



APIX Update at AP* Retreat

17 Feb 2020

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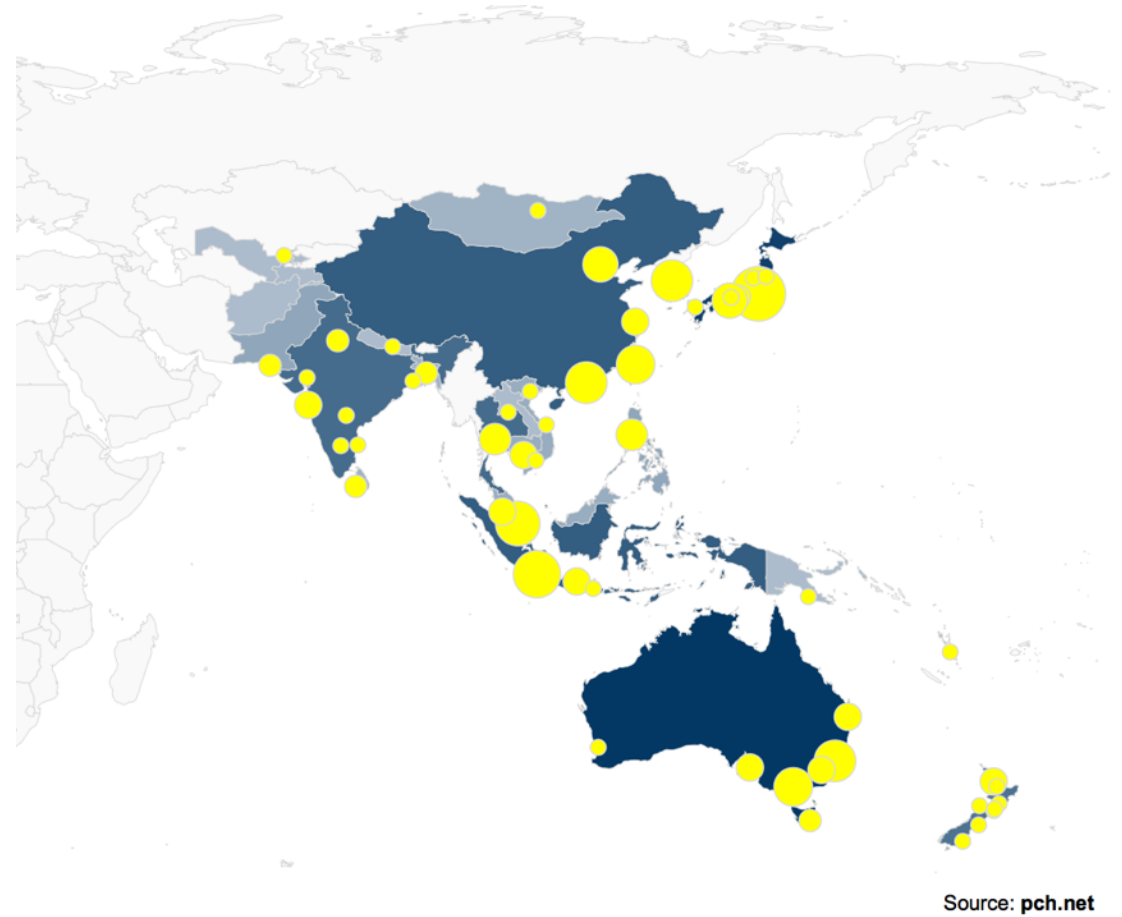
Chair, APIX association

What is APIX?

- Asia-Pacific Internet Exchange
 - An **association** of **Internet Exchange Providers** in Asia-Pacific region
 - Started in 2010
 - a member of IX Foundation

Internet Exchanges in Asia Pacific

- You know IX very well 😊
 - where ISPs and ICPs connect and exchange their traffic, in order to reduce latency and improve quality between them, and reduce the cost
- According to PCH directory, in APAC
 - 25 countries/economies
 - 169 internet exchange points



Why an association for IXP in Asia Pacific?

- Doing the **same business** in each country/economy
- Having **almost the same kind of issues**
- Worth creating an IXP community to **share information and experiences** about technical, operational, and business **issues** and its **solutions** regarding **Internet Exchange**

APIX Members

- **31 IXPs, from 18 countries and economies**
 - Australia, Bangladesh, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, Myanmar, Nepal, New Zealand, Philippine, Singapore, Taiwan, Thailand, Vietnam



APIX members: 31

AMR-IX (IN)

AMS-IX Hong Kong (HK)

BBIX (HK/JP/SG/TH/EU/US)

BDIX (BD)

BKNIX (TH)

CHN-IX (CN)

CNX (KH)

Dix-ie (JP)

Equinix AP (AU/HK/JP/SG)

HKIX (HK)

IIX (ID)

IX Australia (AU)

JBIX (MY) -> DE-CIX MY?

