Mobile operator
 Other (please specify)

3. What is your role within the organization?

(Please select all that apply)

Academic/Research
Applications Developer
CEO/COO/CFO
СТО/СІО
IT Support
Manager
Network/Systems Planning Engineer/Manager
Network/Systems Operations Engineer/Manager
Product/Peering/Interconnect Engineer/Manager
Project Manager
Sales/Marketing
Software Engineer
Student
Trainer
Other (Please specify)





4. Approximately how many employees are in your organization?

1-10
11-50
51 - 100
101 – 500
501 - 1,000
1,000 - 10,000
10,000+
Don't know

5. What is your organization's relationship with APNIC?

We are an APNIC Member or Account Holder	
We are a member of an NIR in the APNIC region	
Other stakeholder (Please specify)	

6. How many times have you used an APNIC service, contacted or interacted with APNIC in the past two (2) years?

None [Go to Q10]	
1-5 times	
More than 5 times	
Don't know/can't remember	





Participation

7. Over the past two years, which of the following APNIC products, services or initiatives have you used or participated in: *

(Not presented to participants who selected "None" at Q6) (Questions with an * on Q7 and 8 are presented to BOTH Members and Stakeholders) (Select all that apply) (Randomise)

Mem	per Services and Membership Products
	New membership application
	MyAPNIC
	APNIC Helpdesk
	APNIC's EC election
	APNIC Annual Report or Activity Plan
Regist	ration Services, Registry Products, and Policy Development
	IP address or AS number resource application
	IPv4 address transfer (as source or recipient)
	APNIC Whois Database*
	APNIC RDAP service
	APNIC reverse DNS service (as address holder)
	Resource certification (RPKI)
	Routing security (ROA publication)
	APNIC Policy Development Process*
Intern	et Development
	APNIC Conferences, APRICOT or another online APNIC event (for example, NFH (Networking from Home))*
	APNIC Academy training
	Special Interest Groups (SIGs) – online or mailing list*
	Online meeting with an APNIC representative*
	Online presentation by APNIC representative*
	Contacted APNIC with a query (NB: Stakeholder Only)
Inforn	nation Products, Research & Analysis
	APNIC Blog*
	APNIC website*
	REx (Resource Explorer)*
	NetOX (Network Operators' Toolbox)*
	DASH (Dashboard for AS Health)*
	PING Podcast*
	APNIC Labs reports and/or measurement statistics*
	None of these (exclusive) (Go to Q10)

*Asked of Stakeholders as well as Members





8. Thinking about the APNIC products, services or initiatives have you used or participated in, how would you rate your experience?*

(Only the specific services selected above will be presented for each respondent)

1	= Poor		4 = N	eutral		7 = Ex	cellent
New membership application	1	2	3	4	5	6	7
MyAPNIC	1	2	3	4	5	6	7
APNIC Helpdesk	1	2	3	4	5	6	7
APNIC's EC election	1	2	3	4	5	6	7
APNIC Annual Report and/or Activity Plan	1	2	3	4	5	6	7
IP address or AS number resource application	1	2	3	4	5	6	7
IPv4 address transfer (as source or recipient)	1	2	3	4	5	6	7
APNIC Whois Database	1	2	3	4	5	6	7
APNIC RDAP service	1	2	3	4	5	6	7
APNIC reverse DNS service (as address holder)	1	2	3	4	5	6	7
Resource certification (RPKI)	1	2	3	4	5	6	7
Routing security (ROA publication)	1	2	3	4	5	6	7
APNIC Policy Development Process	1	2	3	4	5	6	7
APNIC Conferences, APRICOT or another online APNIC event (eg. NFH)*	1	2	3	4	5	6	7
APNIC Academy training *	1	2	3	4	5	6	7
Special Interest Groups (SIGs) – online or mailing list*	1	2	3	4	5	6	7
Online meeting with an APNIC representative*	1	2	3	4	5	6	7
Online presentation by APNIC representative*	1	2	3	4	5	6	7
Contact with APNIC (Stakeholders only)	1	2	3	4	5	6	7
APNIC Blog*	1	2	3	4	5	6	7
APNIC website*	1	2	3	4	5	6	7
REx (Resource Explorer)*	1	2	3	4	5	6	7
NetOX (Network Operators' Toolbox)*	1	2	3	4	5	6	7
DASH (Dashboard for AS Health)*	1	2	3	4	5	6	7
PING Podcast*	1	2	3	4	5	6	7
APNIC Labs reports and/or measurement statistics*	1	2	3	4	5	6	7

9. Please tell us why some of your experiences were not as good as you expected? (Only asked if selected 1, 2 or 3 in Q7)

10. Are there any new or different products or services APNIC could offer that would provide more value to you or your organization?





