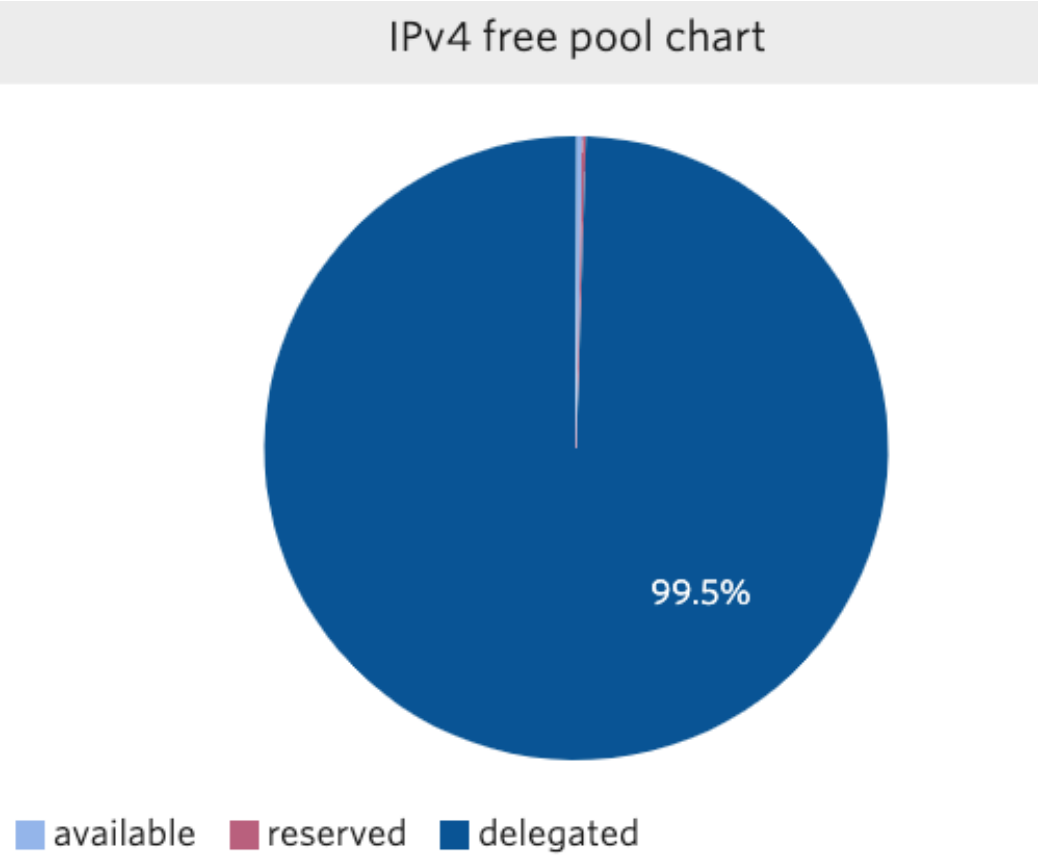
IPv6 Insights

Subha Shamarukh
Internet Resource Analyst
APNIC

IPv4 Depletion

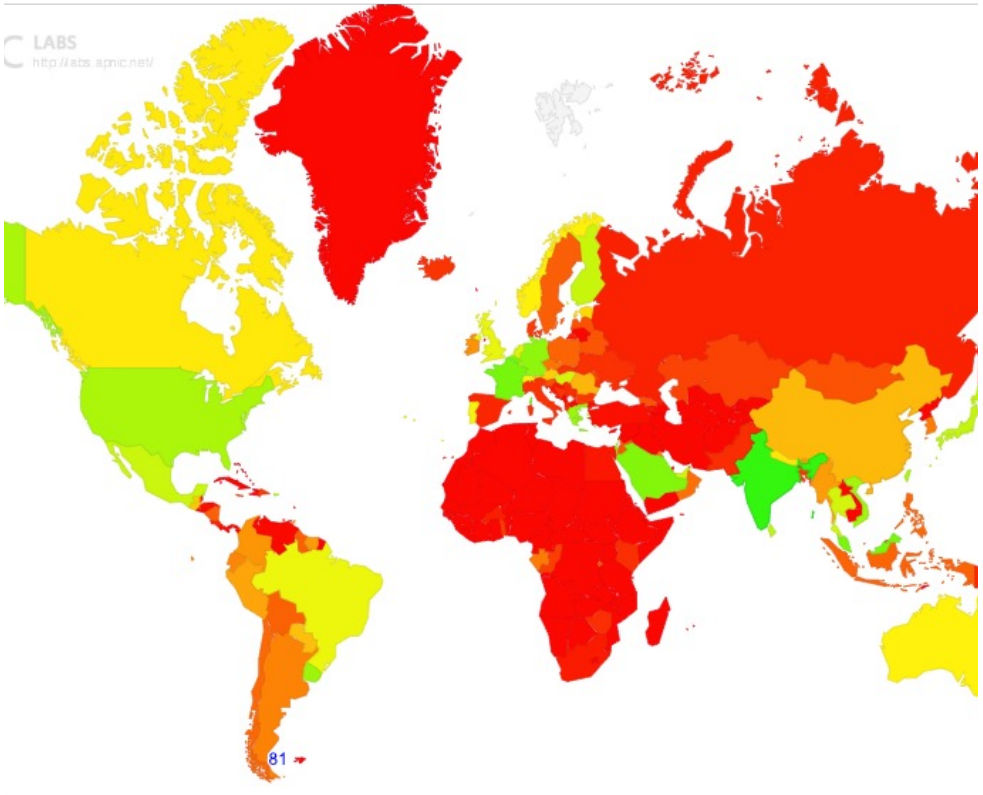


- **Delegated – 99.5%**
- **Reserved – 0.2%**
- **Available – 0.3%**

With IPv4 being close to depletion, the way forward is to transition to IPv6.

IPv6 End User Readiness - APNIC stats

The World is 35% IPv6 Capable



Source: https://stats.labs.apnic.net/ipv6

IPv6 Table - World

18 countries over 50% IPv6 Capable in 2023

Country	IPv6 Capable
India	79.07%
Belgium	66.62%
Saint Barthelemy	65.54%
Malaysia	65.50%
