



# Euro-IX Update

SEE2– Skopje, April 2013

Euro-IX - Bijal Sanghani

bijal at euro-ix dot net

Twitter: @euroix @bijalsanghani



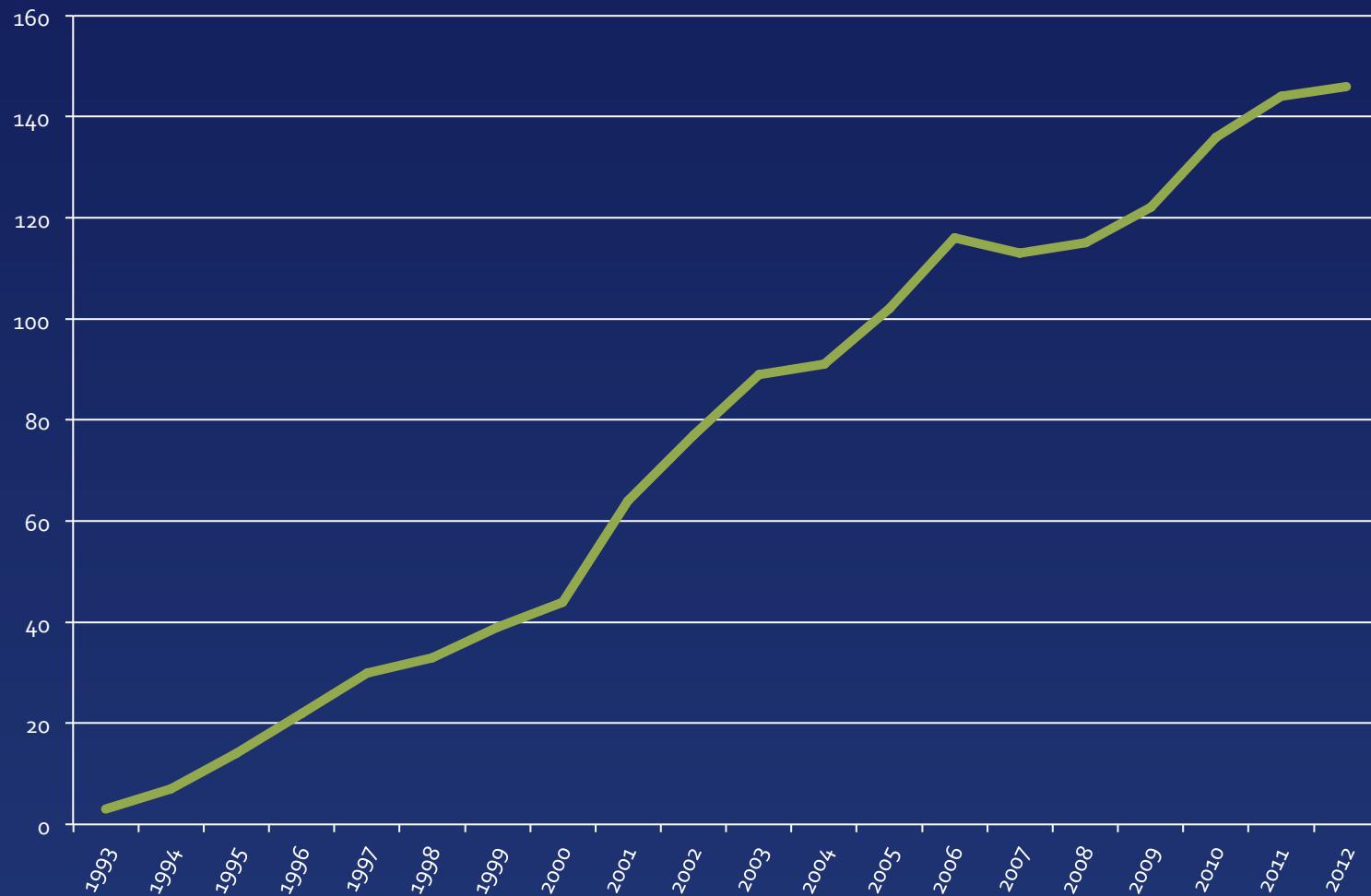
# An Association for Internet Exchanges

- 74 affiliated IXPs:
  - 52 IXPs in Europe (30 Countries)  
Operating over 70 Internet exchanges
  - 22 IXPs from the rest of the world
  - Newest Members, ALB-IX (Albania), TunIXP (Tunisia), KINIX (Congo), UAE-IX (United Arabic Emirates), ZIXP (Zambia), CyrusOne (USA) and OttIX (Canada)
- 11 affiliated patrons:
  - ADVA Optical Networking
  - Brocade
  - Cisco
  - Extreme Networks
  - Interxion
  - Juniper Networks
  - MRV
  - Telecity
  - Telehouse
  - Alcatel-Lucent
  - Huawei

# Euro-IX Region



# Growth of IXPs in the Euro-IX Region since 1993



# Why does Euro-IX do this?

For the good of the IXP community

- 2 Forums a year
- Maintains the Website, database and tools
- Mailing Lists
- Working Groups and Task Forces
- Euro-IX BMC - Benchmarking Club
- Annual European IXP Report
- Twinning Program
- Other project, e.g., Euro 2012 CL with RIPE NCC

