

# RIPE 58 - EIX WG AMSTERDAM

## EURO-IX UPDATE

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EURO-IX

# What is Euro-IX?

- European Internet Exchange Association
- Formed in May 2001
- The association's aim is to further develop, strengthen and improve the Internet Exchange Point (IXP) community
- Since January 2005 Euro-IX has invited IXPs outside of Europe to join the association

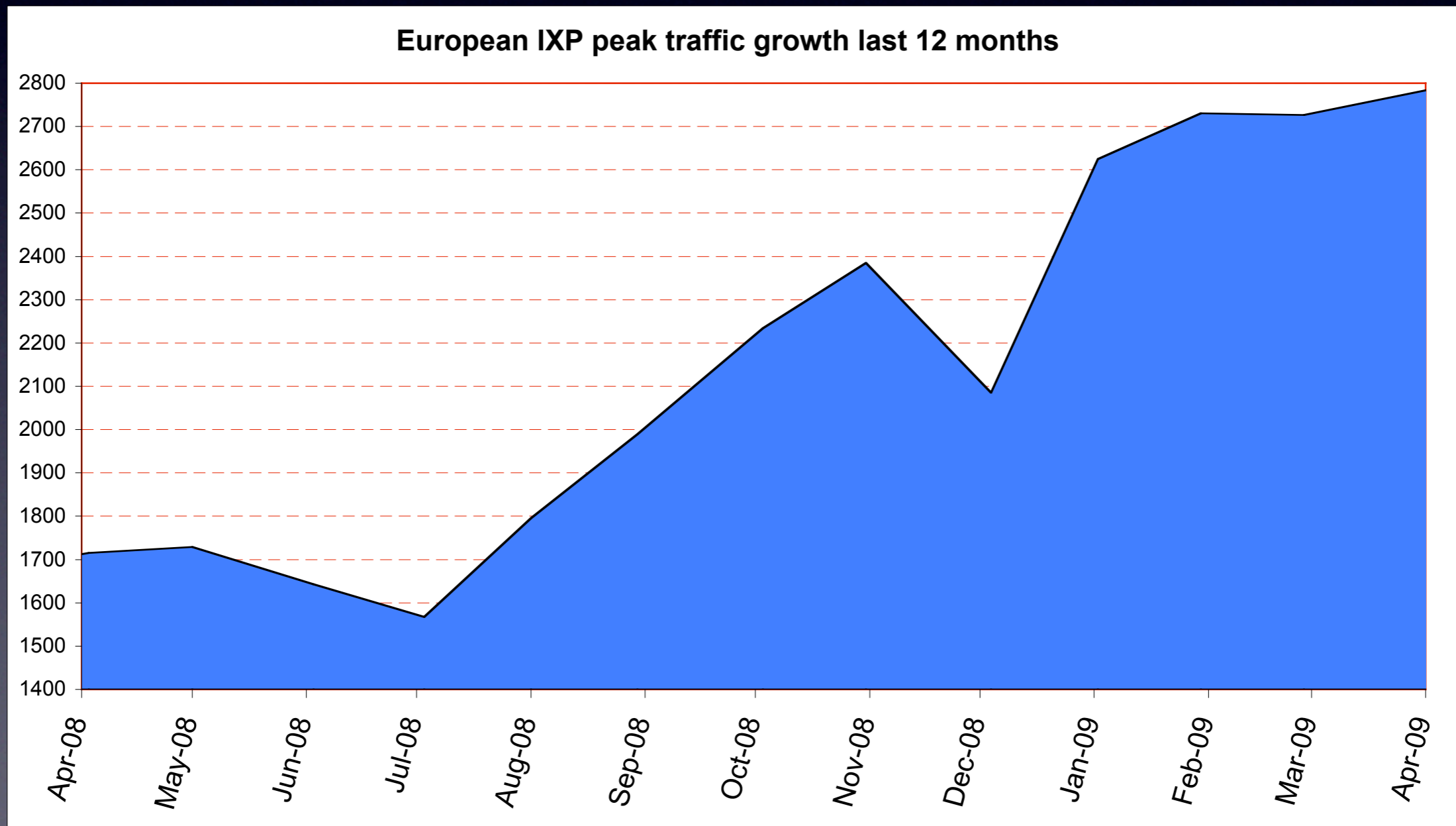
# Current Euro-IX affiliates

- 43 affiliated IXPs:
  - ▶ Europe: 34 (25 different countries)
  - ▶ Africa: 1 in Egypt (MEIX operated by GPX)
  - ▶ Asia: 5 (India, Japan & Nepal)
  - ▶ United States: 3
- 8 affiliated patrons:

Brocade	Cisco	Extreme Networks
Force10 Networks	Glimmerglass	<u>Interxion</u>
<u>Juniper Networks</u>		TelecityGroup

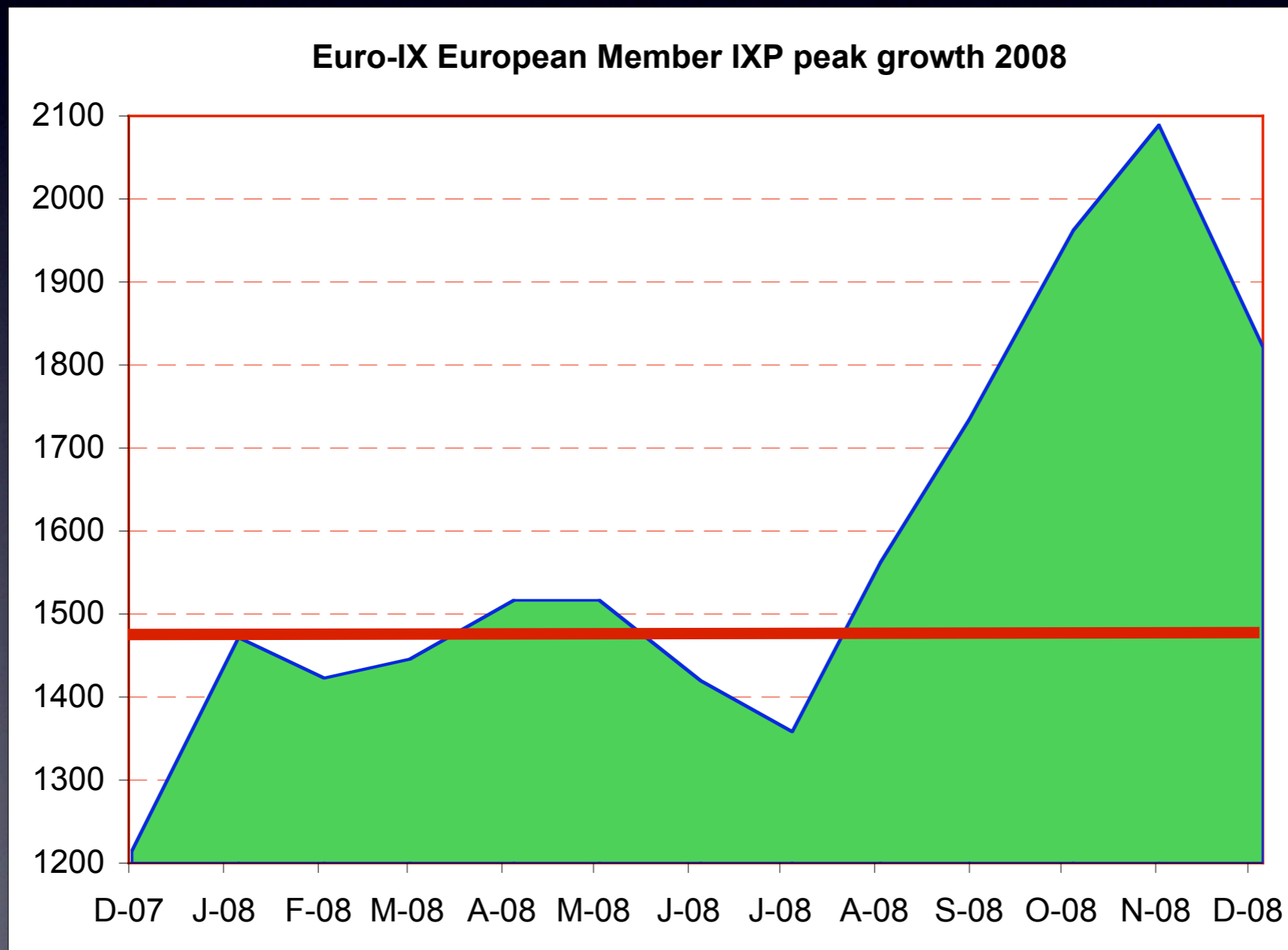
# European IXP traffic

- Combined European IXP peak traffic has risen from:
  - 1.715 Tbps end April '08 to 2.784 Tbps end April '09
  - 1.069 Tbps or 62% increase in the past 12 months



