IXP update
in Asia Pacific
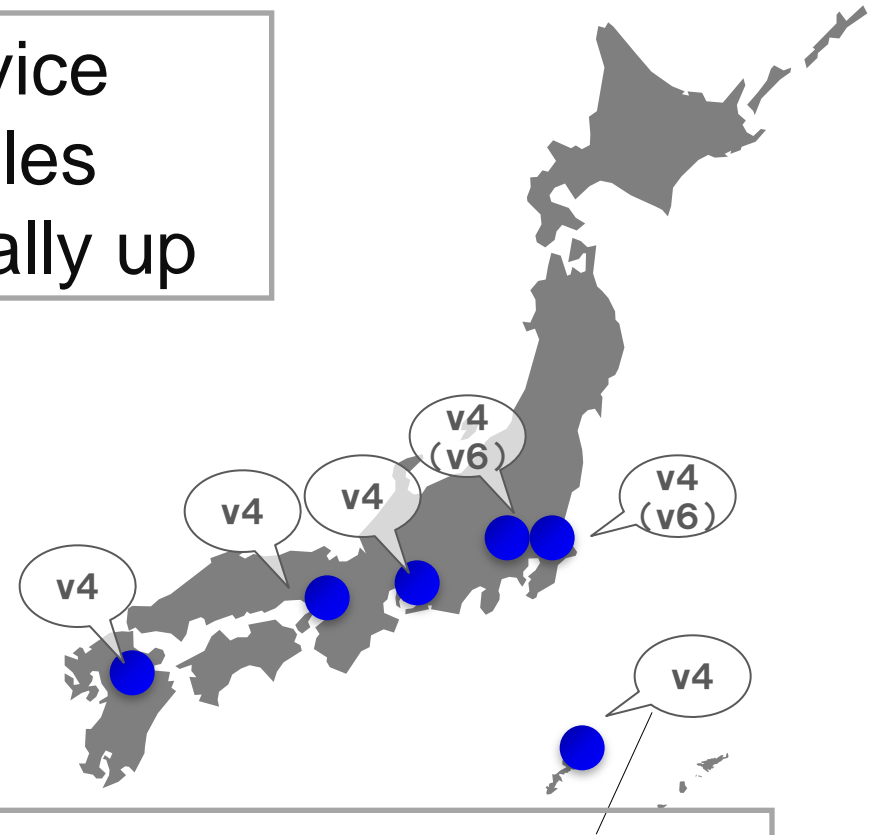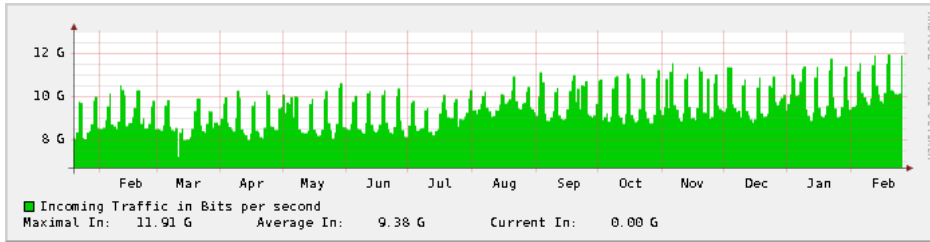
BBIX Update