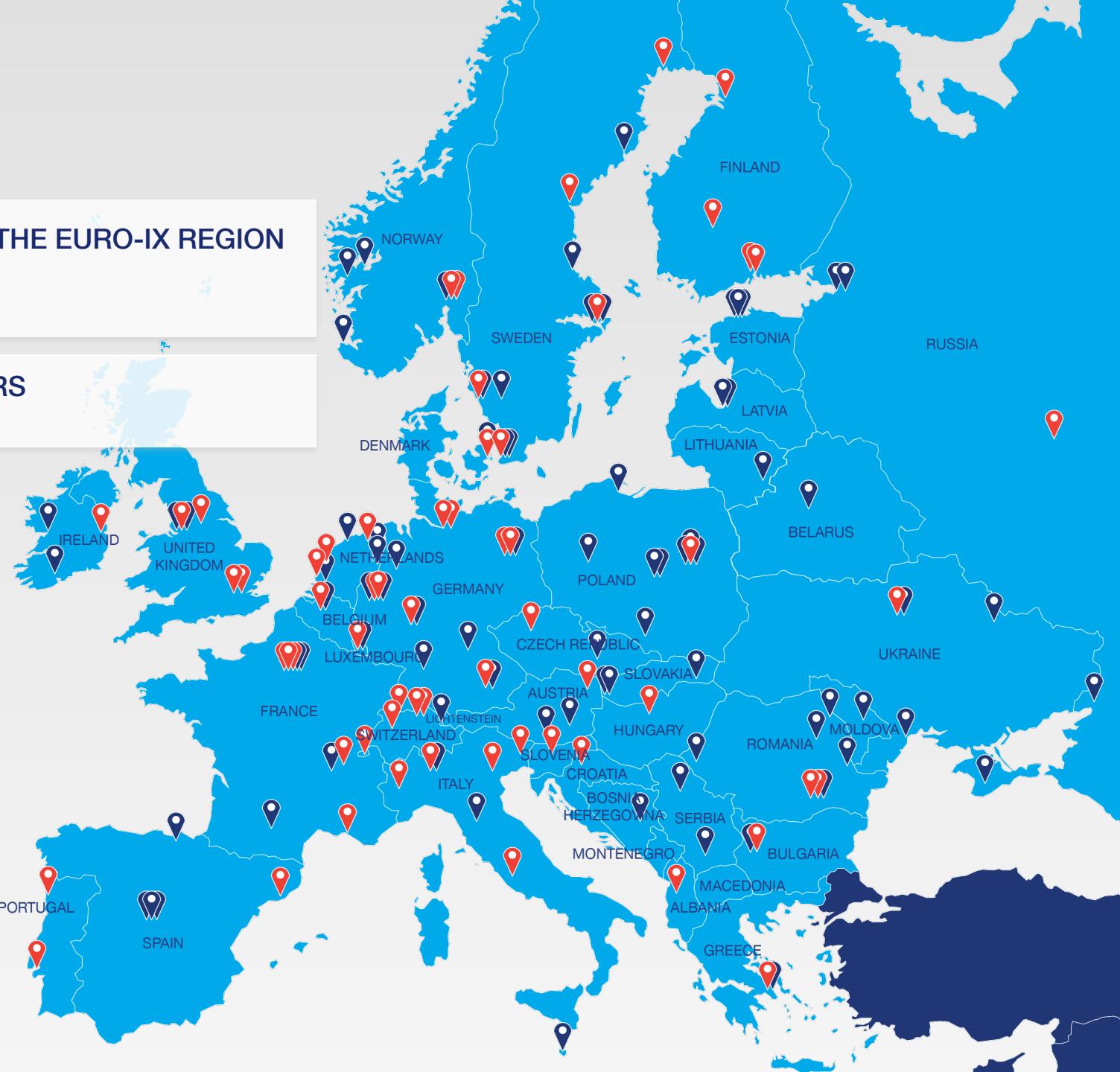
# Internet Exchange Federation

- Since 2005 non EU IXPs were invited to Euro-IX
- Formation APIX, LAC-IX and Af-IX (August 2012)
- MoU signed to form the IX-F in November 2012
- Idea to have a Global IXP DB
- Automate Data Collection from all IXPs
- Set standards