France	65.29%
Saudi Arabia	62.66%
Germany	60.65%
Uruguay	58.56%
Greece	58.53%
Israel	58.48%
Vietnam	57.55%
Taiwan	54.62%
Sri Lanka	53.15%
United States of America	52.91%
Montserrat	51.85%
Japan	51.17%
Finland	50.40%
Puerto Rico	50.29%

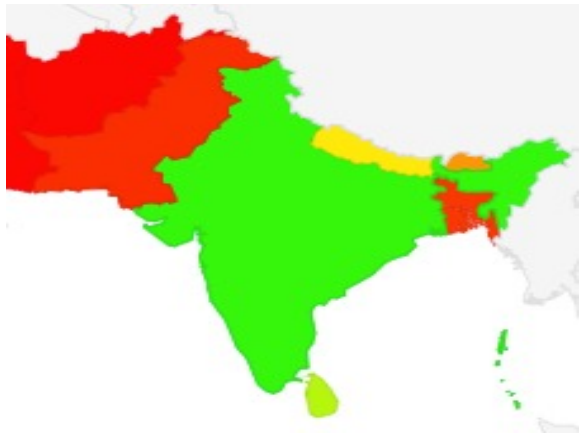
IPv6 End User Readiness by Region

Region	IPv6 Capable
Asia	**40.57%**
Americas	40.44%
Oceania	34.11%
Europe	29.42%

Sub Region	IPv6 Capable
Southern Asia	**64.16%**
Eastern Asia	32.81%
South-Eastern Asia	31.26%
Western Asia	16.89%
Central Asia	5.57%

Closer look at South Asia

South Asia is 64% IPv6 Capable!