26th Feb. 2012
BBIX Inc,

BBIX Update

IX Service

- IPv4 IXP service
- No Big Troubles
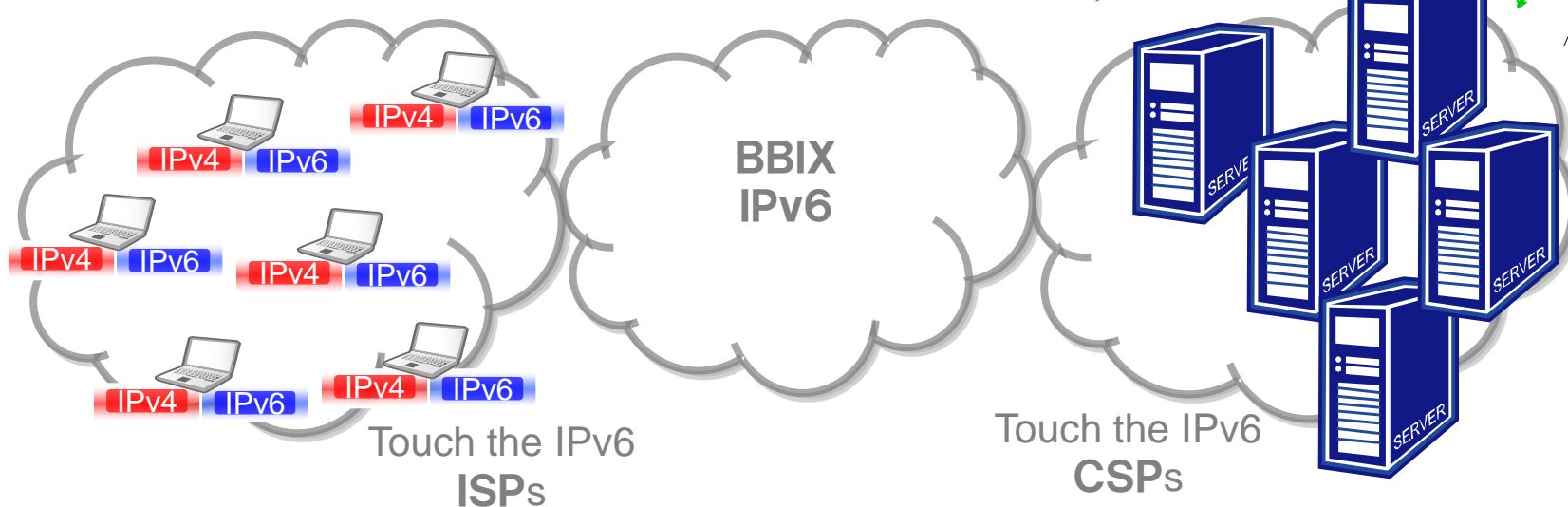- Traffic gradually up

```
12 G
10 G
8 G
     Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec  Jan  Feb
■ Incoming Traffic in Bits per second
Maximal In:   11.91 G      Average In:    9.38 G      Current In:    0.00 G
```

IPv6 Testing

- 5 CSPs connects to BBIX
- No big troubles @ W6D
but just connecting and studying…

v4
v4 (v6)
v4
v4
v4 (v6)
v4
v4

BBIX in 2012 and the future

BBIX Challenge

- Provide IPv6 on Every IXPs
- Strengthen IPv6 Testing
  - contents access tests
  - Fall-back tests
  - 4rd tests