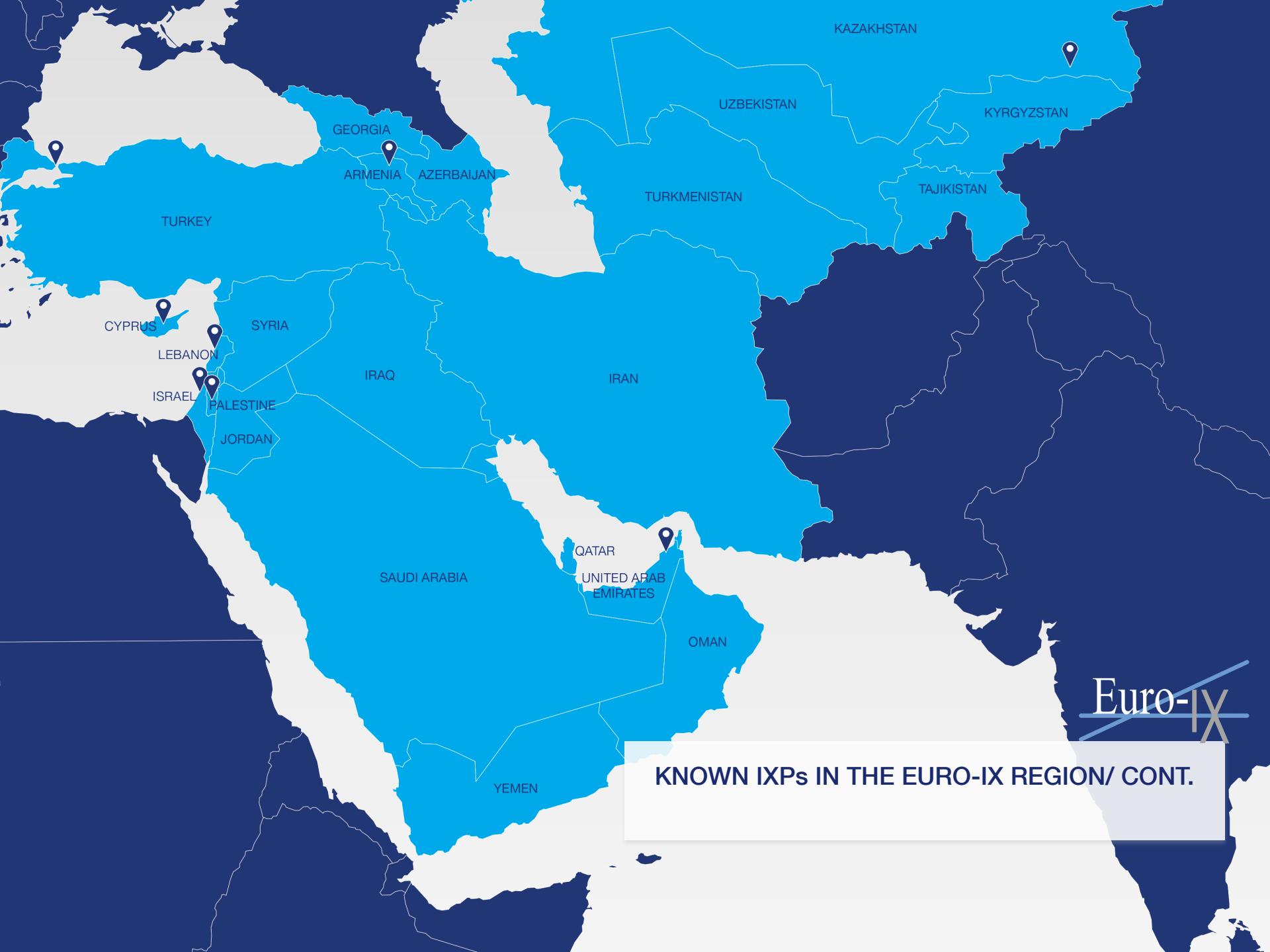


**161 KNOWN IXPs IN THE EURO-IX REGION  
48 COUNTRIES  
123 CITIES**

📍 **EURO-IX MEMBERS**  
📍 **OTHER IXPs**



Euro-IX



# Euro-IX Region Traffic growth past 12 months in Gbps

(known IXPs in Europe, public peering LANs)



