APNIC Update

LACNIC 29
Panama City, Panama
Sofía Silva Berenguer

APNIC

"A global, open, stable and secure Internet that serves the entire Asia Pacific community"

Activities

Serving APNIC Members

Supporting Regional Internet Development

Cooperating with the Global Internet Community

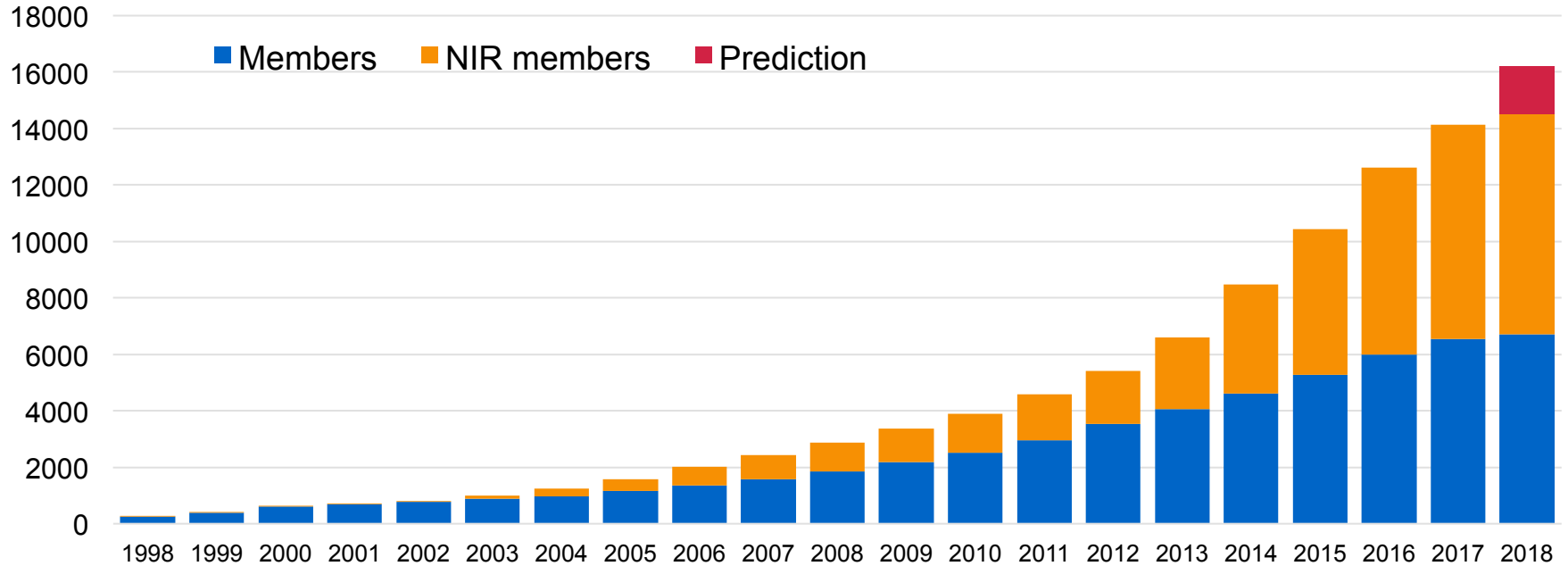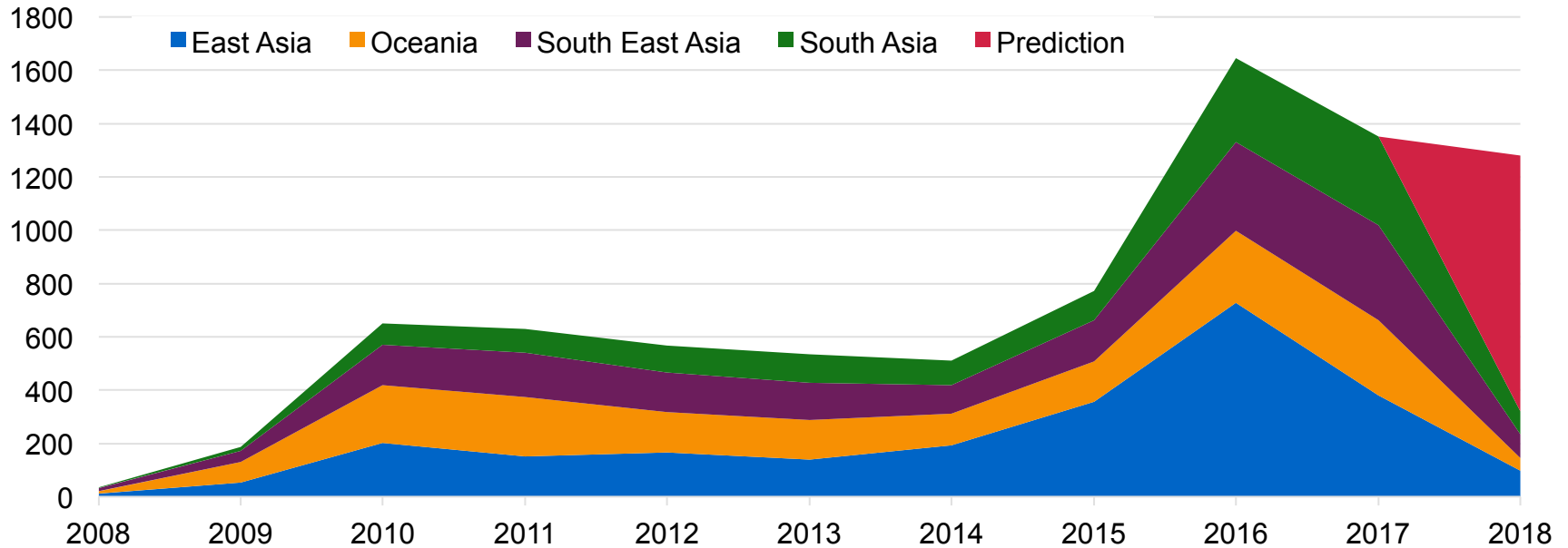# APNIC Activities