11. Thinking about APNIC overall, how would you rate: *

(Not asked if selected None at Q6)

1 = Poor		4 =	Neutr	al	7 =Exc	ellent		
The quality of APNIC products and services	1	2	3	4	5	6	7	Don't know
The value of APNIC products and services	1	2	3	4	5	6	7	Don't know
The value of APNIC membership	1	2	3	4	5	6	7	Don't know
Your experience dealing with APNIC	1	2	3	4	5	6	7	Don't know

Future participation

During the pandemic, all of APNIC face-to-face community events had to be held online. APNIC will continue to provide a full online participation experience for its conferences, but with travel and government restrictions easing across much of the world, APNIC is interested in understanding your thoughts about face-to-face events in the future.

12. When travel restrictions across the region are eased and travel becomes more common, do you think you or your organization will attend face-to-face events as you did before the COVID-19 pandemic?

We will attend more face-to-face events
We will attend the same number of face-to-face events
We will still attend face-to-face events, but not as many
We will attend few or no face-to-face events in future
Don't know

13. What do you think are the MAIN benefits of attending APNIC events in-person?

(Select up to three (3) aspects) (Randomise)

X

Networking with other attendees
The social activities organized
I can concentrate on the sessions with less interruption
Meeting new people
Easier to participate in discussions or sessions
Other (Please specify)
I see no benefits over online participation / I prefer online participation (Exclusive)





Pandemic impacts and business confidence

14. What were the MAIN business-related impacts of the COVID-19 pandemic on you and your organization?

15. During COVID-19, what were the impacts on demand for your services?

Demand decreased significantly	
Demand decreased somewhat	
Demand stayed the same	
Demand increased somewhat	
Demand increased significantly	
Don't know	

16. Thinking again about the issues and impacts of COVID-19, which of the following had the MOST impact on you or your organization?

(Please select up to three (3) impacts)

Supply chain disruptions (inability to acquire supplies or equipment)
Managing people working from home
Attracting or retaining suitably qualified technical employees
Managing customer expectations
Increased costs to provide services
Inability to travel, to attend meetings, conferences, training and so forth
Increased pressure from market competitors
Other (Please specify)

17. Thinking about business continuity and growth of your organization in the next two years, how confident are you about the future?

Not at all confident
Low confidence
Somewhat confident
Very confident
Don't know

18. What is the reason for your level of confidence?





Internet-related challenges

- 19. In your own words, what is the MAIN challenge for you / your organization in providing your Internet-related products, services and activities? *
- 20. Thinking about Internet-related services, products or activities, what are the MAIN STRATEGIC challenges facing your organization? Please rank these in order of priority, where 1 is the greatest challenge. *

(Asked if CEO/COO/CFO, CIO/CTO or Sales/Marketing at Q3) (Please rank at least three (3) challenges in order of their priority to your organization) (Randomise)

Compliance with regulatory requirements
Policymakers and regulators' understanding of the Internet
Managing the unintended consequences of government regulations (domestic and international)
Scaling capacity to meet market demands
Internet security risks
Hiring and/or keeping skilled employees
Keeping pace with new technologies
Introduction of new products and services to improve our business and stay competitive
Cost control of hardware, software, and network investments
Adapting business model to meet market changes
Adapting our organization to meet environmental sustainability goals
Costs of Internet security

21. Now, thinking about Internet-related services, products or activities, what are the MAIN OPERATIONAL challenges facing your organization? Please rank these in order of priority, where 1 is the greatest challenge. *

(Please rank at least three (3) challenges in order of their priority to your organization) (Randomise)

Internet security
Automation of network and systems operations
Deployment of IPv6 in our network
IPv4 scarcity
Content providers are not IPv6 ready
Other suppliers of Internet services are not IPv6 ready
Skills shortages / lack of suitably qualified technical people
Management of Internet traffic, transit and peering, and network capacity
Keeping up with the pace of technology changes (for example, SDN, NFV, blockchain)
Managing cost of systems, network operations, and security
Managing the impact of new Internet technologies (for example, 5G, Internet of Things (IoT)) on existing
infrastructure

22. How can APNIC best assist with these challenges, if at all? *





Internet security

23. Thinking about Internet security, what are the MAIN challenges facing your organization? *

(Select up to three (3) responses only) (Randomise)

DDoS attacks
Routing security
Intrusion and other breaches
Phishing, spam, malware, ransomware
Blacklisting of our IP addresses
Lack of application security
Lack of security for IoT devices/applications
Staff lack awareness of security issues
Lack of clear directives/policies from relevant government authorities
Lack of clear directives/policies from management
Inadequate security policies
Handling abuse and incident reports
Lack of expertise in implementing enterprise-wide security programs
Compliance with national security regulations/requirements
 Other (Please specify)

