

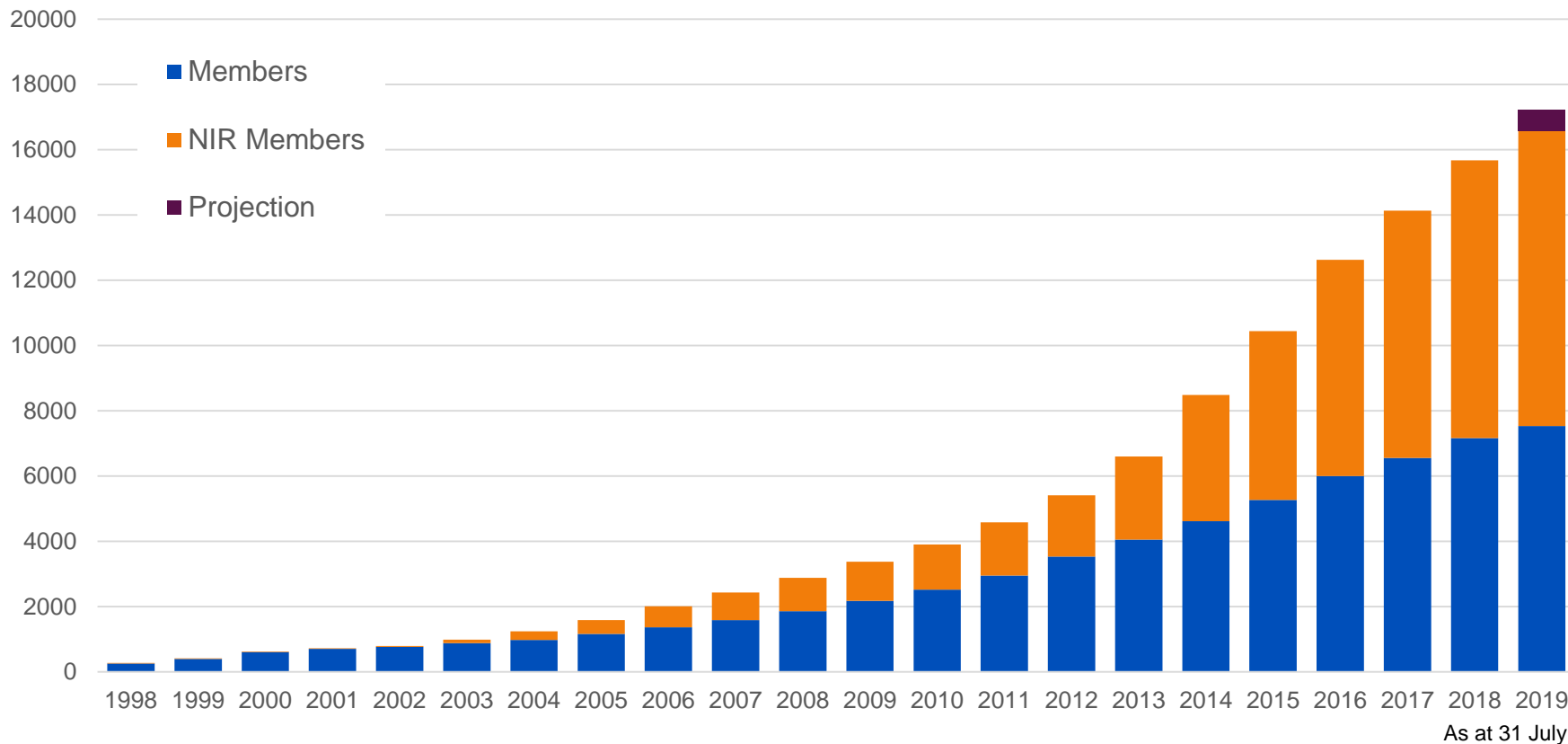
APNIC Update

AP* Retreat
Chiang Mai
8 September 2019

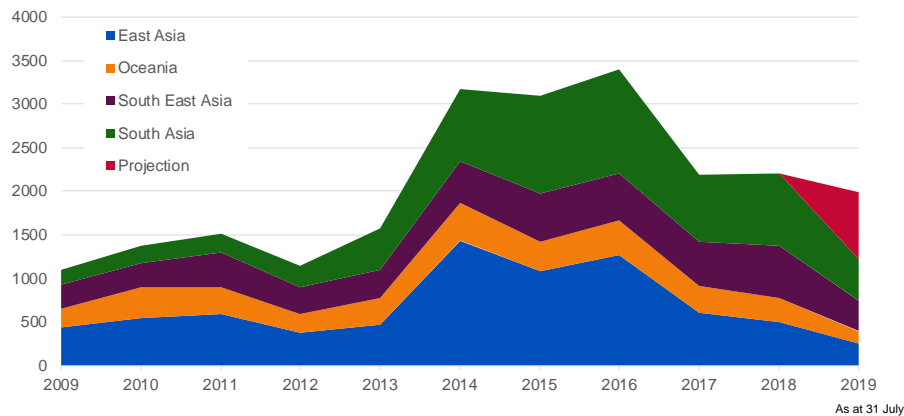


*“A global, open,
stable and secure
Internet that serves
the entire Asia
Pacific community”*