v4 v6
v4 v6
v4 v6
v4 v6
v4 v6
v4 v6
v4 v6

IPv4 IPv6
IPv4 IPv6
IPv4 IPv6
IPv4 IPv6
IPv4 IPv6
IPv4 IPv6
IPv4 IPv6

BBIX IPv6

Touch the IPv6 **ISP**s

Touch the IPv6 **CSP**s

4
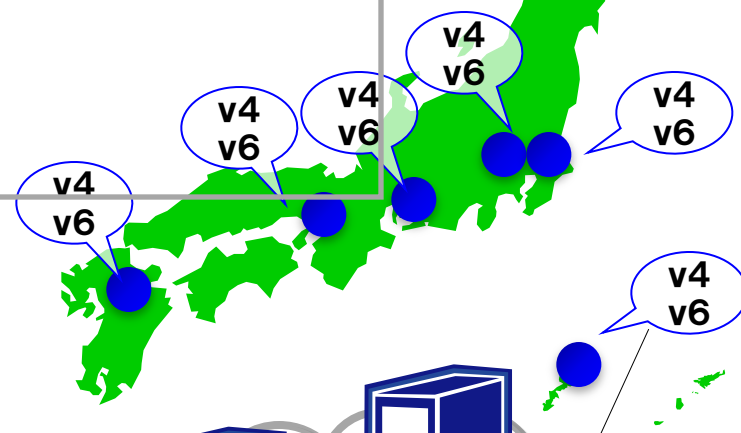
EQUINIX

IX Update

Apricot 2012

Raphael Ho

Equinix Exchange Update

- **160G Aggregate traffic in AP**
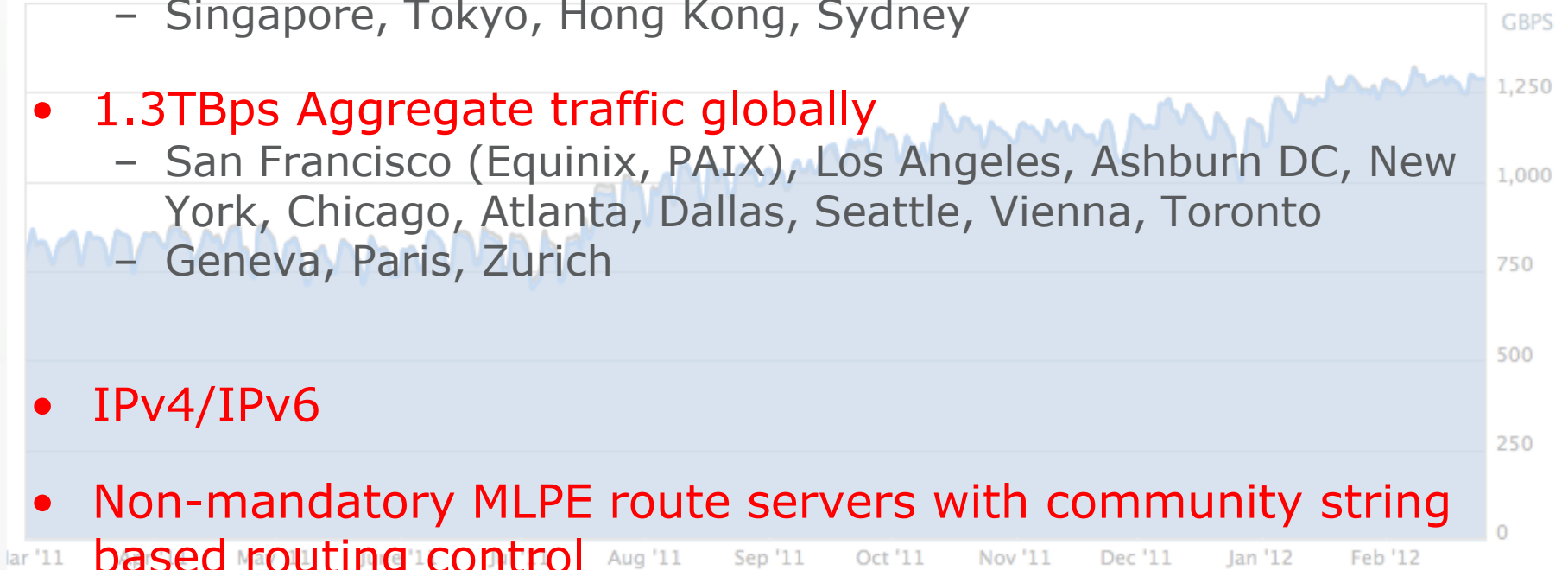 - Singapore, Tokyo, Hong Kong, Sydney

- **1.3TBps Aggregate traffic globally**
  - San Francisco (Equinix, PAIX), Los Angeles, Ashburn DC, New York, Chicago, Atlanta, Dallas, Seattle, Vienna, Toronto
  - Geneva, Paris, Zurich

- **IPv4/IPv6**

- **Non-mandatory MLPE route servers with community string based routing control**