Country	IPv6 Capable
India	79.07%
Sri Lanka	53.15%
Nepal	37.95%
Bhutan	24.62%
Bangladesh	9.07%
Pakistan	7.52%
Afghanistan	0.47%
Maldives	0.39%

- India leading with 79%
- 2 out of 8 economies over 50%
- 4 out 8 economies over 20%

Success in India

India is 79% IPv6 Capable

ASN	AS Name	IPv6 Capable
AS55836	RELIANCEJIO-IN Reliance Jio Infocomm Limited	97.66%
AS45609	BHARTI-MOBILITY-AS-AP Bharti Airtel Ltd. AS for GPRS Service	90.97%
AS38266	VIL-AS-AP Vodafone Idea Ltd	83.85%
AS45271	ICLNET-AS-AP Idea Cellular Limited	80.94%
AS24560	AIRTELBROADBAND-AS-AP Bharti Airtel Ltd., Telemedia Services	51.90%

Led by Reliance Jio, Bharti Airtel and Vodaphone Idea

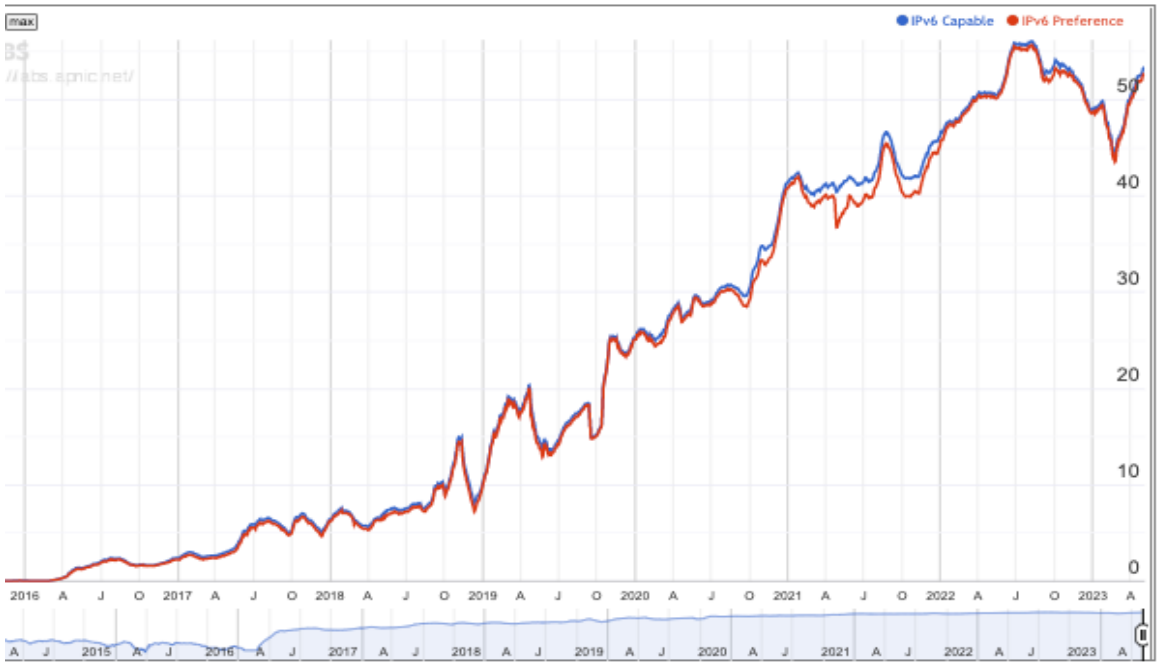
Use of IPv6 for India (IN)