[Serving APNIC Members]

[Supporting Regional Internet Development]

[Cooperating with the Global Internet Community]
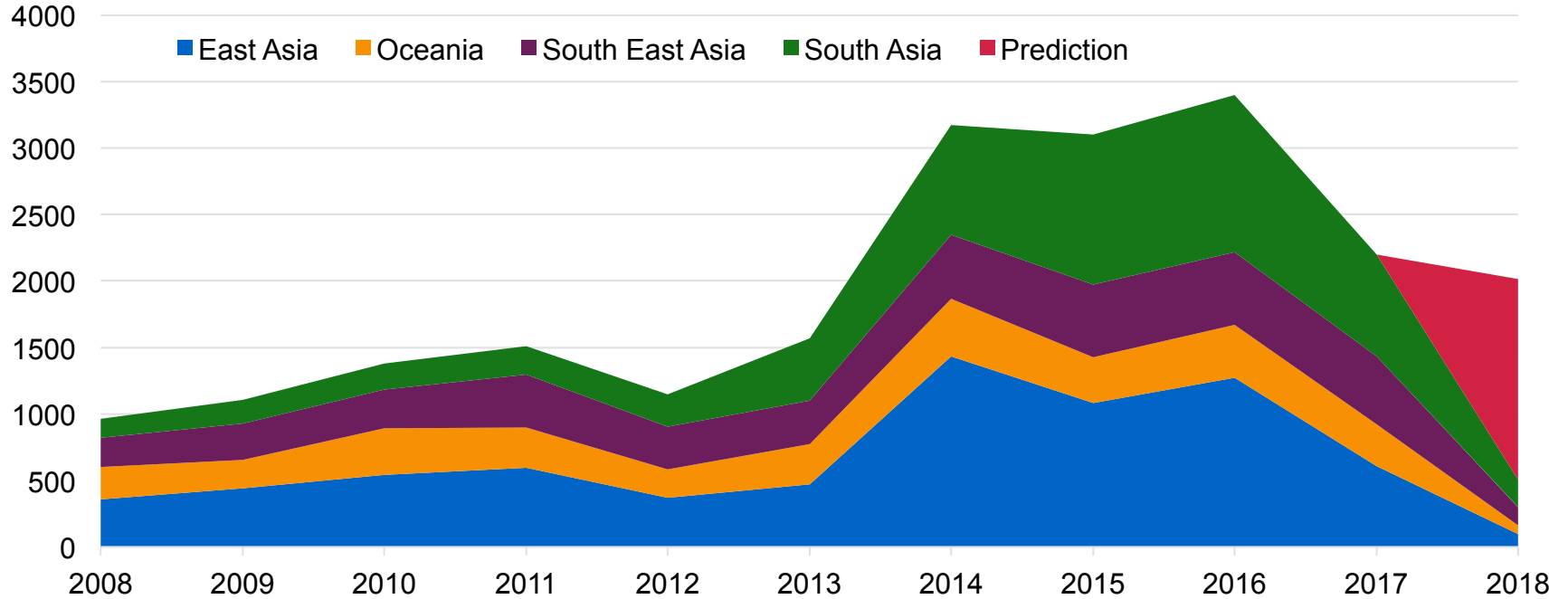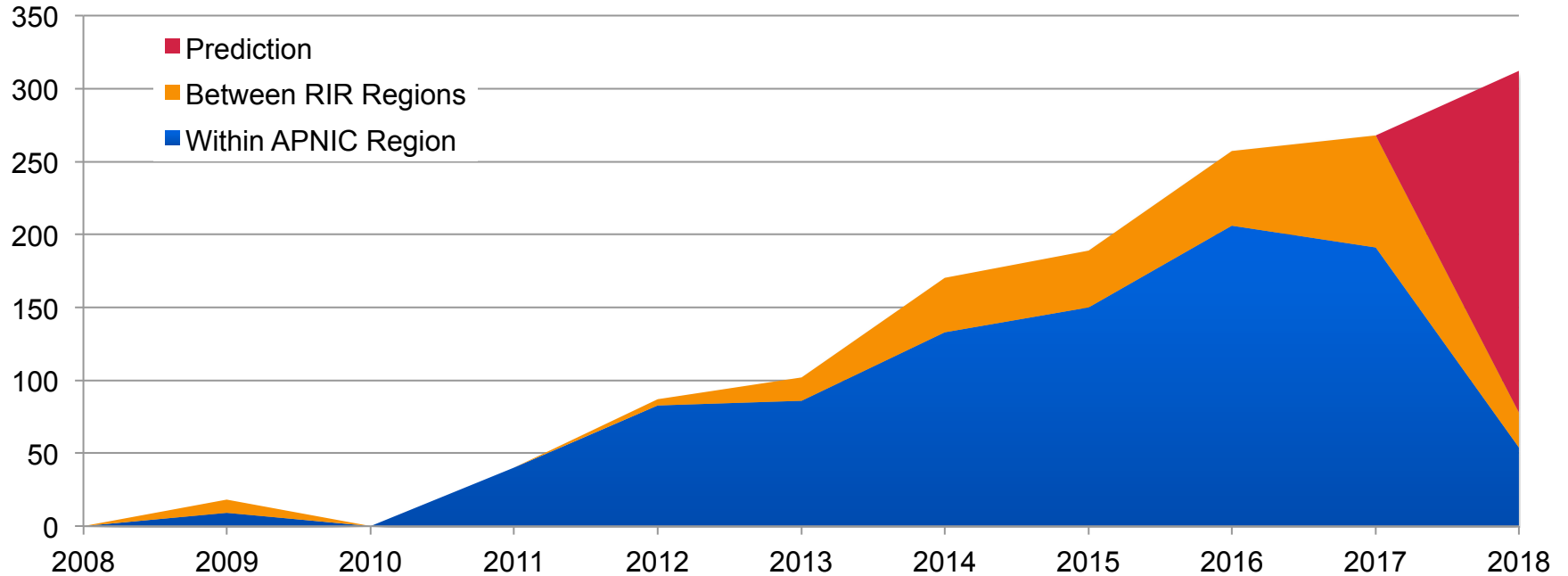
Membership