- **New IX Portal (http://ix.equinix.com)**

EQUINIX

Mark your calendar

Asia Peering Forum

- 22-24 August, 2011

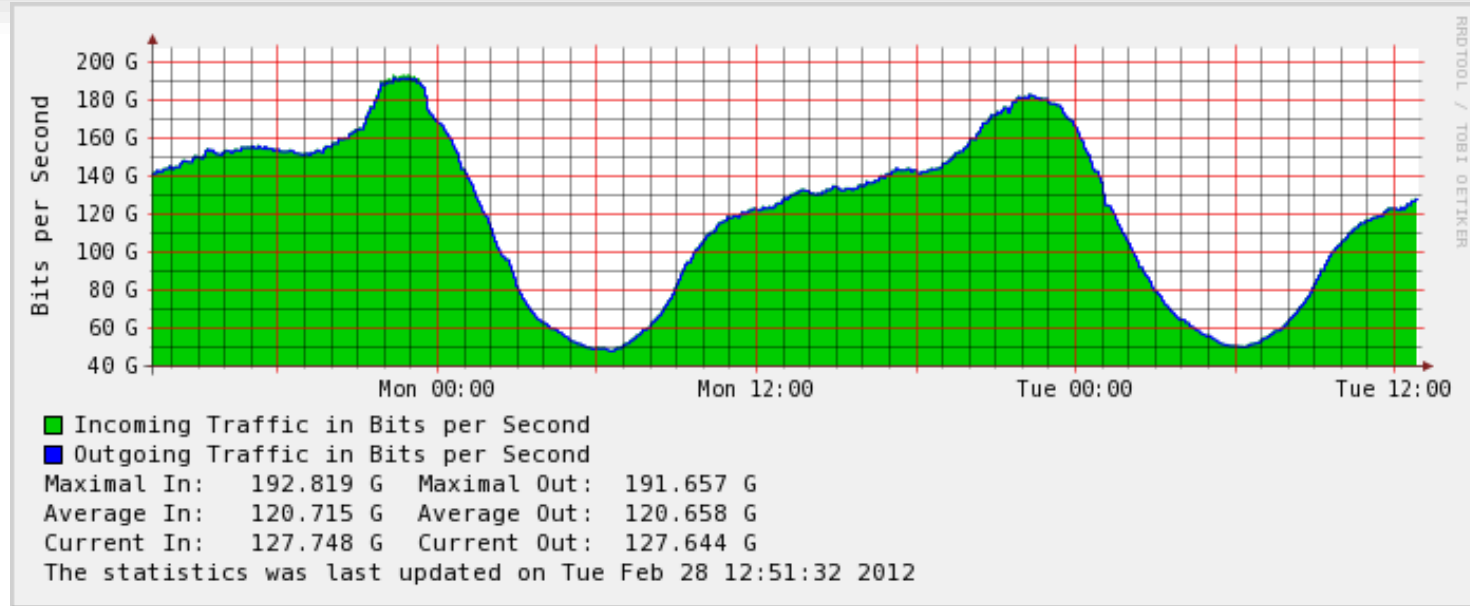- Manila, Philippines

- By invitation only

See you there!

Questions?

HKIX

HKIX Updates #1

- > 190 Gbps (5-min) traffic at peak
  - Traffic record broken just last Sunday night (26 Feb 2012)
- > 170 AS'es connected
  - > 50% IPv6 enabled
- > 50 x 10GE connections
- > 250 x 10/100/1000 connections

HKIX Updates #2

- Support and encourage Bilateral Peering (BLPA) over HKIX
  - HKIX is basically a layer-2 infrastructure
- A lot of new connections from overseas
  - Joining MLPA is optional to them as they do not have HK routes
- Support Link Aggregation which is getting popular
- Support 4-byte ASN

- Desire to build as dual-core (HKIX1 + HKIX1b) by 3Q2013 along with the new data centre set up in CUHK campus
- Have to solve capex funding issue
- Continue to be not for profit
- Continue to owned and operated by CUHK

JPIX

JPIX Update @ APRICOT 2012 Peering Forum

- **Our Stats**
  - **member # : 130AS over**
  - **peak traffic : 170Gbps over**

- **Our Switch**
  - **Dell Force10 Exa Scale, our main switches are very stable. We have no trouble.**
    - **The same in other than Force10 switches.**