Success in Sri Lanka

Sri Lanka is 53% IPv6 Capable

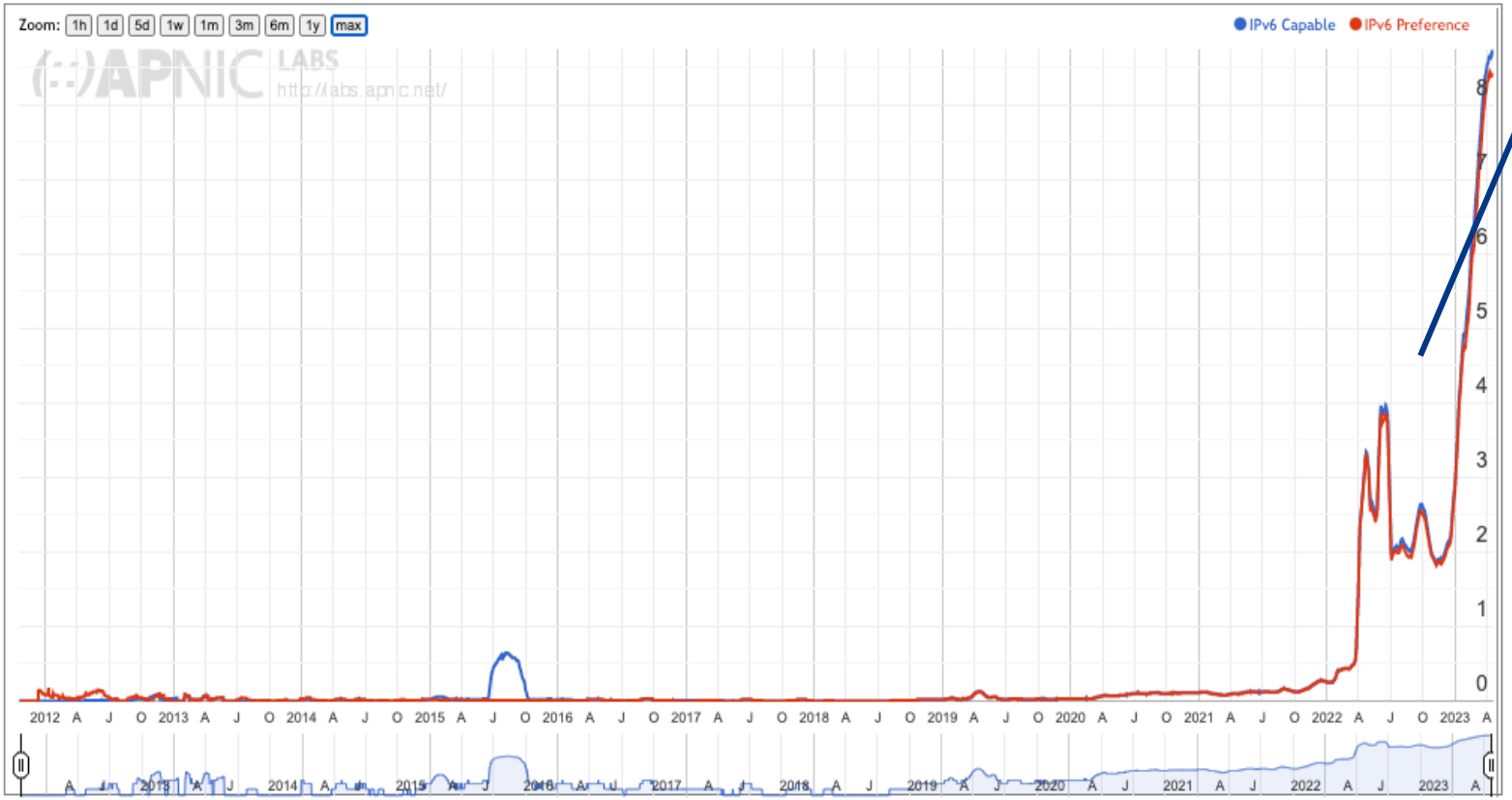
ASN	AS Name	IPv6 Capable
AS18001	DIALOG-AS Dialog Axiata PLC.	76.43%
AS45356	MOBITEL-LK Mobitel Pvt Ltd	52.69%
AS9329	SLTINT-AS-AP Sri Lanka Telecom Internet	37.71%

Led by Dialog Axiata and SLTMobitel



IPv6 adoption in Bangladesh

Use of IPv6 for Bangladesh (BD)