## CZECH REPUBLIC

AUSTRIA

SLOVAKIA

1

HUNGARY

OVENIA

CROATIA

BOSNIA  
HERZEGOVINA

SERBIA

MONTE NEGRO

BULGARIA

ALBANIA

MACEDONIA

GREECE

# 3 KNOWN IXPs IN SOUTH EAST EUROPE

13 COUNTRIES

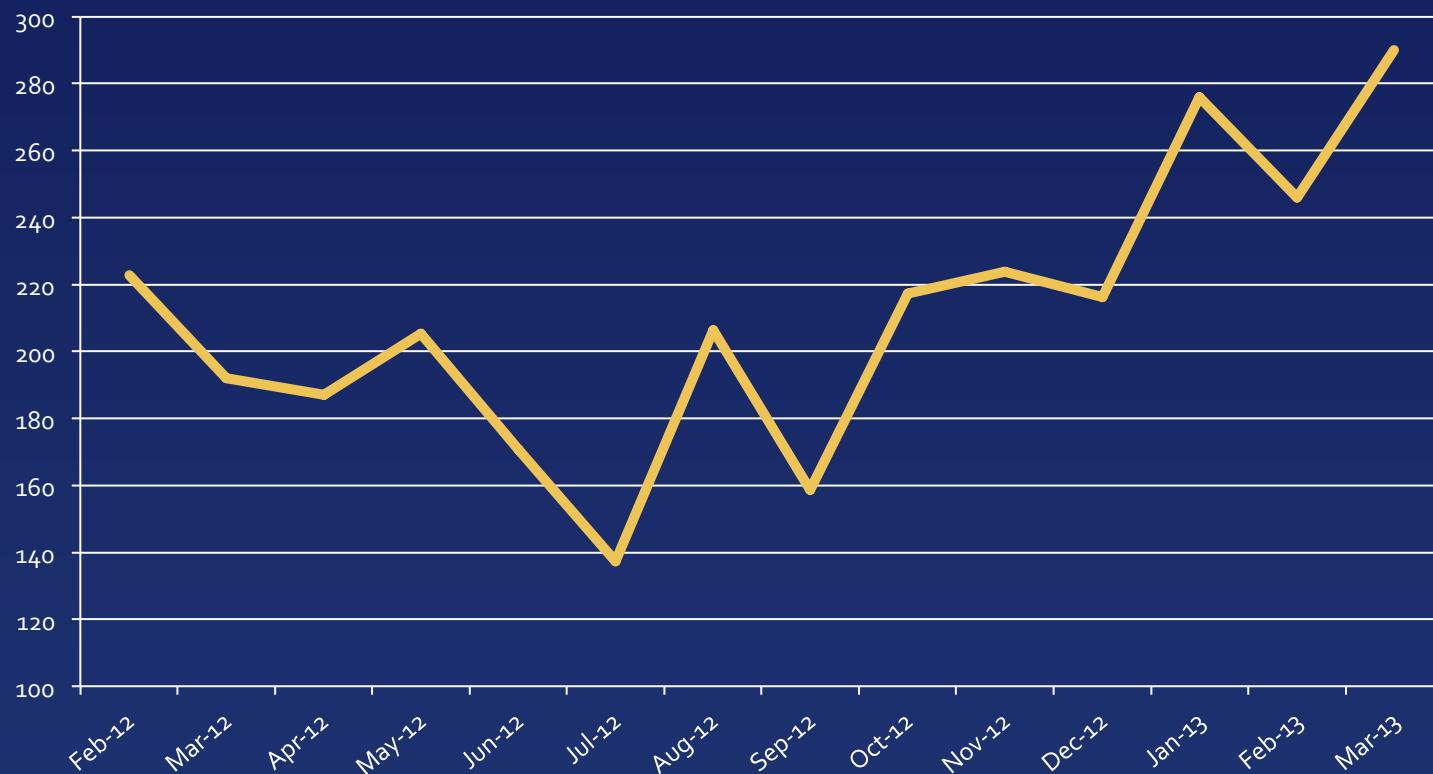
18 CITIES

📍 EURO-IX MEMBERS

## 📍 OTHER IXPs

# SEE Region Traffic growth past 12 months in Gbps

(known IXPs in SEE, public peering LANs)