IX IPv6 members

- ### 65% members have IPv6 addresses
- ### Dual Stack : IPv6 Native = 9 : 1
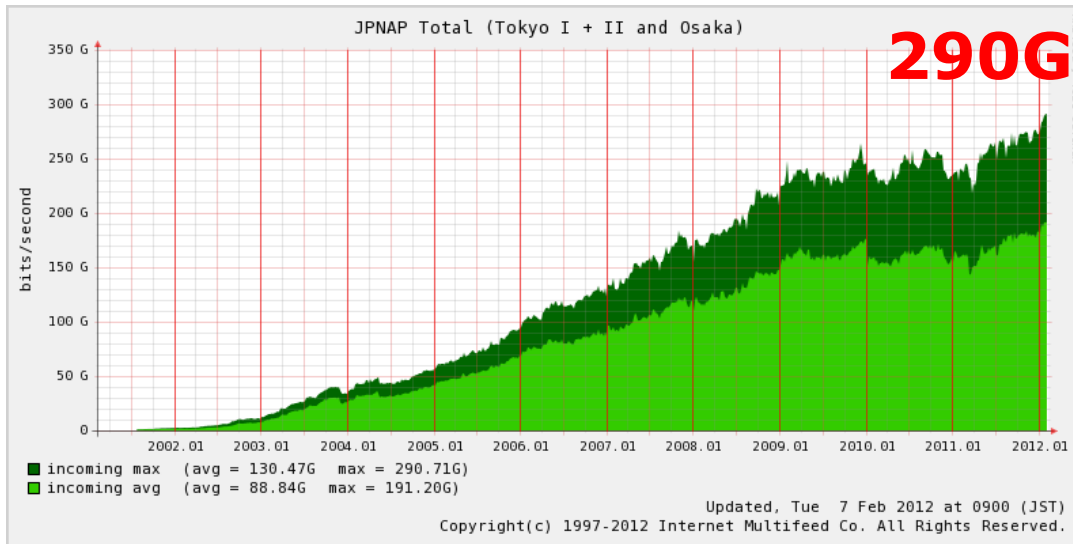
IPv6v4 Exchange Service

- ### We are providing trial service for IX members.
- ### 464XLAT is adopted as IETF v6ops WG document.
  - #### http://tools.ietf.org/html/draft-ietf-v6ops-464xlat

JPNAP

Katsuyasu Toyama

JPNAP by INTERNET MULTIFEED CO.

JPNAP update

- **3 exchange points** in Japan
  - Tokyo I, Tokyo II, and Osaka
  - all independent networks

- Topics
  - Route Servers in JPNAP Osaka.

  - Switches upgraded to Brocade MLXe.

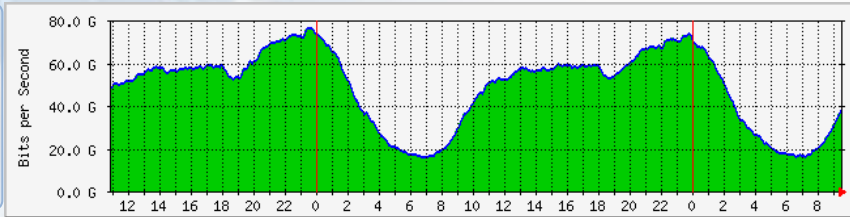 - Significant increase of mobile traffic.

	Customers		Traffic
Tokyo I	aprx. 90	↗	230G
Tokyo II	aprx. 10	↗	30G
Osaka	aprx. 30	↘	40G

JPNAP Total (Tokyo I + II and Osaka)

290G

bits/second

incoming max (avg = 130.47G max = 290.71G)
incoming avg (avg = 88.84G max = 191.20G)

Updated, Tue 7 Feb 2012 at 0900 (JST)
Copyright(c) 1997-2012 Internet Multifeed Co. All Rights Reserved.

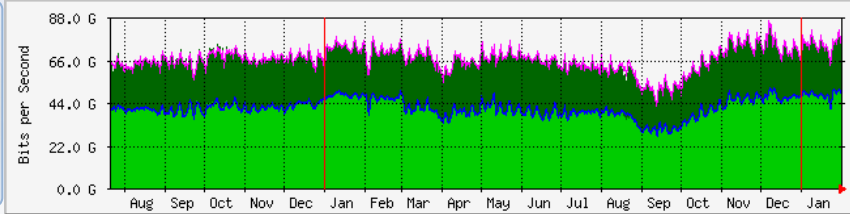**Osaka**   **Tokyo I**

Tokyo II

500km

KINX

- Traffic Status of KINX

| `Daily' Graph (5 Minute Average) | |
| `Yearly' Graph (1 Day Average) | |

Statistics of Korean Internet (KISA 2011)

- # of ASN : 1,016
- # of fixed BB : 17.8 M.
- # of fixed line : 18.6 M.
- # of Mobile : 52.5 M.
- # of Smartphone : 22.5 M.

