Russian
Peering Ecosystem

CEE Peering Day 2014
Sergey Kiselev, MSK-IX

Peering locations

Moscow / St. Petersburg

- MMTS-9 / Borovaya – unique very populated peering locations of the past century

- Datacenters – growing business with substantial new development. Up to10-30 providers per DC in average. Costly fiber to MMTS-9 / Borovaya.
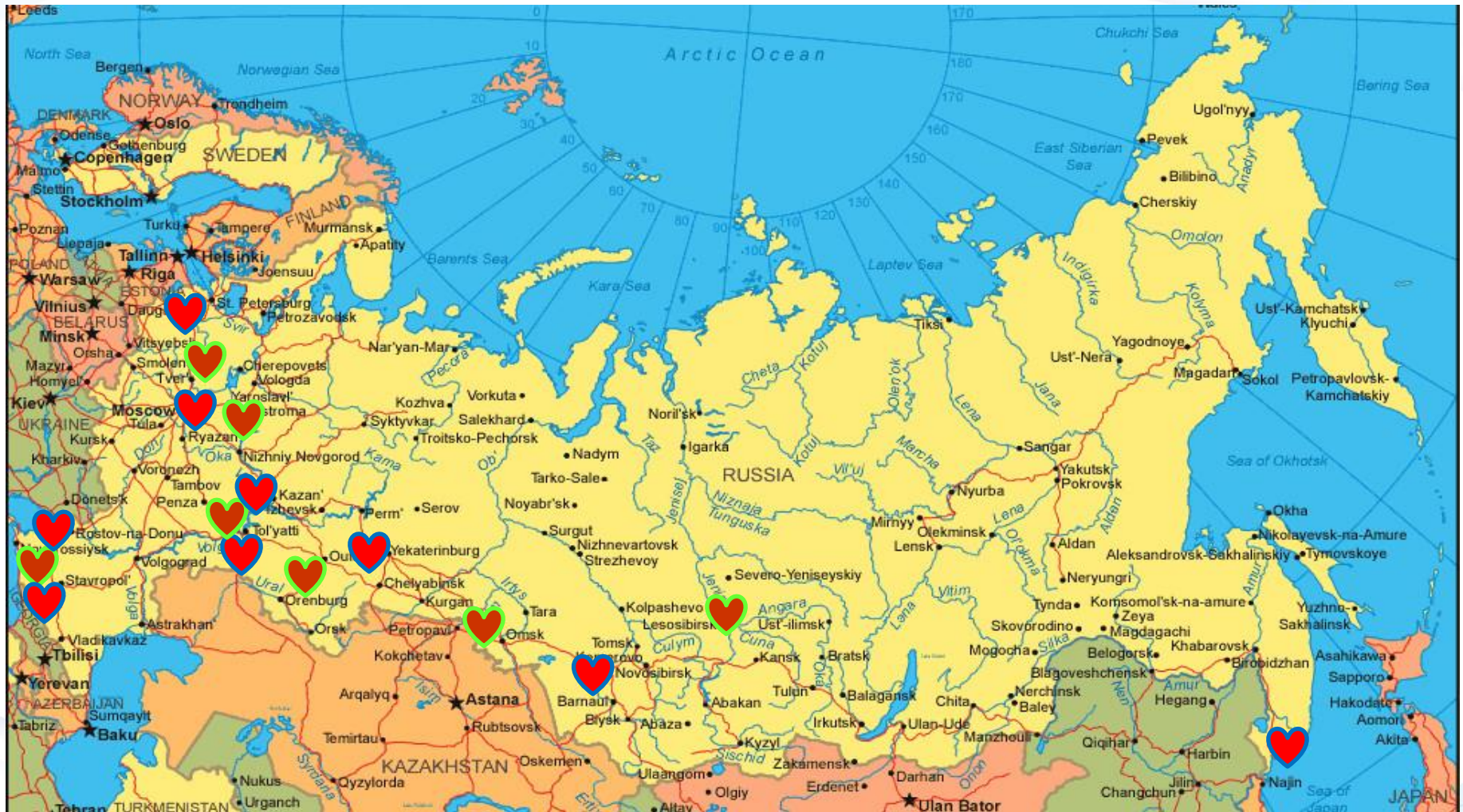

Other major cities

- Lack of neutral up-to-date colo infrastructure. No standard remote hands service mostly.