Membership



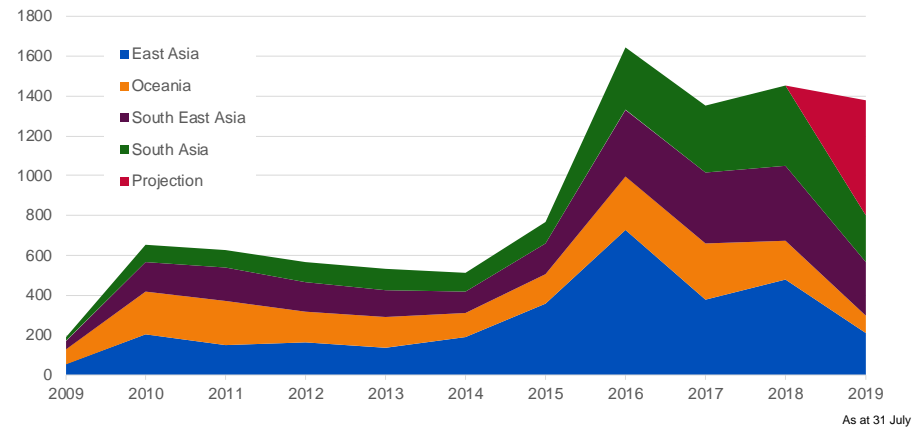
IPv4 delegations



APNIC

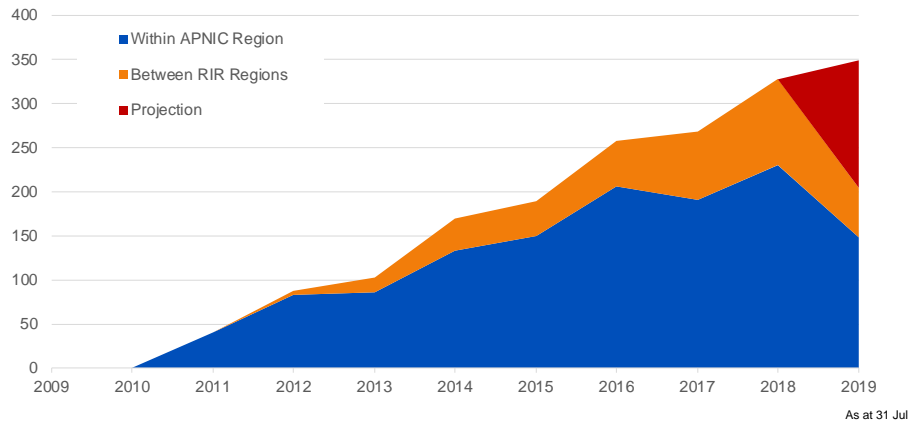


IPv6 delegations



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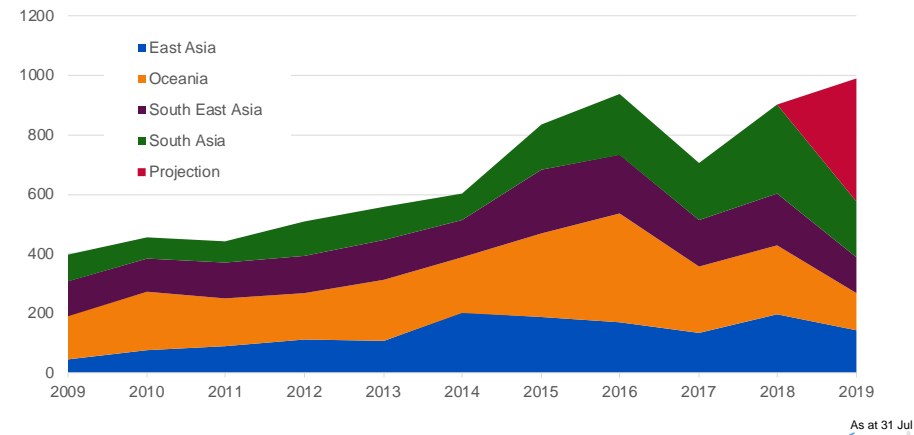
IPv4 transfers



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ASN delegations



APNIC

Registry Products



- RDAP – Registration Data Access Protocol
 - IETF work on RIR profile and Mirroring mechanism
 - Work with NIRs and other RIRs on uniform service
- RPKI – Resource Public Key Infrastructure
 - IETF work on new applications (RTA)
 - Training and technical assistance
 - Promotion of ROA/ROV
 - Major topic for APNIC 48



Reclaiming unused IPv4



- As requested in APNIC Survey 2018
 - Total of nearly 6x/8 allocated but unrouted in APNIC region
- Contacting affected account holders to encourage transfer/return
- New MyAPNIC listing service of available IPv4
 - Encourage transfer if not return

Training



2019 to date	
Face-to-face training	39
Economies	20
Trainees	1,065
Trainee days	2,848
Community Trainers	19
APNIC Academy Users	2,263
Economies	35
Virtual Labs	848
Course completions	409
Trainee hours	1,907
YouTube Training views	25,263

APNIC Academy



APNIC ACADEMY

Online Courses Virtual Labs Live Webinars Video Tutorials My Account

Live Webinars
Introducing live interactive webinars and courses
Register for an upcoming webinar, or view a range of webinar courses.

Upcoming webinars

Packet Analysis for Network Security
Speaker: Warren Finch

This webinar will introduce you to packet analysis, including exposing you to different tools such as sguil, sgul and wireshark, to dissect network packets, related to performing security incident response and investigations.

Webinar starts