24. How could APNIC assist with these Internet security challenges?

(Select up to two (2) of the most important) (Randomise)

Collaboration with other technical security organizations to share information and best practice
Engagement with governments in the region about the issues of cybersecurity
Sharing of security insights on the APNIC Blog and website
Increase security-focused training courses (DDoS prevention, security policy development and so forth)
Enhance security content in APNIC conferences
Encourage CERT development and information sharing between CERTs and the APNIC community
Maintain a security threat intelligence sharing service
Provide a general security advice service
Briefings/security training for senior management
APNIC is already doing all it can to assist with these challenges (Exclusive)
None of these (Exclusive)
Other (Please specify)

25. Do you have any other ideas about how APNIC can assist with network and Internet security challenges? *





IPv4 Historical Resources

Recently, the APNIC EC announced changes to APNIC's fee structure, related to historical IPv4 resources that were delegated prior to the establishment of APNIC. The changes are designed to improve the fairness of APNIC's fee structure, and also to help identify unused resources and return them to the free pool of addresses for reallocation.

26. How much do you agree that historical addresses should be subject to the same fees as current resources (i.e. those resources allocated by APNIC)?

Strongly disagree	
Disagree	
Somewhat disagree	
I have no opinion	
Somewhat agree	
Agree	
Strongly agree	
Don't know	

IPv4 scarcity

27. Thinking about the availability of IPv4 addresses, what are the MAIN challenges facing your organization? *

(Select up to two (2) responses only) (Randomise)

	Finding available IPv4 addresses
	The cost of buying IPv4 addresses
	IPv4 address transfer policies
	'Health' of IPv4 addresses being transferred (for example, blacklisting)
	Cost and complexity of NAT/CGN
	Deploying IPv6
	Other (Please specify)
	Don't know (Exclusive)
	It is not an issue for my organization (Go to Q29) (Exclusive)
·	

In the past two years, APNIC has begun recovering unused historical IPv4 addresses to increase the available IPv4 pool for APNIC Members.

28. Aside from this ongoing activity, how else could APNIC help with IPv4 availability?





IPv6

29. Thinking about IPv6, in your opinion, what are the main issues preventing IPv6 deployment across the region?

(Select up to two (2) responses) (Randomise)

Lack of knowledge and expertise on IPv6
Lack of CPE (customer equipment) that supports IPv6
Lack of demand for IPv6 from customers
Lack of IPv6 support in network management/security systems
Content providers do not offer any/enough content on IPv6 in our economy
Lack of business/technical advantages or reasons to adopt IPv6
Lack of support for IPv6 among content providers
Other (Please specify)
None of the above (Exclusive)

30. Which of the following activities do you believe are the most important to encouraging IPv6 adoption in the region?*

Promoting IPv6 to management and/or decision makers
Promoting IPv6 to government and related organizations
Promoting IPv6 to hardware, software and/or content providers
Promoting IPv6 to customers (business and retail)
Sharing deployment case studies and best current practices about IPv6
Providing basic and advanced training on IPv6
Providing technical assistance on IPv6 deployment
Facilitating knowledge sharing between Member organizations on IPv6 deployment experiences
Other (Please provide suggestions)
APNIC should take no action to promote or assist with the deployment of IPv6 (Exclusive)

(Select up to two (2) of the most important) (Randomise)





RPKI, ROA, & ROV

31. Has your organization already deployed or are you ready for deployment of RPKI or ROV?

We have deployed RPKI and ROV (Go to Q34)
We are using RPKI but are not yet performing ROV (Go to Q33)
We have an RPKI/ROV deployment plan (Go to Q33)
We do not have any RPKI/ROV deployment plans (Go to Q33)

32. What is preventing your organization from deploying RKPI/ROV?

nat is preventing your organization from deploying RKPI/ROV?
We do not have the knowledge and expertise
We do not have the time to deploy and maintain it
We are concerned about losing legitimate traffic by using ROV
We do not see the need to adopt RPKI/ROV
The cost of deployment and management of RPKI
We are not aware of other networks deploying RPKI/ROV
Other (Please specify)
Don't know [Exclusive]

APNIC Training

33. Earlier, you indicated you had not attended any APNIC training in the past two years. Can you tell us why you haven't attended any training? *

(Asked if not selected "APNIC Academy Training" at Q7) (Randomise)

I don't have time
I couldn't get management approval
I prefer face-to-face training (which has not been available)
The topics are too basic
The courses are not suited to my role/job
Training is not offered in my local language
APNIC Academy training courses are not certified
I didn't know about the training opportunities
Other (please specify)

34. Are there any other training topics you would like APNIC to make available? *





Support for Internet Development

35. Through the APNIC Foundation, APNIC has been able to expand Internet development activities in the region. In the next two years, what would you say is the MOST important area for APNIC to focus its development activities? Please rank these in order of importance where 1 is the MOST important.