JPIX (JP)

JPNAP (JP)

KINX (KR)

Megaport-IX (AU/HK/SG)

MM-IX (MM)

MumbailX (IN)

MYIX (MY)

NIXI (IN)

NPIX (NP)

NZIX (NZ)

PhOpenIX (PH)

Ryukyu-IX (JP)

SGIX (SG)

SOX (SG)

TH-IX (TH)

TPIX (TW)

TWIX (TW)

VNIX (VN)

APIX Steering Committee (as of now)

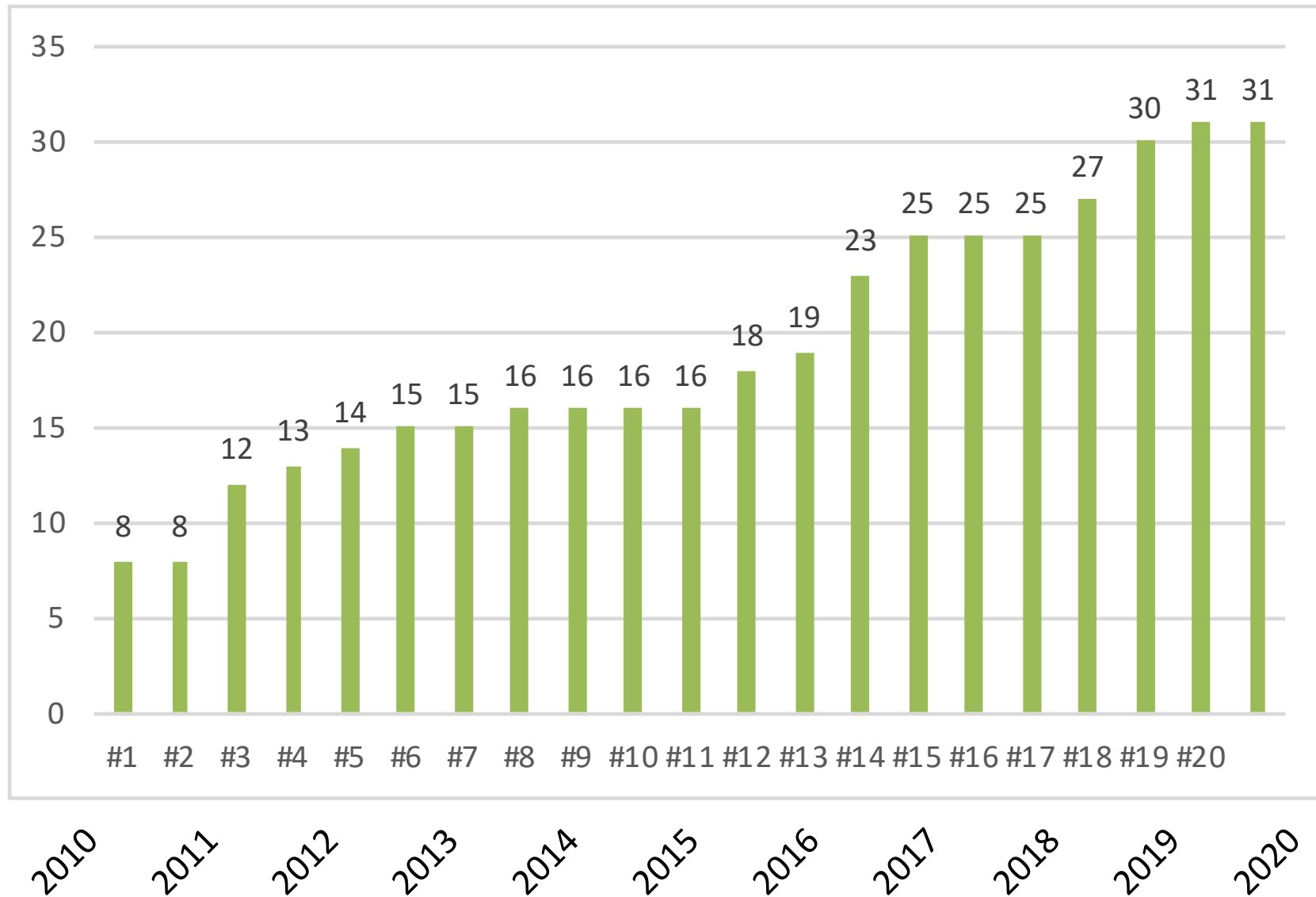
- SC members
 - Chairperson: Katsuyasu Toyama -- JPNAP (JP)
 - Secretary: Vijayakumar Sethuraman -- Equinix (AP)
 - Treasurer: Vivin Varghese – MumbaiIX (IN)
 - Meeting Arrangement: Rupesh Shrestha -- NPIX (NP)
 - Website Management: Tom Paseka -- NZIX (NZ)