Wednesday 31 July 2019 at 1:30pm Australia/Brisbane

9 Days 21 Hours 21 Minutes 3 Seconds
143 Registered attendees

[View details](#) [Registered](#)

Free, 24/7
Available

17+ online
courses

- New webinar platform
 - 5 webinars, 451 participants
- Access to “eduroam”
 - APNIC Members only
- Launching at APNIC 48:
 - IPv6 Fundamentals (5 modules)
 - Support for 8 languages

IPv6 Address Planning
Learn about IPv6 address planning for different network types, including traffic shaping and routing with provided examples.
[VIEW COURSE OUTLINE](#)

IPv6 Overview
Learn the basics of IPv6, including the protocol architecture, addressing models, interface ID, global network prefix and other address formats.
[VIEW COURSE OUTLINE](#)

Network Forensics & Analysis
Learn about network forensics and analysis, including evidence types and sources, essential knowledge and analysis tools.
[VIEW COURSE OUTLINE](#)

BGP Basics
Learn about the routing protocol: Border Gateway Protocol (BGP), including how it is used for all inter-domain routing decisions on the Internet.
[VIEW COURSE OUTLINE](#)

DNS Concepts
Learn the concepts of Domain Name System (DNS), including namespaces, forward and reverse zones and basic security mechanisms.
[VIEW COURSE OUTLINE](#)

DNS Security (Client Perspective)
Learn about DNS security from client perspective through to name resolution, and how to mitigate some of the common DNS security risks.
[VIEW COURSE OUTLINE](#)

Network Security Fundamentals
Learn the fundamentals of network security, including protocols and practices involved in establishing a secure network.
[VIEW COURSE OUTLINE](#)

OSPF Operations
Learn about OSPF, including the Link State Routing Protocol, OSPF Neighbor Discovery Protocol, OSPF Hello and OSPF packets.
[VIEW COURSE OUTLINE](#)

