

APRICOT 2009 - IX SIG MANILA, PHILIPPINES

EURO-IX UPDATE

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EURO-IX

APRICOT 2009 - MANILA PHILIPPINES - 24 FEBRUARY 2009

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

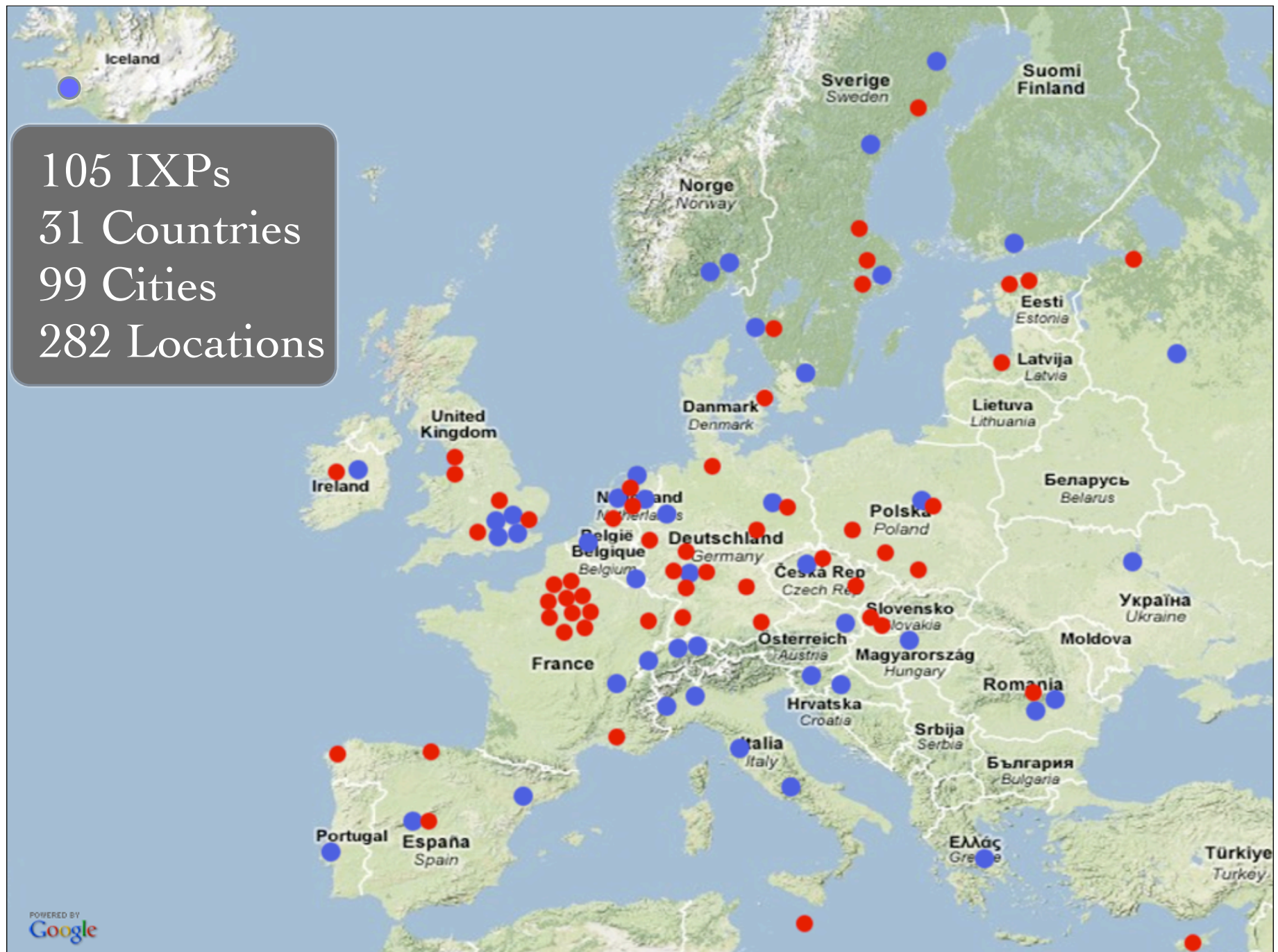
- 44 affiliated IXPs:
 - ▶ Europe: 36 (27 different countries)
 - ▶ Africa: Cairo, Egypt
 - ▶ Asia: 4 (Japan & Nepal)
 - ▶ United States: 3
- 8 affiliated patrons:

Brocade
Force10 Networks
Interxion

Cisco
Juniper Networks

Extreme Networks
Glimmerglass
TelecityGroup

105 IXPs
31 Countries
99 Cities
282 Locations



European IXP traffic 'hotspots'



*End January 2009 statistics

Top 20 IXPs: Traffic

- Top 20 IXPs make up 90% of total European IXP traffic

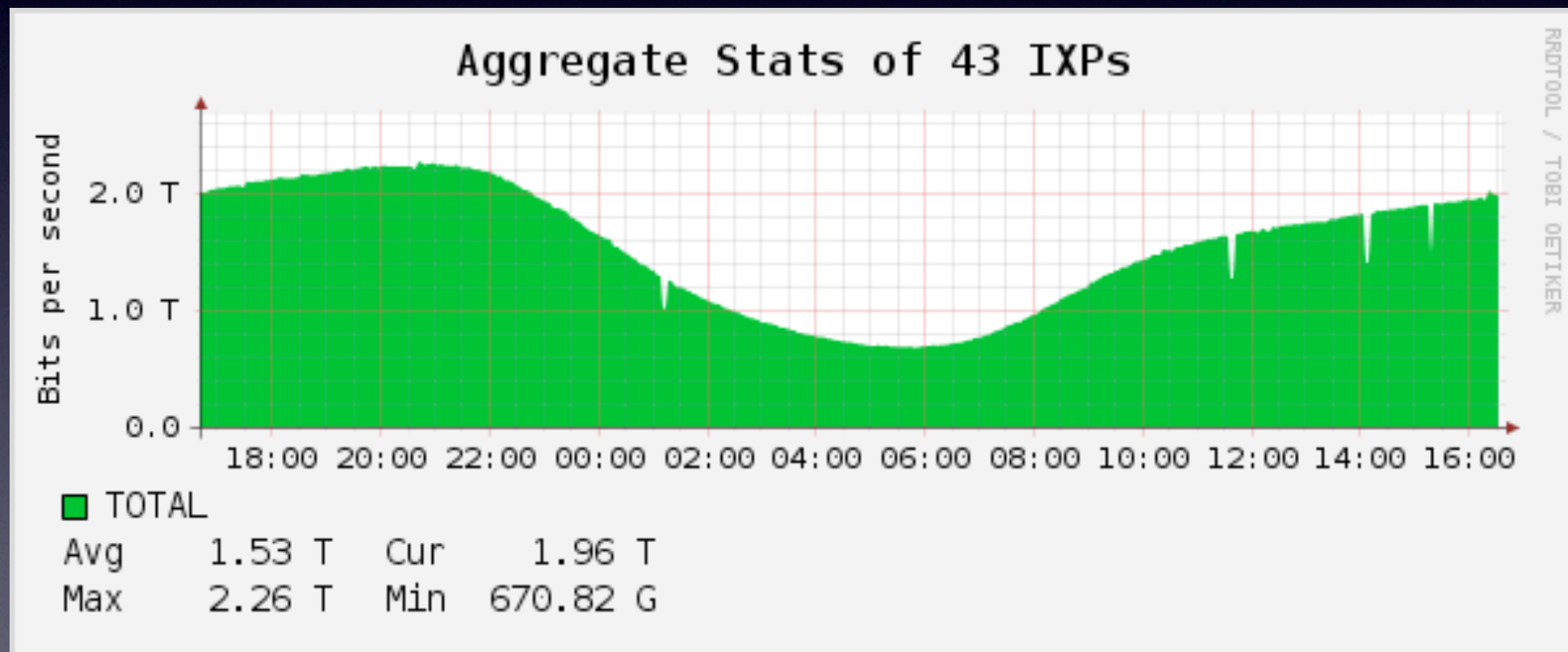
- Top 3 IXPs make up more than 57% (1.509Tbps) of total European IXP traffic

End of January 2009 traffic figures

Ranking	IXP	City	Gbps
1	AMS-IX	Amsterdam	633
2	DE-CIX	Frankfurt	499
3	LINX	London	377
4	ESPANIX	Madrid	128
5	Netnod	Stockholm	120
6	BIX	Budapest	101
7	NIX.CZ	Prague	74
8	PANAP	Paris	63
9	MSK-IX	Moscow	58
10	PLIX	Warsaw	49
11	NL-IX	Amsterdam	40
12	MIX	Milan	31
13	UA-IX	Kiev	31
14	Netnod	Malmoe	26
15	FICIX	Helsinki	23
16	VIX	Vienna	22
17	InterLAN	Bucharest	20
18	NIX	Oslo	19
19	SIX	Ljubljana	19
20	SIX	Bratislava	19
Total Traffic of top 20 IXPs			2351