# 2008 IXP traffic

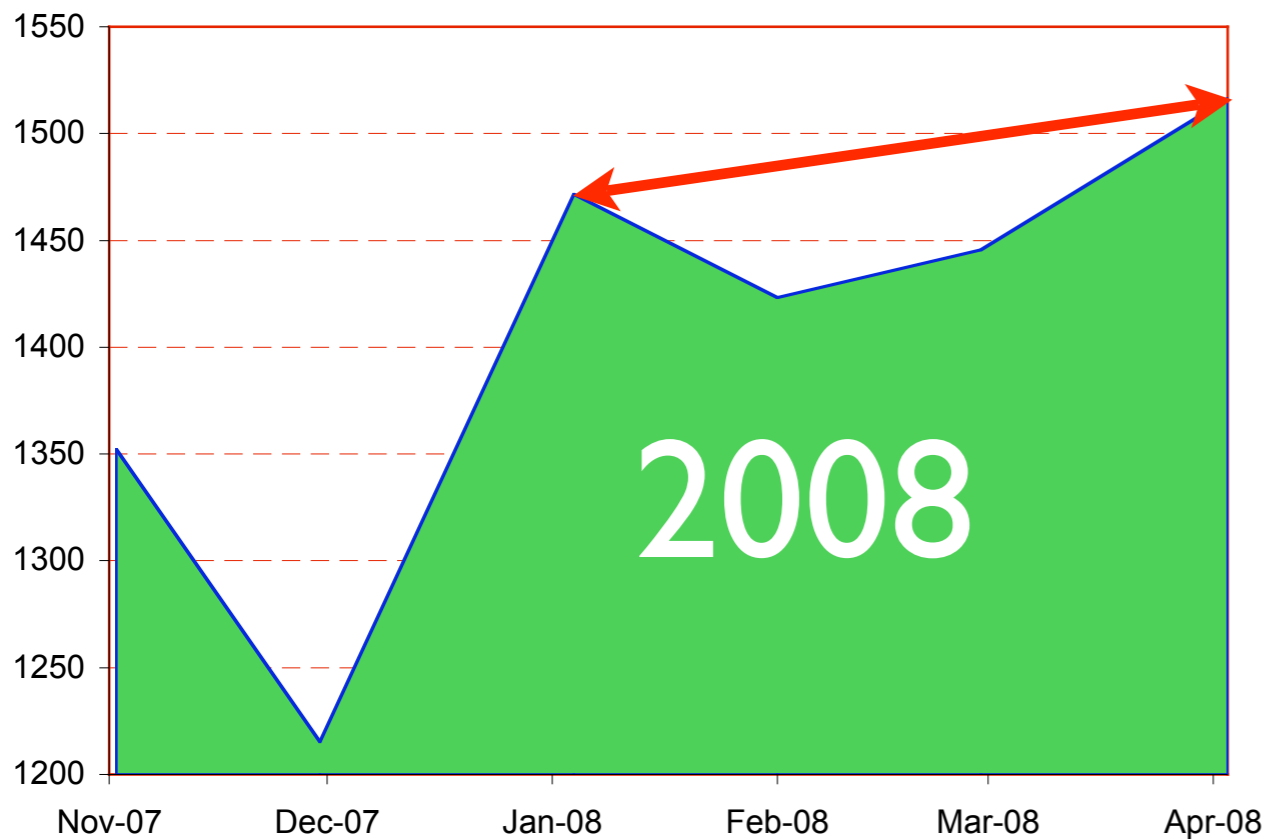
- The increase in peak traffic from the end of Dec 2007 to the end of Dec 2008 was 50%
- In 2007 the increase was 74% & 2006 57%



