

# **APIX update**

**Katsuyasu Toyama**

interim Chair

**APIX**

# What is APIX?

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- “Asia-Pacific Internet Exchange”
  - An association of **Internet Exchange Providers** in Asia-Pacific region.
  - To share information about technical, operational, and business issues and solutions regarding Internet Exchange

# Background

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- Internet Exchanges have become very important infrastructure for the Internet.
- Many Internet Exchanges in Asia-Pacific region.
- But we did not have a community of Internet Exchange Providers in **Asia-Pacific**, to share information regarding IX technology, operation, business, and so on.
  - comparing to “Euro-ix” in Europe

# Scope

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## Topics discussed in APIX meetings

- tools
- standardization
- peering issues
- education
- Research and Development
- exchange point architecture
- technologies for internet exchanges
- operational issues
- requests to vendors
- traffic
  - trend, analysis, projection, and so on

# Participating IXPs

- 14 IXPs in Asia-Pacific region are active members

- BD: BDIX(Dhaka)
- HK: HKIX(Hong Kong)
- JP: JPNAP, JPIX, BBIX, Dix-ie
- KR: KINX(Seoul)
- IN: NIXI
- MY: MyIX
- NP: NP-IX(Katmandu)
- SG: SGIX(Singapore), SOX(Singapore)
- VN: VNIX(Hanoi/HCMC)
- AP: Equinix (Hong Kong, Singapore, Tokyo)



\* MyIX is a newcomer

# **Organization and its operation**

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- Current (Interim) Chair and Co-chairs
  - Katsuyasu Toyama (JPNAP)
  - Raphael Ho (Equinix)
  - Che-Hoo Cheng (HKIX)
  - Gaurab Raj Upadhaya (NP-IX)
  - Akira Kato (Dix-ie)

# Meeting history

#	Date	Place	Attendees	IXPs in AP
5th	26 Feb. 2012 Sunday	New Delhi (India)	27 people (22 from IXPs)	11 IXPs in AP (2 remotely)
4th	30 Aug. 2011 Tuesday	Busan (Korea)	23 people (21 from IXPs)	12 IXPs in AP
3rd	20 Feb. 2011 Sunday	Hong Kong (Hong Kong)	31 people (23 from IXPs)	10 IXPs in AP
2nd	23 Aug. 2010 Monday	Gold Coast (Australia)	11 people (9 from IXPs)	7 IXPs in AP
1st	1 Mar. 2010 Monday	Kuala Lumpur (Malaysia)	15 people (14 from IXPs)	7 IXPs in AP
Preliminary	25 Aug. 2009 Tuesday	Beijing (China)	14 people (8 from IXPs)	

**Attendees are limited only to IXP people.**

**Supporters, who contribute to APIX activities, may be invited.**

# 5<sup>th</sup> Meeting

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- Participating IXPs
- **Asia-Pacific**
  - BD: BDIX
  - HK: **HKIX**
  - JP: **BBIX**, **JPIX**, **JPNAP**, **Dix-ie**
  - KR: KINX
  - IN: **NIXI**
  - MY: **MyIX**
  - NP: **NP-IX**
  - SG: **SGIX**, SOX
  - VN: **VNIX**
  - AP: **Equinix**
- Other regions
- **Europe**
  - DE: DE-CIX
  - NL: AMS-IX
  - SE: Netnod
  - UK: LONAP
- **Latin America**
  - BR: PTT Metro
- **IXP associations**
  - Euro-IX
  - LAC-IX

Red names denote participated IXP,  
remotely participated IXPs are denoted  
with underline