✓ Total traffic of 85G reached with 2 Million fixed line broadband users and Contents providers.
✓ Many Contents (Movies / Drama) Download Service providers in the members
✓ Increase the traffic between Mobile service providers and Mobile contents providers
✓ Domestic P2P traffic reaches to 2Tbps

KINX Business Coverage

- IX service
- Carrier Neutral Data Center
- Transit & Leased Circuit (Backhaul)
- Public Cloud Service
- Game Downloading

Sangam 4th

Dogok 1st

Gasan 2nd

Bundang 3rd

KINX Carrier Neutral IDC
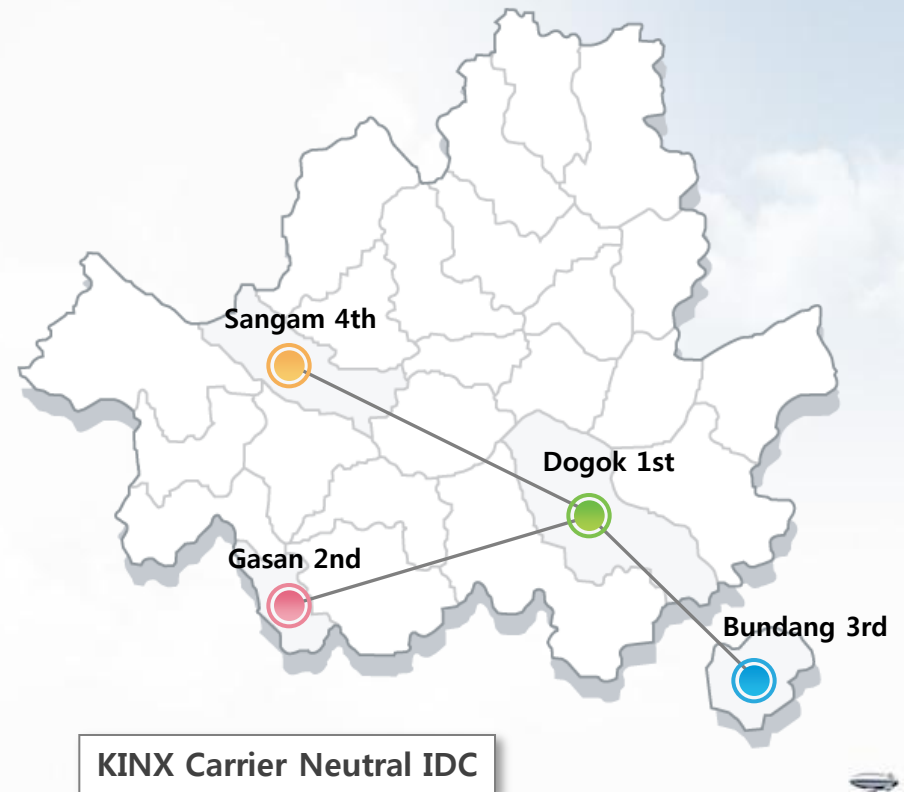
Raja Mohan
Operations Manager, Malaysia Internet Exchange (MyIX)
raja.mohan@myix.gov.my

- MyIX is Neutral, non-profit association

- Established in Dec 2006

- Funded by government, Support from regulator

- Managed and operate by the industry players

- Started with 16 members, now 48

- Traffic 300Mbps in 2006, Over 12 Gbps and growing

- Layer 2 IX, multiple sites

- Open peering

MyIX
Malaysia Internet Exchange

- Members comprise of ISP, content providers, co-lo & data centre providers & university

- Ordinary Member - voting members

- Associate Member – non voting members

- Membership by invitation – talk to us

- Peering with international players

- Route Server

NIXI Update

APRICOT 2012

Ajay Kumar

Technical Officer

ajay@nixi.in

NIXI Update

♦ Not for profit company of 10 IPv6 enabled IX in India, registered in 2003 with joint efforts by DIT and ISPAI.