(Randomise)

Infrastructure investment (e.g., IXPs, peering, route servers etc.)				
Community development (For example, NOGs, NRENs etc.)				
Human resource capacity building (For example, educating the next generation of Internet engineers)				
Relationship development (For example, governments, regulators, stakeholders)				

If Rank 1 or 2 = Infrastructure investment:

You ranked infrastructure development as an important area for Internet development. What aspects of infrastructure development support should be the main priority?

(Please select up to two (2) areas) (Randomise)

Neutral IXPs
DNS root servers
DNS TLD servers
CDN caching
Peering
Backbone networks – undersea and/or satellite
 Other (Please specify)

If Rank 1 or 2 = Community development:

You ranked community development as an important area for Internet development. What aspects of community development support should be the main priority?

(Please select up to two (2) areas) (Randomise)

NOGs
NRENs
CERTS
IGFs or Schools of Internet Governance
Other (Please specify)





If Rank 1 or 2 = Human resource capacity building

You ranked human resource capacity building as an important area for Internet development. What aspects of capacity building should be the main priority?

(Please select up to two (2) areas) (Randomise)

Technical training for network engineers
Scholarships/Internships at APNIC
Fellowships supporting the next generation of Internet engineers
Internet subjects/topics offered for final year University engineers/graduates
Improving diversity in Internet-related roles
Funding to improve equal Internet access to all economies in the region
Other (Please specify)

If Rank 1 or 2 = Relationship development:

You ranked relationship development as an important area for Internet development. What aspects of relationship development should be the main priority?

(Please select up to two (2) areas) (Randomise)

Greater investment in government relationships in the region
Education and training for government regulators about the Internet ecosystem
Funding for better access to the Internet for less developed economies in the region
Policy training for governments
Other (Please specify)





Governance

36. Thinking about APNIC, please indicate how much you AGREE with the following: * (Note: Only statement 1 and 3 can be compared to previous surveys)

1 = Strong	gly disa	igree	4 = N	eutral	7 = 5	Strong	ly agree
APNIC is sufficiently open and transparent in its activities	1	2	3	4	5	6	7
APNIC is responsive to the changing needs of its community	1	2	3	4	5	6	7
APNIC is respected in the Internet community	1	2	3	4	5	6	7
APNIC practices environmental sustainability in its service delivery	1	2	3	4	5	6	7

Endorsement

37. Which of these phrases best describes the way you speak about APNIC to others? *

I am critical of APNIC without being asked
I tend to be critical of APNIC if I am asked
l am neutral
I speak well about APNIC if I am asked
I speak highly of APNIC without being asked

Other comments

38. If you have any other comments on APNIC's services, activities or governance, or any suggestions or ideas for the APNIC EC to consider, please provide them here: *





Demographic Information

39. What is your gender? *

Male
Female
Other
Prefer not to say

40. What is your age? *

-		
	18 – 24	
	25 – 34	
	35 – 44	
	45 – 54	
	Over 54	
	Prefer not to say	

41. Do you have a disability that impedes your engagement or participation in APNIC activities? *

Yes	
No (Go Q43)	
Prefer not to say (Go to Q43)	

42. Please suggest any specific adjustments APNIC could make to accommodate your needs: *

(Asked if answered 'Yes" at Q41)

43. How well can you speak, read, and write English?

I am fluent in English
I can understand most English and have English conversations comfortably
I can understand some English and have basic English conversations
1 understand little English and need assistance

44. Have you completed the APNIC Survey in previous years?

No, this is my first time
Yes, I have completed APNIC Surveys in prior years
Can't remember





Prize Draw

Thank you for providing your feedback and participating in the 2022 **APNIC Survey.** There will be three prize draws during the survey, and prizes include:

- 3 x \$USD350 gift cards
- 2 x Amazon Echos
- 2x Apple Airpods

Prize winners will be drawn at random by Survey Matters, using contact information provided here. Please note that your responses to all the other questions in the survey will remain anonymous.

Would you like to go into the prize draw?

Yes	
No (Go to second chance to win!)	

Please enter your details below so we can contact you should you win (Note: your survey responses will remain anonymous and will not be linked to the prize draw):

(Presented if Yes selected at Q40)

Name	
Email Address	
Telephone Number	

Second chance to win!

Encourage others to take the 2022 APNIC Survey using Twitter or Facebook. Simply tweet or post the message below on Twitter or Facebook, and you will automatically be entered in a social media competition to win one of two Visa virtual gift cards valued at \$USD150 each.

Twitter or Facebook message:

I've just completed the 2022 #apnicsurvey – visit survey.apnic.net to provide your thoughts. You could win a prize!

Thank you for taking part. We appreciate your participation and value your feedback.