As at 31 Mar

IPv6 Delegations

IPv4 Delegations

As at 31 Mar

APNIC

IPv4 Transfers

As at 31 Mar

APNIC

Whowas

- Provides historical whois results
- Improved user interface
- IETF draft RDAP extension for batch results

apnic.net/whowas

Resource Certification

- Resource certification extended to historical resource holders
- New user interface deployed in MyAPNIC
- Delta protocol (RFC 8182) work completed for Q1 2018 release
- Ready to ROA
  - NZ, VN, PH, BN, SG, KH, MG, TW
- 'All resources' (0/0) Trust Anchor transition completed

apnic.net/rpki

- RPKI uptime 99.998%
- 23 qps

Resource Certification	To date
Members created certificates	903
Members created ROAs	877
IPv4 under ROAs (/32s)	17,466,312
% allocated IPv4	2.02%
IPv6 under ROAs (/56s)	3,562,983,680
% allocated IPv6	0.39%

Training & TA

Training, Lao PDR

training.apnic.net
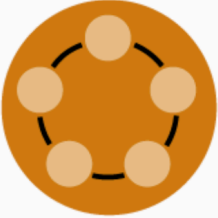
	2018 (to date)
Face-to-face training	16
Locations	12 economies; 16 cities
Trainees	528
Community Trainers	11
eLearning sessions	20
Trainees	82
Training videos	128
Views	555,576
Technical Assistance	1

APNIC Academy

Internet Resource Management — Course

Routing Basics — NEW — Course

Introduction to CyberSecurity — Course

apnic.academy

- Launched April 2017
- Free public access
- 2017: Introduction to CyberSecurity, IRM, Routing
  - Enrolled: 2,212
  - Certified: 427
- Coming:
  - Introduction to IPv6
  - Internet Routing Protocols
  - APNIC Address Policies
  - DNS Concepts

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Policy

Current proposals
- Prop-118: No need policy in APNIC region
- Prop-119: Temporary transfers
- prop-120: Final /8 pool exhaustion plan
- prop-123: Modify 103/8 IPv4 transfer policy

Policy engagement
- Updated web content
- Webinars and NOG briefings
- Translation of summaries and outcomes
- Newcomers' mock policy SIG

apnic.net/policy

APNIC 44 Policy SIG

APNIC 45 Policy SIG

Participate in **APNIC Policy**

▼YOU   ▶COMMUNITY   ▶RESULTS

YOUR VOICE COUNTS
- Everyone can participate – not just your boss
- It doesn't matter how much experience you have
- It's a great way to build your profile and contribute to the Internet
- You can directly impact the way APNIC manages Internet numbers

Get involved in policy discussion!

The first step is to subscribe to the mailing list

SUBSCRIBE NOW!

Community

PacNOG 30, FJ

- **NOGs**: Participated in 24 NOGs (2017); 5 (2018 to date)

- **Root servers**: J-root installed in NP; in progress at PG and FJ

- **MoUs**: Sri Lanka CERT|CC, ISC, KISA, APIA, Netnod

- **IXPs**: Support in PG and FJ

- **Fellowships**: 48 fellows at APNIC 44 (23 female), new Returning Fellows category

- **Sponsorships**: 40 regional events (including 19 NOGs)

Security

Adli Wahid

- Security training: 30 courses (2017); 2 (2018 to date)
- LEA training (2017): 4 events SG (2), FJ and KR (2018): 1 (TW), 1 (HK)
- Other engagements (2017): 37 (2018) 3 APSIG 2017, APrIGF 2017, ASEAN, KISA APISC, CNCERT, INTERPOL SG, APCERT, RISE, ITU Cyberdrill
- FIRST: MoU signed, Events at APRICOT 2017 and APNIC 44
  - Adli Wahid re-elected to FIRST Board
- Security team: Additional Internet Security Specialist
- Security blog posts: 65 (to date)

apnic.net/security

Pacific CERT Development

- Supporting CERT development in the Pacific (FJ, PG, TO, VU, SB)
    - CERT.to: First birthday
    - CERT-PNG: Launched
- Mentoring, training, and technical assistance
- Coordination with APCERT, CERT-Australia, Tonga CERT, ITU and others
- $200K funding via APNIC Foundation (2 years)