♦ 41 major ISPs having 96 connections across all 7 IX and peak traffic is 17 Gbps **.**

♦ **Operational Nodes with ISP connected**

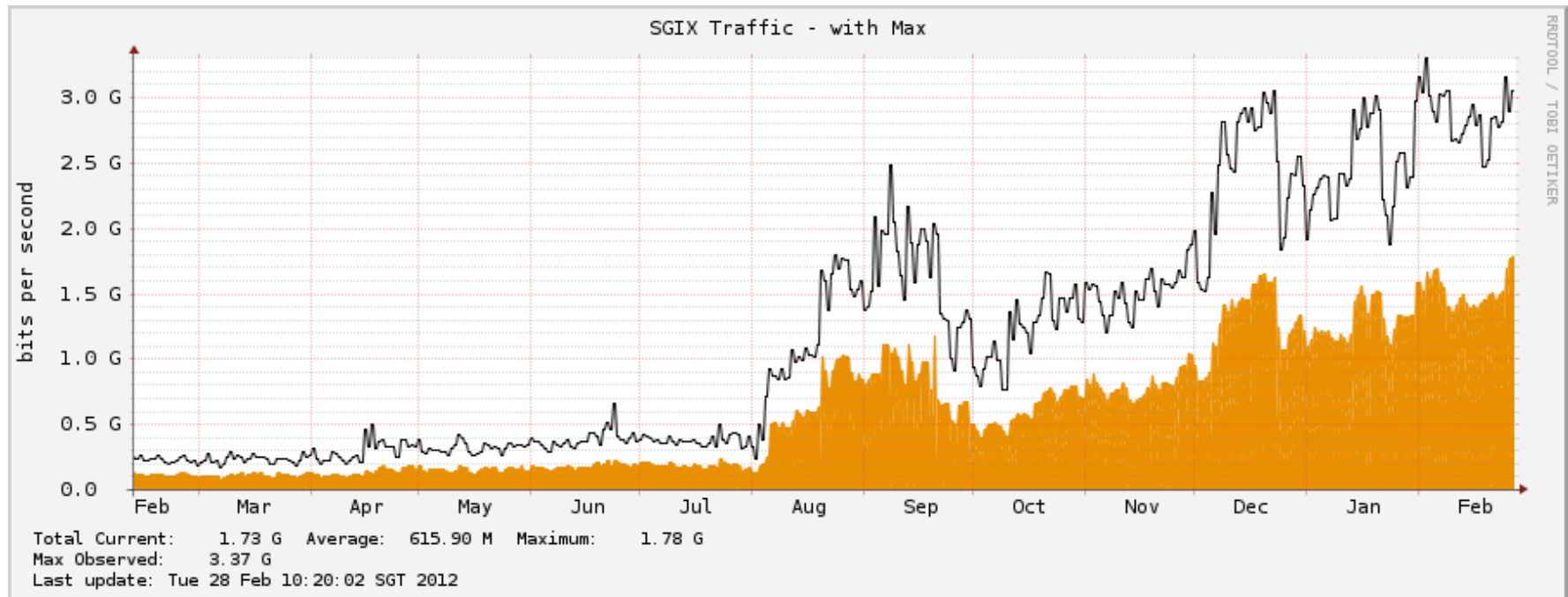| Node Location	No of connections	Peek Traffic
- Mumbai	32	7. 7 gbps
- Delhi/Noida	25	4.0 Gbps
- Chennai	16	5.0 Gbps
- Kolkatta	9	30 Mbps
- Hyderabad	6	6 Mbps
- Bangalore	6	2 Mbps
- Ahmedabad	2	0

♦ **Upcoming NIXI Node**(Equipments in-placed and ISPs have to come forward for connecting) - Mohali,Lucknow,Guwahati

SGIX

Singapore Internet Exchange

1. A neutral, not-for-profit Internet exchange operating based on membership basis

2. Located in Global Switch and 1-Net

3. More than 20 members. Peak traffic of 3.37G

- Thank you!