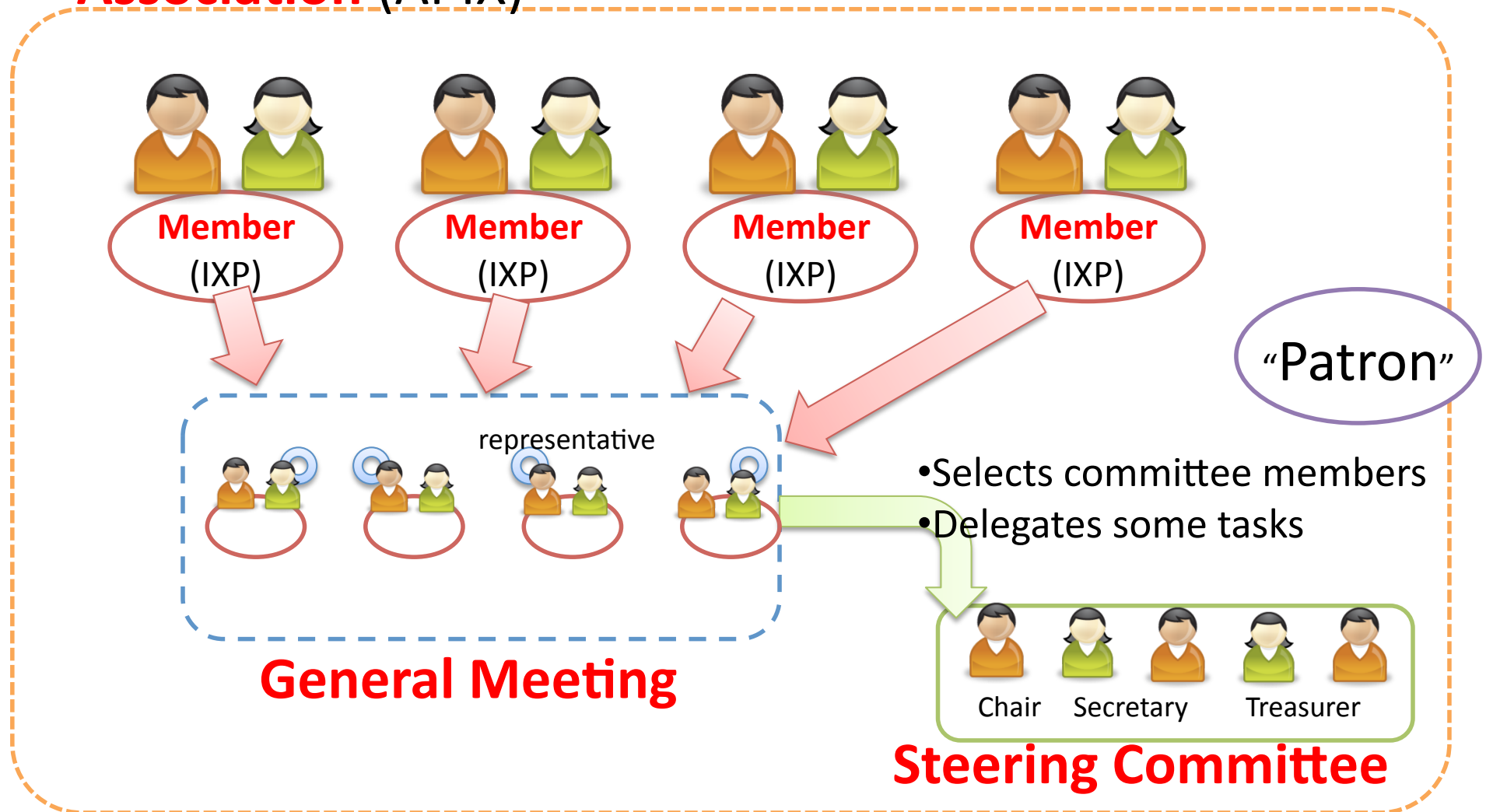
# Summary of 5<sup>th</sup> meeting

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- Administrative session
  - APIX bylaws are adopted.
    - Definition (Organization Architecture)
    - Purpose
    - Membership
    - Steering Committee
    - General Meeting
    - Amendment
- Technical session
  - IXP update
  - Route Server Update (From CISCO)
  - ARP issues on IX network (From AMS-IX)
  - Jumbo frame on IX network (From HE)

# Organization Architecture

## Association (APIX)



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# Outstanding Issues

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- Bylaws modification
- Legal entity
- Membership Fee
- Collaboration with other IXP associations

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- Thank you!

- Contact:

- apix-admin (at) apix.asia