End of term of office: Katsuyasu Toyama and Vijayakumar Sethuraman

Meeting history

	Date	Place	Attendees	IXPs in AP
21st	Monday, 17 February 2020	Melbourne (Australia)		
20th	Monday, 9 September 2019	Chiang Mai (Thailand)		
19th	Sunday, 24 February 2019	Daejon (South Korea)		
18th	Monday, 10 September 2018	Noumea (New Caledonia)		
17th	Saturday, 24 February 2018	Kathmandu (Nepal)	59 people (49 from IXPs)	20 IXPs in AP
16th	Monday 11 September 2017	Taichung (Taiwan)	?	?
15th	Sunday, 26 February, 2017	Ho-Chi-Minh City (Vietnam)	54 people (54 from IXPs)	20 IXPs in AP
14th	Sunday, 2 Oct. 2016	Colombo (Sri Lanka)	28 people (26 from IXPs)	13 IXPs in AP (4 remotely)
13th	Sunday, 21 Feb. 2016	Auckland (New Zealand)	50 people (45 from IXPs)	14 IXPs in AP (1 remotely)
12th	Sunday, 6 Sep. 2015	Jakarta (Indonesia)	20 people (18 from IXPs)	11 IXPs in AP
11 th	Sunday, 1 Mar. 2015	Fukuoka (Japan)	61 people (38 from IXPs)	14 IXPs in AP
10 th	Sunday, 14 Sep. 2014	Brisbane (Australia)	32 people (26 from IXPs)	11 IXPs in AP(2 remotely)
9th	Sunday, 23 Feb. 2014	Petaling Jaya (Malaysia)	~50 people	14 IXPs in AP
8th	Sunday, 25 Aug. 2013	Xi'an (China)	26 people (19 from IXPs)	13 IXPs in AP
7th	Sunday, 24 Feb. 2013	Singapore (Singapore)	40 people (36 from IXPs)	14 IXPs in AP
6th	Wednesday, 29 Aug. 2012	Phnom Penh (Cambodia)	26 people (24 from IXPs)	12 IXPs in AP (1 remotely)
5th	Sunday, 26 Feb. 2012	New Delhi (India)	27 people (22 from IXPs)	11 IXPs in AP (2 remotely)
4th	Tuesday, 30 Aug. 2011	Busan (Korea)	23 people (21 from IXPs)	12 IXPs in AP
3rd	Sunday, 20 Feb. 2011	Hong Kong (Hong Kong)	31 people (23 from IXPs)	10 IXPs in AP
2nd	Monday, 23 Aug. 2010	Gold Coast (Australia)	11 people (9 from IXPs)	7 IXPs in AP
1st	Monday, 1 Mar. 2010	Kuala Lumpur (Malaysia)	15 people (14 from IXPs)	7 IXPs in AP
(Pre)	Tuesday, 25 Aug. 2009	Beijing (China)	14 people (8 from IXPs)	

Number of APIX Members



The 32nd member

- JKT-IX (Jakarta-IX), Indonesia

What was discussed and achieved by APIX?

- Lectures and discussions
 - To share knowledge/experience, and support IXP operations
 - IXP network equipment and protocols
 - PeeringDB, IXPDB
 - IXP Manager
 - Route server software: BIRD, GoBGP
 - Route filtering and IRR, RPKI
 - MANRS project
 - Comparison among countries
 - regulations, cultures
 - IX Users perspectives
 - requests to IXPs (Goolge, HE, etc.)
- Contribution to peering community
 - Open and Neutral peering forum: Peering Asia
- Administration
 - Membership criteria
 - APIX Bylaws
 - Membership fee

Outstanding issues

- Increasing APIX members (continuously)
 - Currently 32, two IXPs have an interest to be members
- Encouraging information/experiences sharing between APIX members
 - APIX Web Working Group was established in Feb 2019
 - New APIX web is prepared on AWS
- Domain names transfer (apix.asia and peeringasia.com)
 - apix.asia is now on the way to move to a new registrar (crazydomain.sg)
- Membership fee collection
 - bylaws modification (to be fixed at this meeting)
 - The members which have not paid membership fee will lose some rights regarding nomination and contest
- legal entity
 - APIX (and Peering Asia)

What's next?

- 10 years (one decade) have passed since APIX established
- It's time to look back the history and start to make a new future of APIX

Any questions?



Always appreciate for the supports by APNIC!