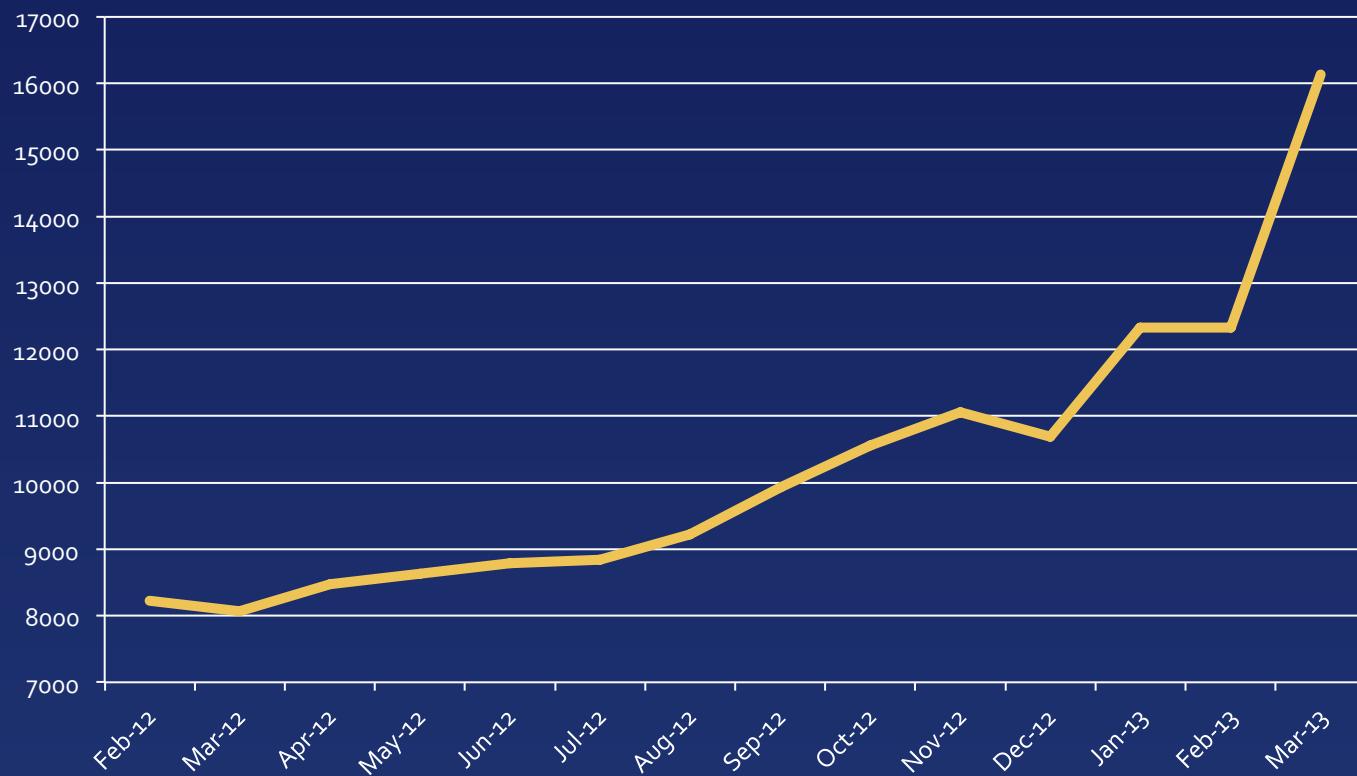
## Euro-IX ASN DB/ WORLDWIDE

11.247 IXP PARTICIPANTS

4.033 IPV6 ACTIVE

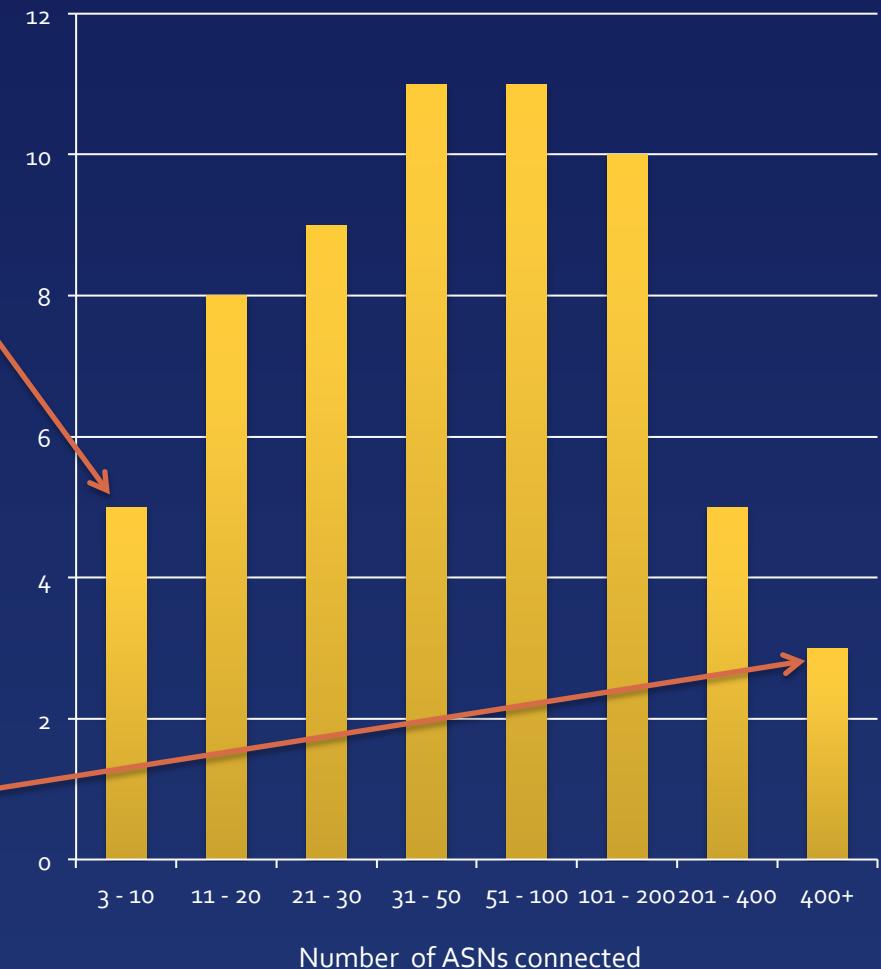
6.045 UNIQUE ASNs

## Global Traffic growth past 12 months in Gbps (known IXPs, public peering LANs)



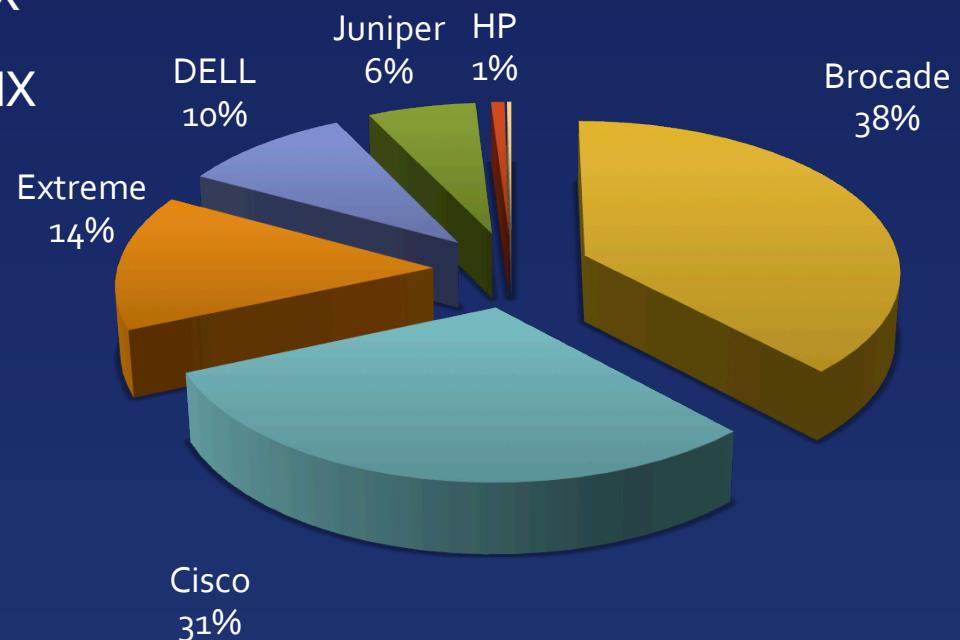
# Range of Euro-IX IXPs with a given range of ASNs connected

- 3-10 ASNs connected -  
KINIX (Congo), CAR-IX (Caribbean)
- 11-30 ASNs connected -  
TREX (Finland), NPIX (Nepal),  
Gigapix (Portugal), GNIX (Netherlands)
- 50-100 ASNs connected –  
NAMEX (Italy), INEX (Ireland),  
Netnod (Sweden), JPNAP (Japan)
- 100-300 ASNs connected -  
UA-IX (Ukraine), SWISS-IX (Switzerland),  
PLIX (Poland)
- 300+ ASNs connected –  
AMS-IX (Netherlands), DE-CIX (Germany) ,  
LINX (UK) & PTT.br (Brazil)