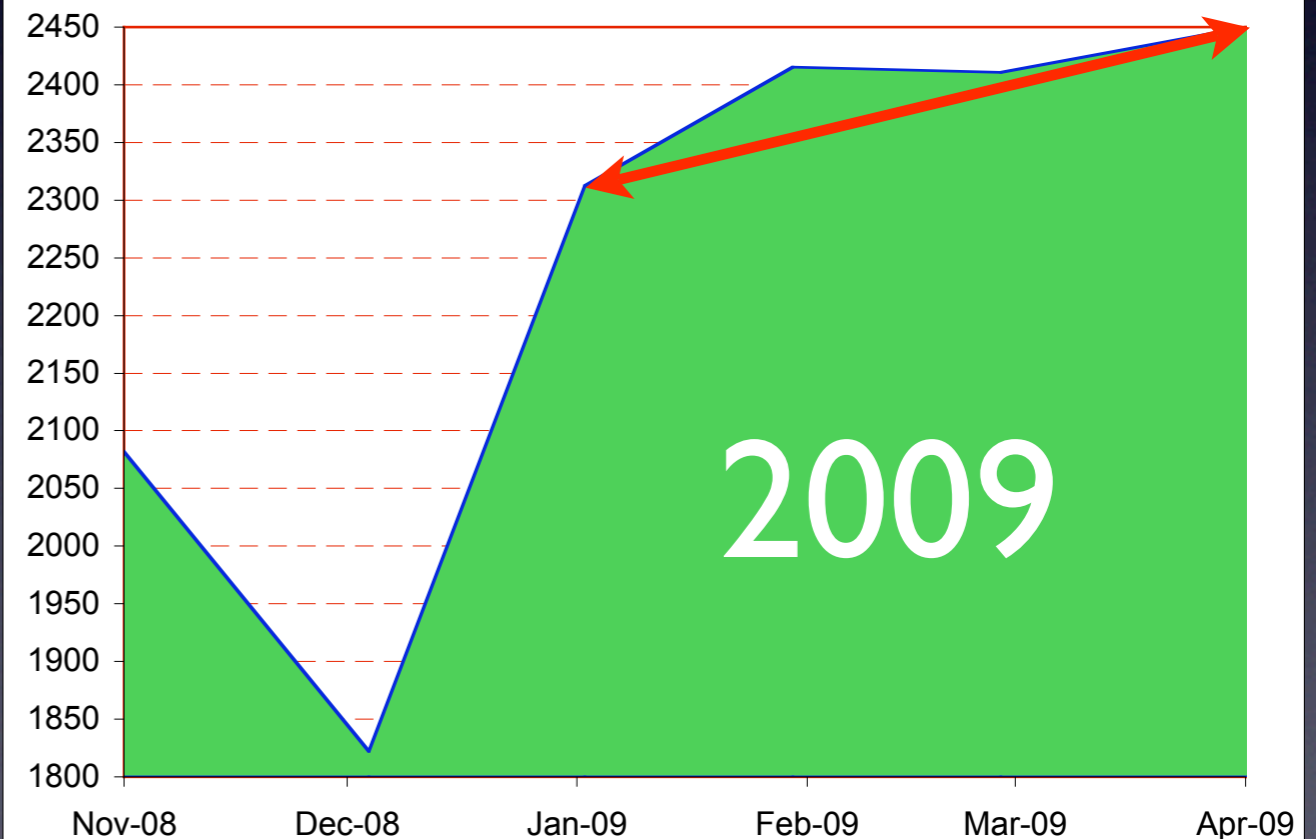
# Begin 2008 vs begin 2009 IXP traffic

- The increase in peak traffic from the end of January 2008 to the end of April 2008 was only 3%
- In 2009 this increase is 6%