CERT establishment workshop, PNG

APNIC FOUNDATION

IPv6

APNIC/ITU IPv6 Workshop 2017, Bangkok

apnic.net/ipv6

- **Training**: 24 face-to-face, 712 trainees (2017); 4 face-to-face; 135 trainees (2018 to date)

- **eLearning**: 25 sessions, 153 trainees (2017); 3 sessions, 6 trainees (2018 to date)

- Regional events: 16 presentations (2017)

- Joint APNIC/ITU IPv6 Infrastructure Security Workshops in TH and BT

- Revamped IPv6 web pages, 20 deployment success stories

- **World IPv6 Day**, 6/6/2017: video, blogs, social media, Member emails

- IPv6 blog posts: 82 (to date)

blog.apnic.net

Views

Views to date

Average: 42,908 / month

Guest Bloggers

150
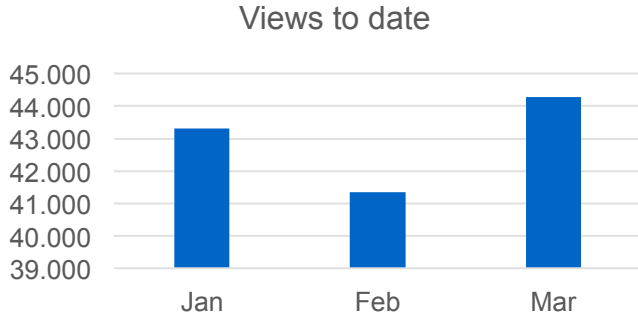
15 Guest Posts in 2018

Economies

Economies covered: 26

Topics

Top 5: IPv6, Security, Training, NOGs, DNS

APNIC Foundation

apnic.foundation

- **First year** of operation: 2017
- **Mission**: To build the APNIC Development Program
- Effectively, the "**fund raising arm**" of APNIC
- Two staff seconded from APNIC: **Duncan Macintosh, Sylvia Cadena**
- Three Board members appointed: **Edward Tian (CN); Sharad Sanghi (IN); Sylvia Sumarlin (ID)**

Activities

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BIND 9.12 development

- Aggressive NSEC caching RFC 8198
  - DNS resolvers discard junk queries instead of sending them to the root
  - Reduces load on root servers – improves resilience, efficiency and scalability
- APNIC sponsored implementation in ISC's BIND 9.12 (open source)
  - Launched and in deployment

Global Research 2017-2018 (to date)

IPv6 capability in the Asia Pacific

Geoff Huston

- Presentations: 39, at IETF, PTC, OARC, RIRs, NOGs…
- Blog posts: 36
- Research topics:
    - DNSSEC KSK rollover
    - IPv6, Extension Headers and IPv6 Fragmentation
    - QUIC and BBR
    - DNS related research with ICANN (contract extended to 2018)
    - DNSSEC and NSEC caching
- Geoff Huston continues on SSAC

DNSSEC KSK Rollover

Ed Lewis, ICANN

- ICANN's rollover of DNSSEC Root Zone KSK (Key Signing Key)
- APNIC supported ICANN by:
  - Identifying higher risk network operators performing DNSSEC validation (Labs)
  - KSK rollover blogs, resources + translations
  - APNIC 44 information session
  - Communication activities to identified operators to facilitate smooth rollover
- ICANN postponed Keyroll to 2018