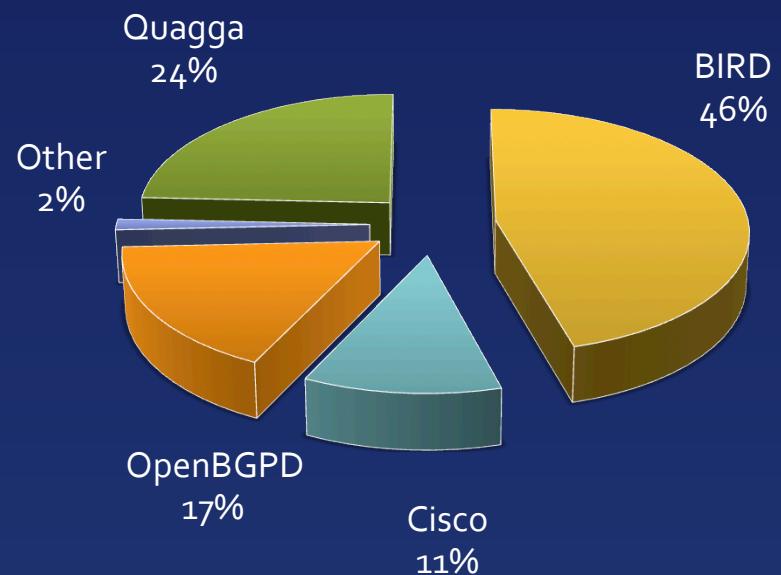
# Market share of vendors among EU IXPs within the Euro-IX Membership (%)

- Brocade – AMS-IX, MIX (IT), JPIX
- CISCO – LONAP, TOP-IX, MSK-IX
- Extreme – PLIX, MSK-IX, LINX
- DELL (Force10) – DE-CIX, BCIX
- Juniper – LINX, VSIX



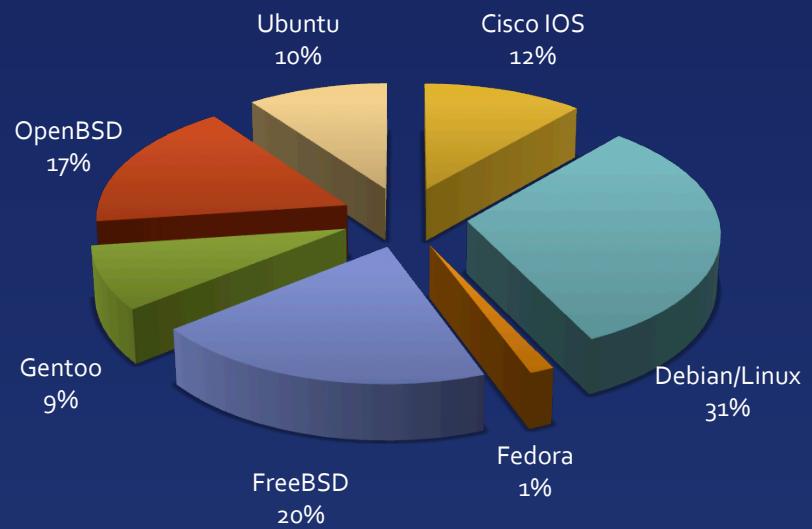
# Route server daemons in use within the Euro-IX Membership (%)

- BIRD – LINX, France-IX, CIXP
- CISCO - AMS-IX, MSK-IX, UA-IX
- OpenBGPD - BCIX, SWISS-IX, NL-ix
- Quagga – PTT.br, JPNAP, ECIX



# Route server operating systems in use within the Euro-IX Membership (%)

- Debian/LINUX – AMS-IX, TelIX, DE-CIX
- CISCO IOS – BIX, UA-IX
- FreeBSD – NIZ.CZ, PLIX, LyonIX
- Ubuntu – PTT.br, ECIX



# Summary

- Euro-IX is an Association for Internet Exchange Point
- Euro-IX and it's Members are here to help, support, share experience and give advice.
- Come and talk to us ☺



# Thank You!

Bijal Sanghani – Euro-IX  
bijal at euro-ix dot net  
Twitter: @euroix @bijalsanghani