Euro-IX European Member IXP peak begin 2008

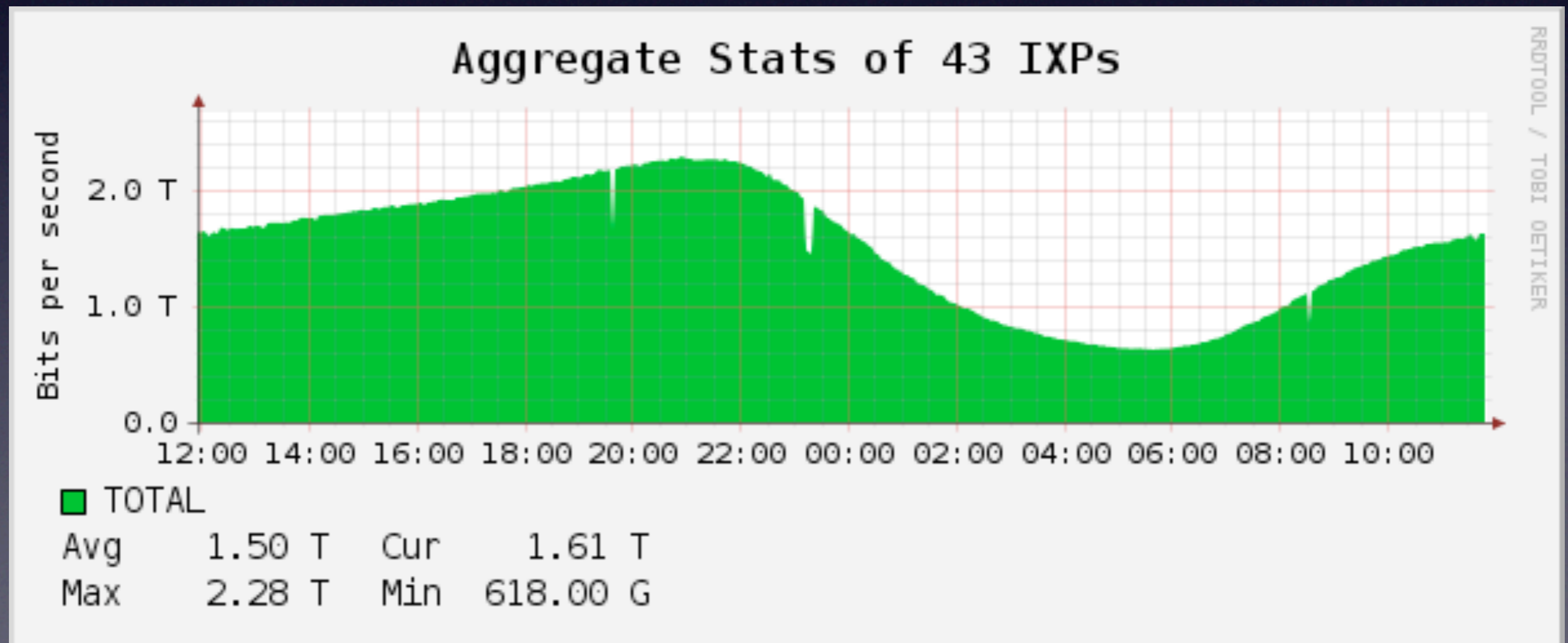


Euro-IX European Member IXP peak growth begin 2009

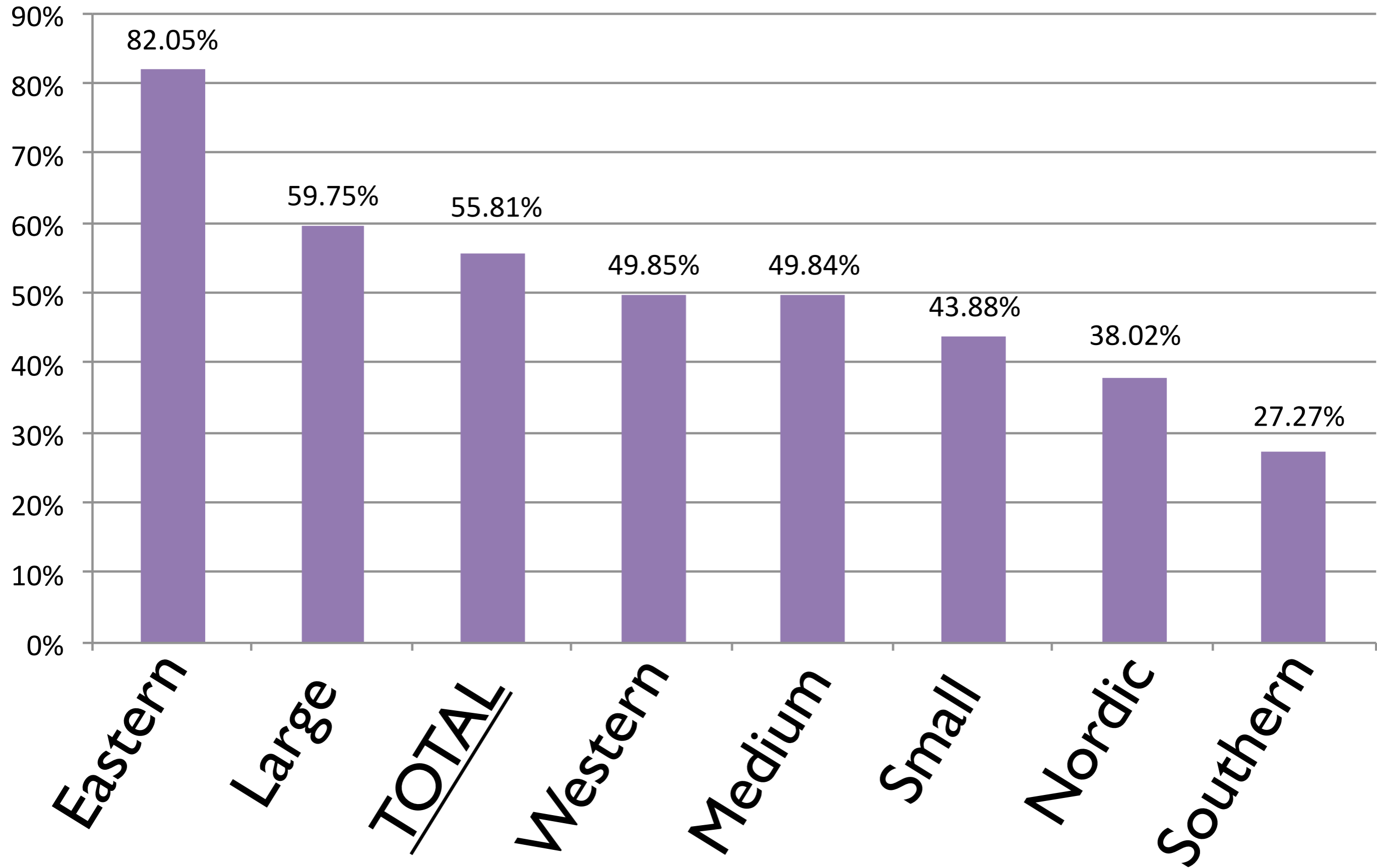


# Euro-IX IXP traffic

- Real time European member statistics
- Makes up around 90% of all European IXP traffic
- Weekday: Peak at 21:00 CEST; low at 05:45 CEST



# Categorised IXP annual peak traffic growth rates 2007 - 2008





# IXP participants

- 4.600 participants at 109 IXPs across Europe
- 2.500 of these have unique ASNs
- 700 ASNs present at > 1 IXP in Europe
- 21 ASNs present at 10+ IXPs in Europe
  - Average of 42 participants per IXP
  - Average of 600 Mbps per participant

# Euro-IX ASN DB

## Search the Euro-IX ASN Database

Enter an ASN, IXP or organisation name:

Query

AS2686

Search

Your search returned 18 results

<u>Organisation</u>	<u>AS number</u>	<u>IXP</u>
<a href="#">AT&amp;T Global Network Services Hellas</a>	<a href="#">2686</a>	<a href="#">AIX</a>
<a href="#">AT&amp;T Global Network Services</a>	<a href="#">2686</a>	<a href="#">AMS-IX</a>
<a href="#">AT&amp;T Global Network</a>	<a href="#">2686</a>	<a href="#">BIX</a>
<a href="#">AT&amp;T</a>	<a href="#">2686</a>	<a href="#">BNIX</a>
<a href="#">AT&amp;T EMEA</a>	<a href="#">2686</a>	<a href="#">CIXP</a>
<a href="#">AT&amp;T GNS Deutschland</a>	<a href="#">2686</a>	<a href="#">DE-CIX</a>
<a href="#">AT&amp;T</a>	<a href="#">2686</a>	<a href="#">Equinix</a>
<a href="#">AT&amp;T GNS</a>	<a href="#">2686</a>	<a href="#">ESPANIX</a>
<a href="#">AT&amp;T Global Network Services Oy</a>	<a href="#">2686</a>	<a href="#">FICIX</a>
<a href="#">AT&amp;T GNS</a>	<a href="#">2686</a>	<a href="#">LINX</a>
<a href="#">AT&amp;T Global Network Services</a>	<a href="#">2686</a>	<a href="#">MIX</a>
<a href="#">AT&amp;T</a>	<a href="#">2686</a>	<a href="#">Netnod</a>
<a href="#">AT&amp;T Global Network Services</a>	<a href="#">2686</a>	<a href="#">NIX</a>
<a href="#">AT&amp;T CR</a>	<a href="#">2686</a>	<a href="#">NIX.CZ</a>
<a href="#">AT&amp;T GNS - EMEA</a>	<a href="#">2686</a>	<a href="#">PARIX</a>
<a href="#">AT&amp;T GLOBAL NETWORK SERVICES</a>	<a href="#">2686</a>	<a href="#">SFINX</a>
<a href="#">AT&amp;T</a>	<a href="#">2686</a>	<a href="#">TOP-IX</a>
<a href="#">AT&amp;T</a>	<a href="#">2686</a>	<a href="#">VIX</a>

## Search the Euro-IX ASN Database

Enter an ASN, IXP or organisation name:

Query

KPN

Search

Your search returned 21 results

<u>Organisation</u>	<u>AS number</u>	<u>IXP</u>
<a href="#">KPN EuroRings B.V.</a>	<a href="#">286</a>	<a href="#">DE-CIX</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">VIX</a>
<a href="#">KPN Global Carrier Services</a>	<a href="#">N/A</a>	<a href="#">AMS-IX</a>
<a href="#">KPN International</a>	<a href="#">286</a>	<a href="#">LONAP</a>
<a href="#">KPN Mobile The Netherlands B.V.</a>	<a href="#">64595</a>	<a href="#">AMS-IX</a>
<a href="#">KPN Telecom</a>	<a href="#">286</a>	<a href="#">LINX</a>
<a href="#">KPN Telecom B.V. (ISP Infrastructuur)</a>	<a href="#">8737</a>	<a href="#">AMS-IX</a>
<a href="#">KPN Wholesale Service &amp; Op.</a>	<a href="#">286</a>	<a href="#">AMS-IX</a>
<a href="#">KPN Nederland</a>	<a href="#">1136</a>	<a href="#">BNIX</a>
<a href="#">KPNQwest Italia</a>	<a href="#">5602</a>	<a href="#">MIX</a>
<a href="#">KPN</a>	<a href="#">1136</a>	<a href="#">PARIX</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">FreeIX</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">INXS</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">INXS</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">N-IX</a>
<a href="#">KPN Eurorings</a>	<a href="#">286</a>	<a href="#">NL-IX</a>
<a href="#">KPN TELECOM BV</a>	<a href="#">286</a>	<a href="#">SFINX</a>
<a href="#">KPN Telecom</a>	<a href="#">286</a>	<a href="#">NDIX</a>

# Euro-IX News (I)

- 14th Euro-IX Forum - Prague last week (35 IXPs)
- 15th Euro-IX Forum - Rome 2 & 3 November
- 2008 report on European IXPs
  - ▶ Euro-IX public 'Resources' section
  - ▶ <http://www.euro-ix.net/resources/>
- Film competition: *The Internet Revealed*

# Euro-IX News (2)

- Assisting 'small' IXPs - less than 15 participants
- Remote IXPs - IXPs not likely to visit Europe
- 'Twinning' IXPs - Building relationships between member and developing IXPs
- Euro-IX IXP BCP - Nearing completion and will be made publicly available soon!
- Euro-IX Route Server database

# EUROPEAN INTERNET EXCHANGE ASSOCIATION

[HTTP://WWW.EURO-IX.NET](http://www.euro-ix.net)

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