RIR Collaboration

AFRINIC Staff Exchange – Karen and Simon
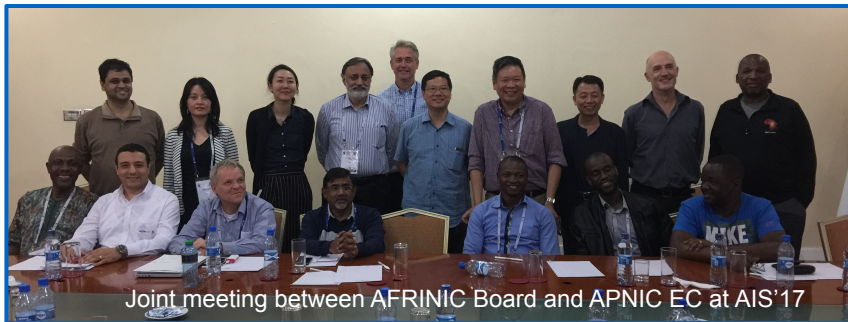
Joint meeting between AFRINIC Board and APNIC EC at AIS'17

- **Joint APNIC-AFRINIC Board meeting** at AFRINIC 26 / AIS'17
- **LACNIC-APNIC IPv6 workshop** at APEC TEL 55
- **World IPv6 Launch** 5th anniversary
- NRO coordination: ECG, RSCG, CCG, finance, HR, legal
    - RSCG meeting in Viet Nam
- Participation at all RIR meetings in 2017
- **Staff exchange (AFRINIC x2)**
- Seed Alliance with AFRINIC and LACNIC

ASO Review

ASO Review
@ APNIC 44

Review of the ICANN Address
Supporting Organization
(ASO)
Final Report

3 August 2017

TOM MACKENZIE
TIMOTHY MCGINNIS
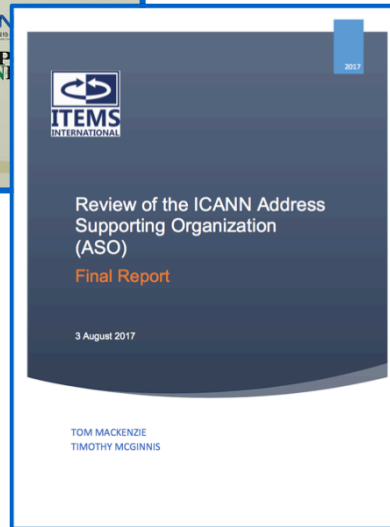
- Independent ASO Review commissioned by NRO EC in 2017

- Report published August 2017: concluded ASO has a continuing purpose in the ICANN structure + 18 recommendations for improvements

- Community consultation held APNIC 44 and 45 to discuss findings

- NRO to launch global consultations in 2018 to discuss future structure of ASO

APNIC consultation #1 (Sep 2017)

- APNIC EC provided input to the community…

- The presence of the numbering community at ICANN is important
  - Currently divided between ASO AC and NRO EC
  - Current arrangements are ambiguous and a source of confusion and misunderstandings

- In response to the second independent ASO Review, the APNIC-EC proposes to consider **non-status-quo** options

- ASO Review working group was established

APNIC consultation #2 (Feb 2018)

- Strawman proposal
  - From WG chairs, after discussion on the mailing list
  - Based on Option 3 (two-house model) of the ASO Review report and discussions of the ASO Review Working Group\

- Strong support to a two house ASO structure
  - Policy Council and Registry Council replace ASO AC and NRO EC
  - But no consensus on the number of members or the selection mechanism.

- Members of the APNIC community continue to participate in the wg-aso-review mailing list.

Strawman Proposal

ASO-AC

NRO-EC
ASO = NRO

?

ASO

ASO-AC   NRO-EC

10+5 members   5 members

?

ASO **New**

Policy Council	Registry Council
10* members	10* members
Global Policies	Operational Matters

Coming Soon

Take the
APNIC Survey 2018

YOU COULD WIN...

We want to hear from you about APNIC's services and the needs of the Community

Microsoft Surface Pro 4
An Apple Watch Sport
Virtual gift cards

Opens 28 May

Next Conference

#apnic46

NOUMEA, NEW CALEDONIA
6 – 13 September 2018

conference.apnic.net/46

Call for Papers open now

https://conference.apnic.net/46/program/call-for-papers

Later…

APRICOT 2019 / APNIC 47
Daejeon, Republic of Korea
18 to 28 February 2019

APNIC 48
Chang Mai, Thailand
5 to 12 September 2019

Stay in Touch!

[blog.apnic.net

apnic.net/social]

Thanks!