RPKI Deployment
Learn about RPKI deployment from an operator's point of view, including RPKI creation, through to deploying validators.
[VIEW COURSE OUTLINE](#)

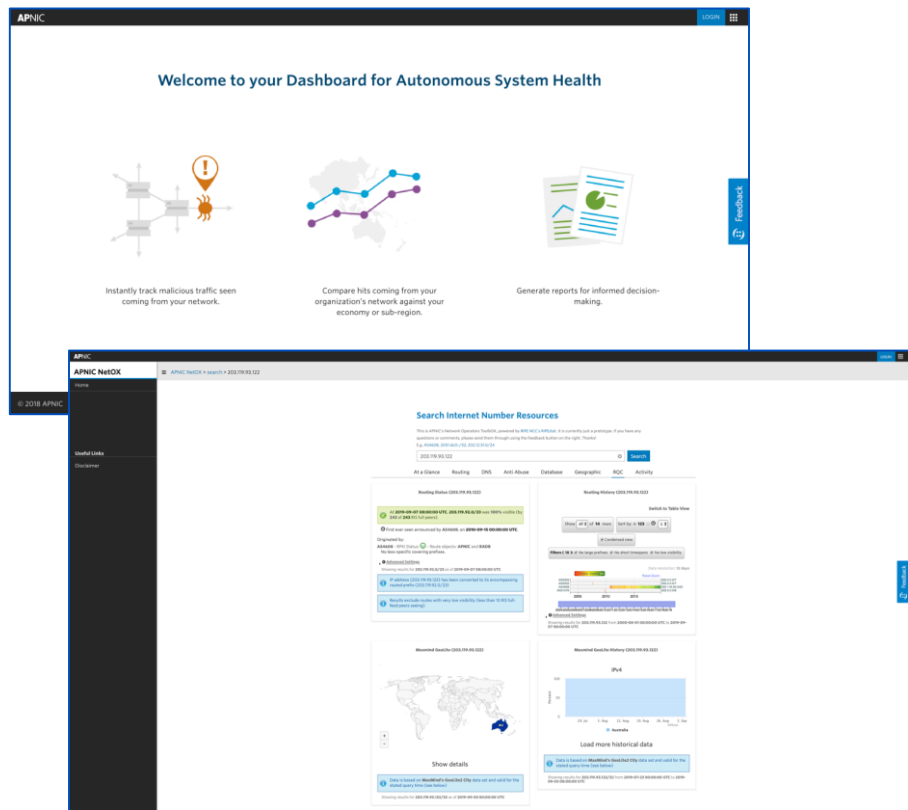
DNSSEC
Learn about the DNS Security Extension (DNSSEC) protocol, including how it is used to protect against data spoofing and other malicious activity.
[VIEW COURSE OUTLINE](#)

IoT Security Challenges
Learn how Internet of Things (IoT) is challenging networks, protocols, and security professionals, as more devices connect to the Internet.
[VIEW COURSE OUTLINE](#)

IPSec VPN Design
Learn step-by-step how to design and configure VPNs, including the protocol architecture and components (IKE, ESP and AH) and functions.
[VIEW COURSE OUTLINE](#)

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Information Products



- Internet Directory update
 - Economy comparisons
 - IPv6 Capability
 - VizAS
- DASH – Dashboard for AS Health
 - Authentication via APNIC SSO
 - Validation and testing
 - Soft launch at APNIC 48 and interviews
- NetOX – a la RIPEstat
 - Including RQC functions
 - User Interviews at APNIC 48

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APNIC Conferences



- APNIC 47 / APRICOT 2019
 - 714 attendees / 57 economies
- APNIC 48
 - ~600 registrations
 - 52 Fellows / 20 economies
 - 27 Professional, 21 Youth, 4 Returning
 - 50:50 male:female
 - NextGen Careers BoF
 - ANP Camp Reunion!