Significant spike in 2022 and 2023

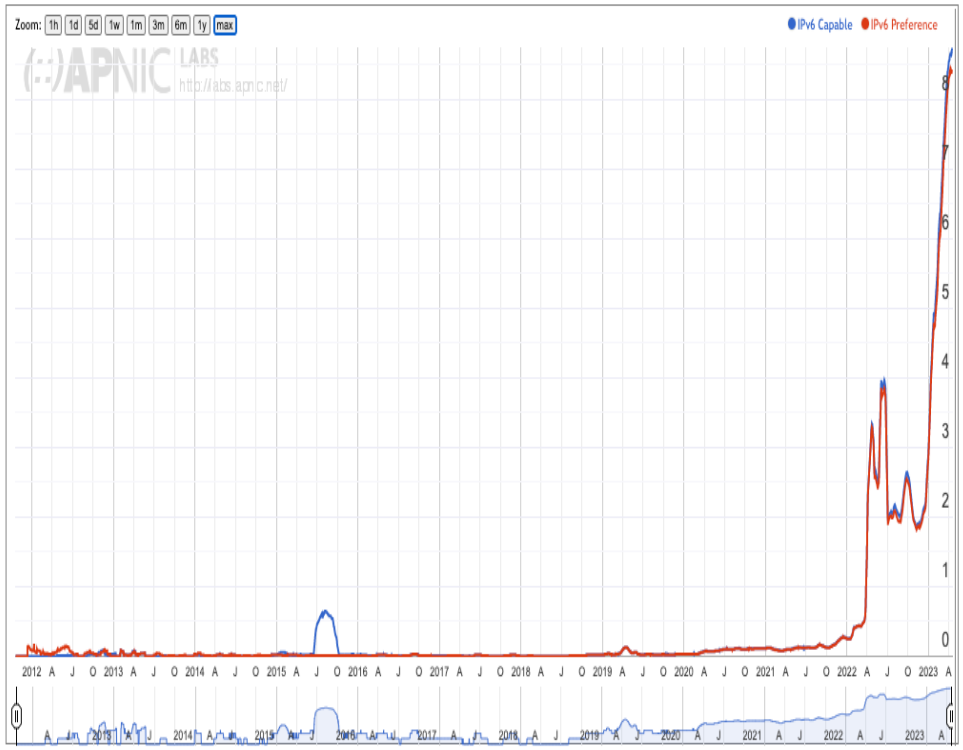
Front-runner in IPv6 adoption in Bangladesh

Telcos paving the way

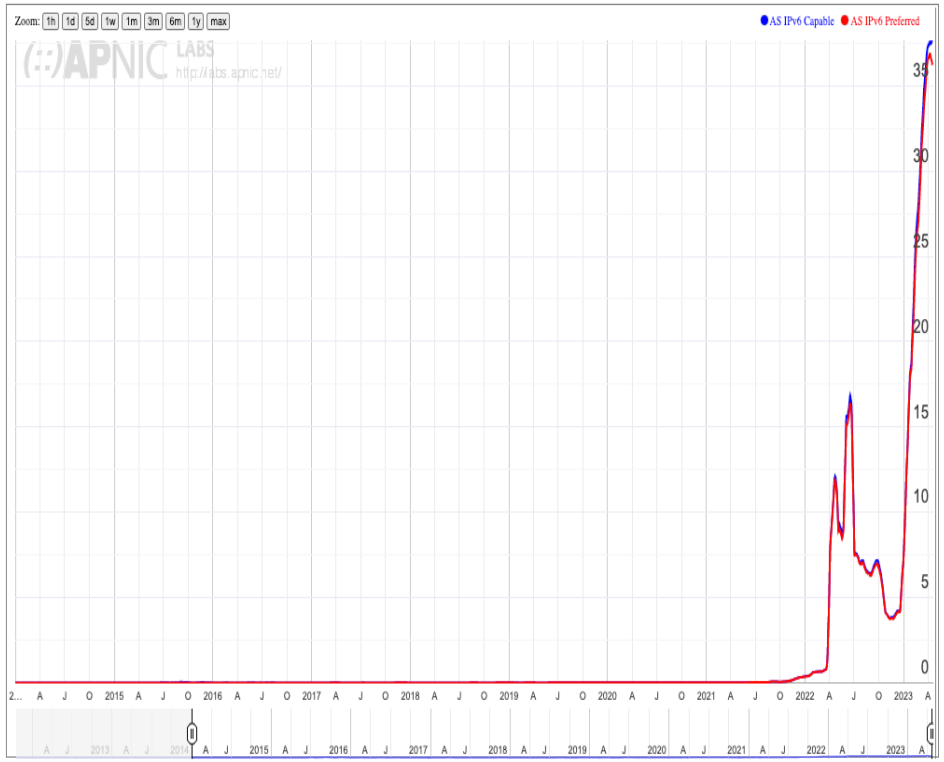
ASN	AS Name	IPv6 Capable
AS24389	GRAMEENPHONE-AS-AP GrameenPhone Ltd.	37.07%
AS24432	AXIATA-ROBI-AS-AP TM International Bangladesh Ltd.Internet service Provider,Gulshan-1,Dhaka-1212	3.12%
AS45245	BANGLALINK-AS Banglalink Digital Communications Ltd	8.06%