- Transit much more expensive than that in Moscow / St. Petersburg

- Most of hosting, content and services far away (Moscow / St.Petersburg / other countries)

MSK-IX and other IXs on the map

❤ MSK-IX   ❤ Other IXs

Market challenges

❑ Continued consolidation of small regional ISPs by big players (Megafon, Rostelecom, MTS, Beeline, TTK)

❑ Transit pricing erosion at St. Petersburg and Moscow combined with paid peering pricing lowering (at this point 1G port affected mostly)

❑ At least three projects IX-like emerged on the market:
- DataIX - distributed peering with preferences to traffic sources (content/service providers free of charge including x-conn)
- W-IX (iHome) offering distributed peering at all public peering points where they are a member
- CloudIX - transit combined with free local peering

MSK IX

Common features of IX-like projects

❑ Using "IX" wording to differentiate from traditional majors like Rostelecom, Megafon, MTS, Beeline, TTK

❑ Hire or buy third party dark fiber capacity to build own network

❑ Using very advanced network equipment capable to emulate IX environment out of transit network

❑ Pricing depends on location, traffic profile and volume

❑ Addressing needs of small Russian ISPs in cheap traffic

❑ Expanding their networks reach beyond Russia

MSK IX

Traffic costs

Peering

- Private from free through public peering cost

- Public peering at Moscow MSK-IX:
  - 1G   577 Euro
  - 10G   1730 Euro
  - 100G   coming spring 2014

- Public peering at other cities 80%-160% of Moscow pricing
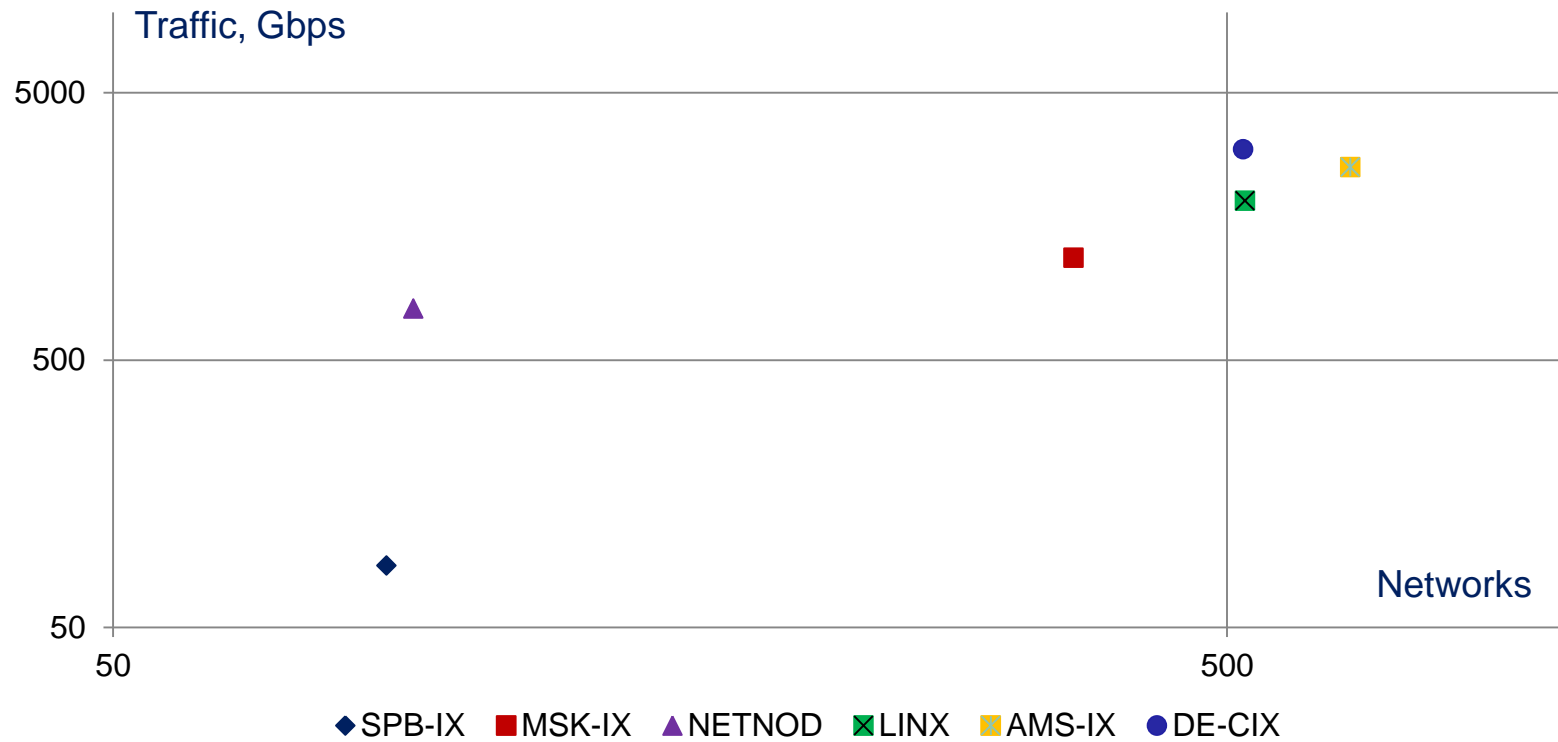
± X-connection / last mile