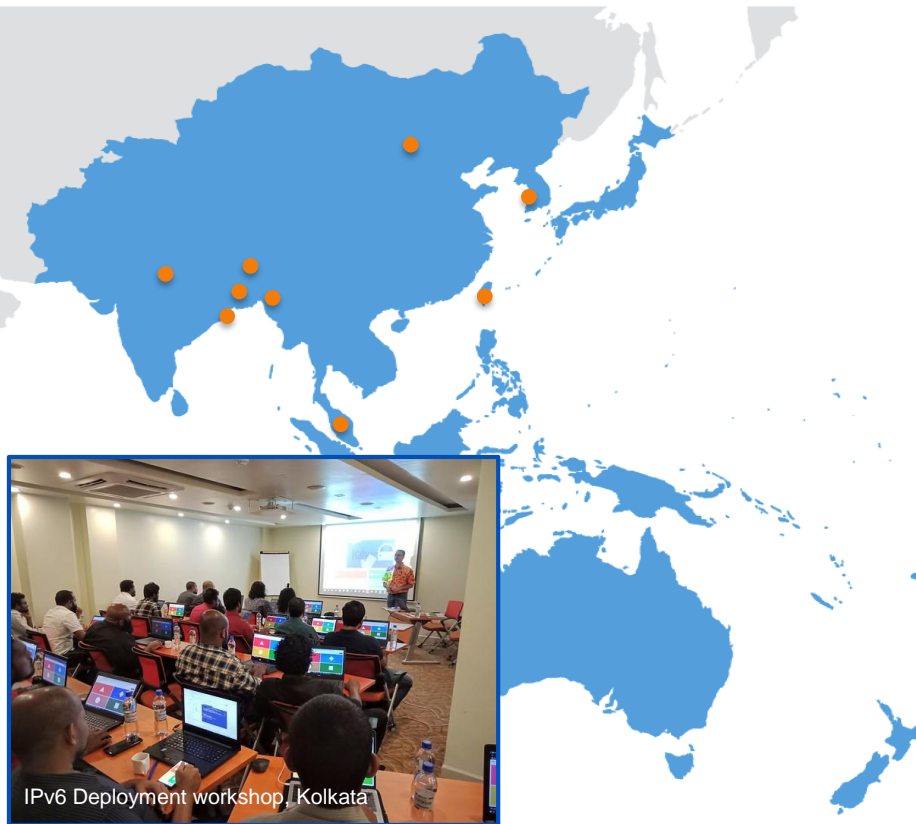
conference.apnic.net

Technical Community



- **NOGs:** Participated in 16 regional NOGs in 2019 (to date)
- **Root servers:** F-root in FJ relocated to IXP; K-root at BTIX
- **R&E:** trainings at APAN 47, 48 with GEANT (TRANSIT-1);
 - Jamie Gillespie is Co-Chair for APAN Security Working Group
 - Continued work with R&E community on training content
 - Supported by funding from Asi@Connect

IPv6



- IPv6 Training
 - 9 face-to-face, 219 trainees
 - New Academy course
- 40 blog posts (to date)
 - IPv6 Week promotion
 - 3 new success stories (29 total)
- IPv6 deployment sessions at APNIC conferences
- APNIC Members holding IPv6 resources 63.05%;
- Regional IPv6 capability now 28.61% (APNIC Labs)