IPv6 Deployment BD vs Grameenphone

Bangladesh



Grameenphone



Success stories

If they can do it, so can you!

Our migration strategy was to allow existing users to make graceful switch to IPv6…

Users did not experience any issues, as they could still access the Internet via IPv4..

To help customers migrate from IPv4 to IPv6 in a seamless manner…

You need to consider redundancy/fallback, and ease of network maintenance….

https://www.apnic.net/community/ipv6/deploy-ipv6/#success

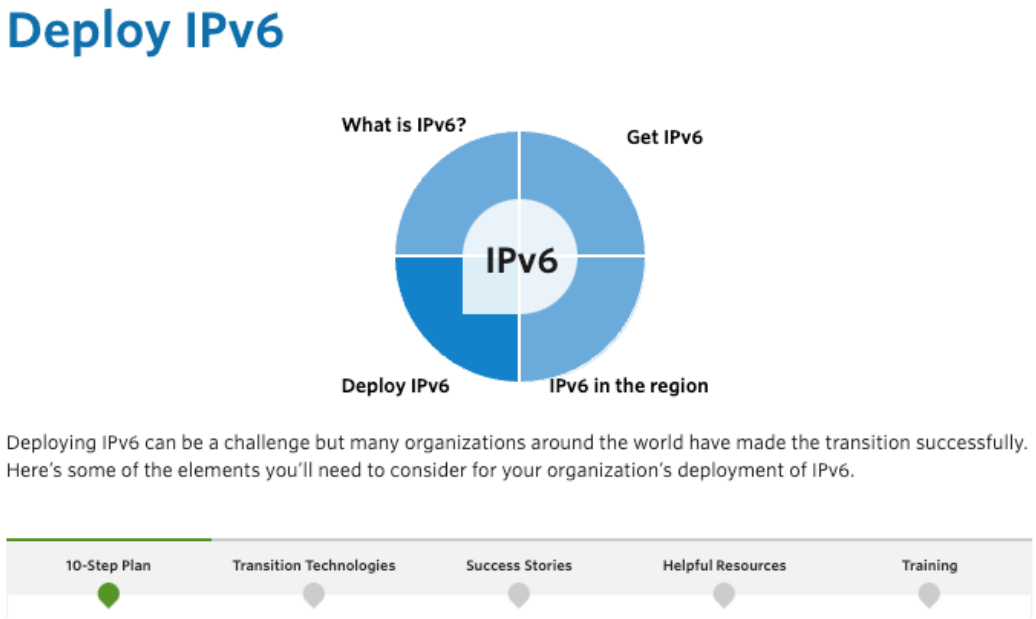
Getting IPv6 is One Click away

- If you are an APNIC member and have IPv4 addresses, you can login to MyAPNIC and just “One Click” to automatically receive your IPv6 addresses.
  - If you have IPv4 allocation, you will receive a /32 IPv6 allocation
  - If you have IPv4 assignment, you will receive a /48 IPv6 assignment
- If you are not an APNIC member, you can submit a membership and resource application via APNIC website
  - https://www.apnic.net/get-ip/get-ip-addresses-asn/