Transit

- Negotiable. Depend on volume, proximity to peering locations and competition level

- Within Russia varies 0.4 .. 40 Euro per 1 Mbps **

± X-connection / last mile

MSK·IX

Scale of public peering

Public peering growth
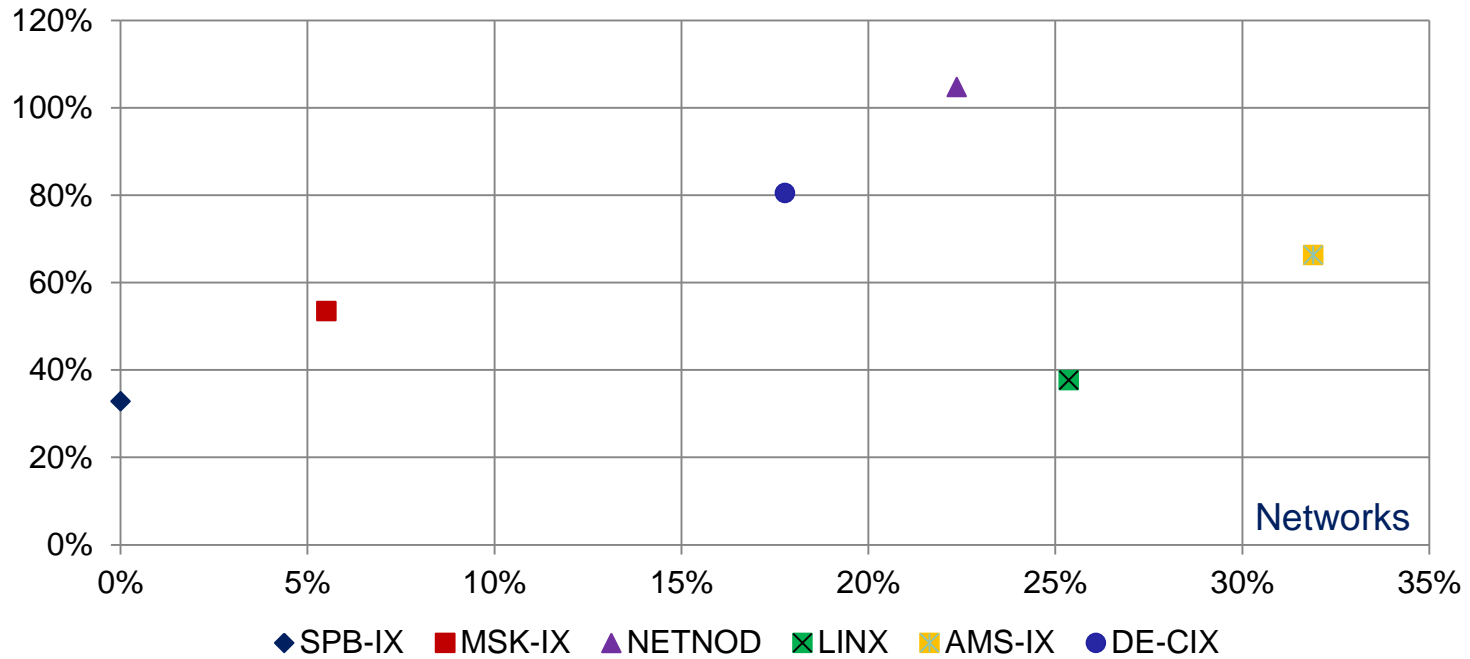
Based on public data for the period from 2012 through 2014