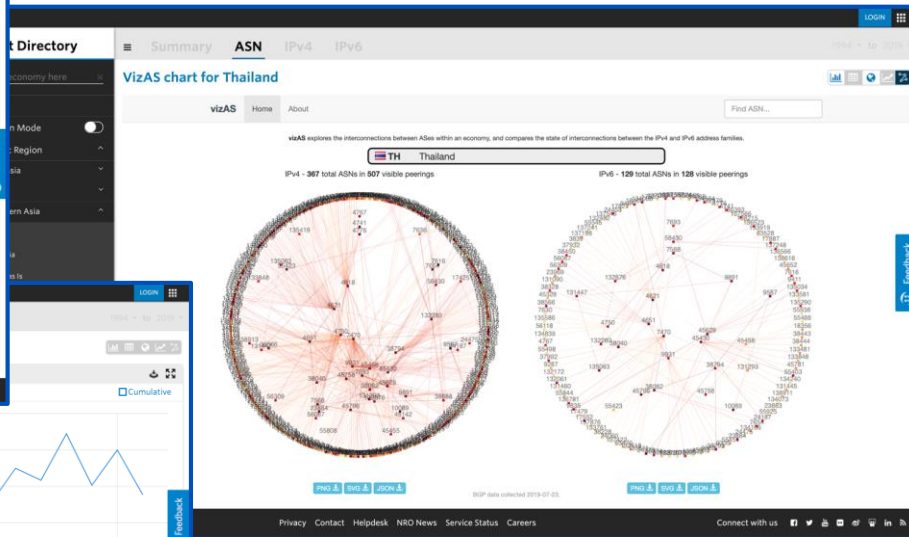
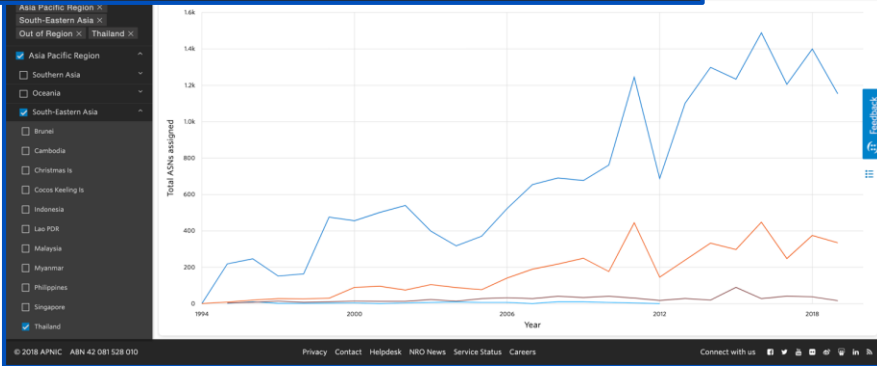
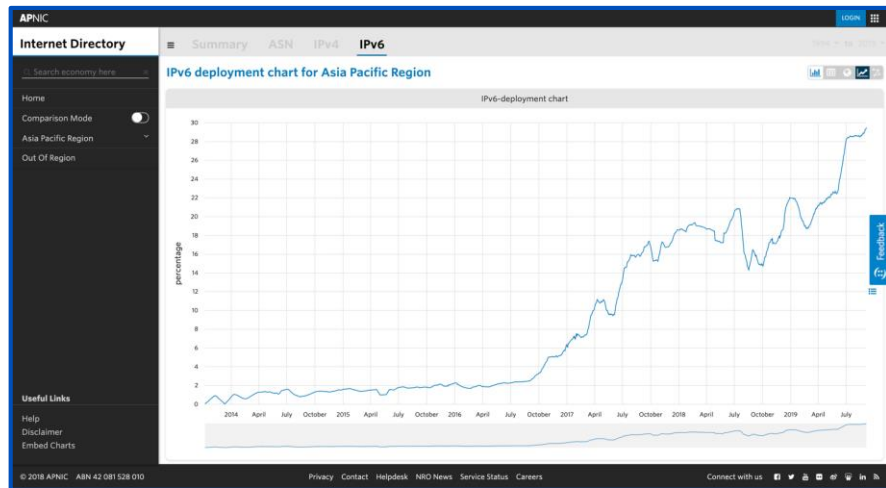
Security



- 15 security engagements including conference presentations and training workshops
 - 8 face-to-face security training sessions
 - CERTs: LaoCERT, CamCERT; APCERT at APRICOT 2019; APISC Annual CERT Workshop; CERT Tonga
 - LEA workshops: Regional Prosecutors Training, ISCR 2019, Cyber Pasifika workshop, Hong Kong Police, Interpol
- FIRST security track at APRICOT 2019 and APNIC 48
- APNIC Community Honeynet project expanded with partners in Bhutan, Bangladesh, Malaysia, Samoa, Tonga and Indonesia
- 65 security-related blog posts (to date)

apnic.net/security

Internet Directory



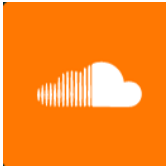
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Behind the scenes



- Full recertification (three-yearly) audit of ISO9001 quality management system in August
- New internal systems
 - ‘Expensify’ for expense management
 - New event registration implemented in Salesforce
 - Elmo for Human Resource management
- Internal integration and SSO with 2FA for SharePoint, NetSuite, Nexonia, Halogen, Salesforce, Zoom, and many others

Stay in Touch!



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