Technical Support

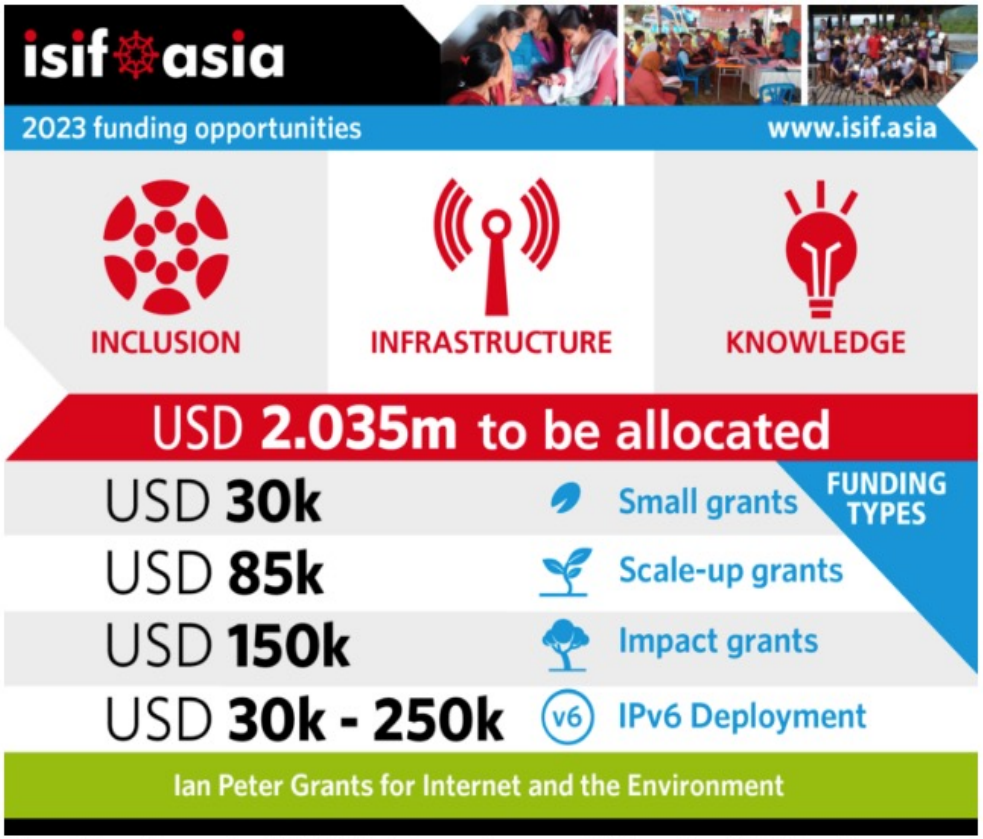
APNIC is ready to provide technical training and technical assistance for IPv6 deployment.

- Operational trainings
  - Direct country assistance (Gov)
  - Standalone workshops
  - Training at NOGs
- Technical Assistance
  - Remote or F2F
- Visit academy.apnic.net for upcoming training and workshops



- Plan, prepare, deploy. Find your 10 step plan here: apnic.net/community/ipv6/

Financial Support



More information on the 2023 ISIF Asia grants are available on the ISIF Asia site.

https://isif.asia/

- APNIC Foundation and the Information Society Innovation Fund (ISIF Asia) provides financial support.
- Recipients of 2022 IPv6 Deployment grants
  - BOOM! Inc., Micronesia: USD 250,000
  - Tonga Communication Corporation, Tonga: USD 250,000
  - National Institute of Technology Karnataka, Surathkal, India: USD 240,000
  - Yayasan Badan Wakaf Universitas Islam Indonesia, Indonesia: USD 60,000
- Applications for 2023 IPv6 Deployment grants are being reviewed.
- Keep an eye on ISIF Asia website for future announcements of grants.

THANK YOU