Peering in 2014

Outlook from Dr. Peering

❑ Internet traffic growth to be continued

❑ Remote peering continues its growth: enterprises, content providers, cloud, e-commerce and portals

❑ Emerging regions growth drives traffic and routes to mature IXPs

❑ New traffic and applications drive distributed peering growth

❑ Power and capacity growth drive distributed peering growth
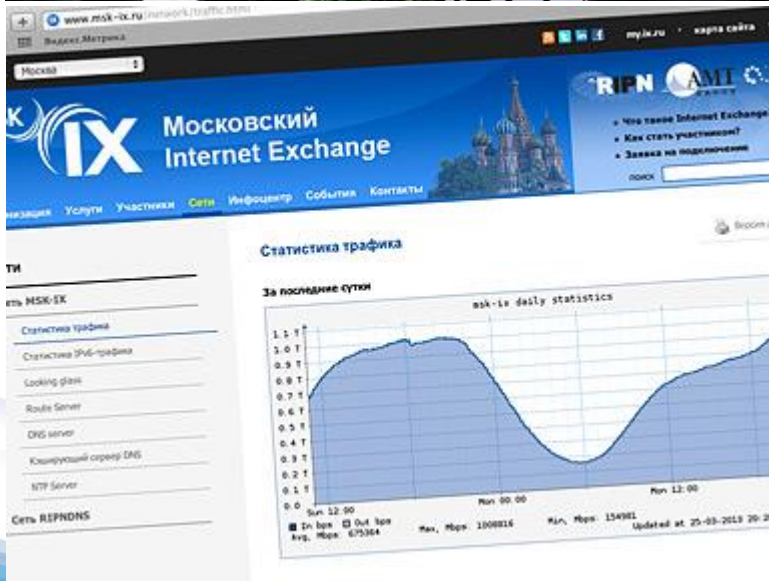
MSK-IX

- Operating since 1995 in Moscow

- Currently 9 IX points across Russia:

  - St. Petersburg SPB-IX
  - Moscow MSK-IX
  - Roston-on-Don RND-IX
  - Stavropol STW-IX
  - Samara SMR-IX
  - Kazan KZN-IX
  - Ekaterinburg EKT-IX
  - Novosibirsk NSK-IX
  - Vladivostok VLV-IX

- Moscow Internet Exchange with 368 ASN / 263 unique across Euro-IX over 1.2 Tbps peak traffic

- All MSK-IX' IXs: 500+ unique ASNs

MSK-IX services

High Speed Switching Platform

Public peering
Nx10 Mb/s – Nx10 Gb/s
100 Gb/s coming 2014 spring

| Route Server | DNS | NTP |

Private VLANs
Nx10 Mb/s – Nx10 Gb/s
100 Gb/s coming 2014 spring

| P2P | MP2MP | Virtual cross-connect |

Colo and x-connect management

| Logistics | Neutral colo | X-conn management |

Remote connection

| DC2IX | Prov2IX | IX2IX |

Managed DNS

| Corporate | National |

Peering community

| Next Peering Forum Moscow 04/12/2014 | Remote service management | Network and peering consulting |

MSK IX

Thank you for attention ;)

Sergey Kiselev

Business Development and Marketing

kiselev@msk-ix.ru