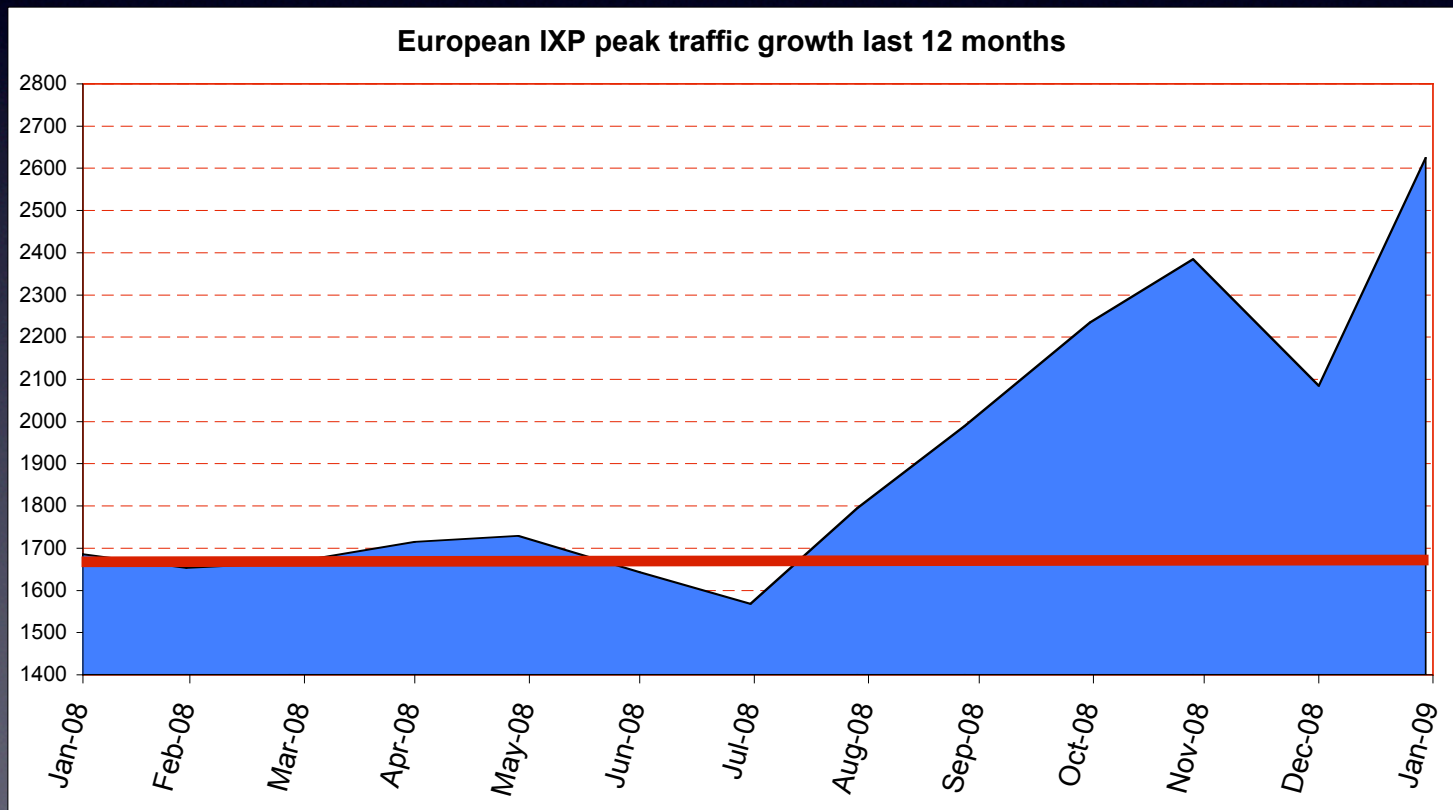
Euro-IX IXP traffic

- Real time European member statistics (43 IXPs)
- Weekday: Peak at 21:00 CET; low at 05:45 CET

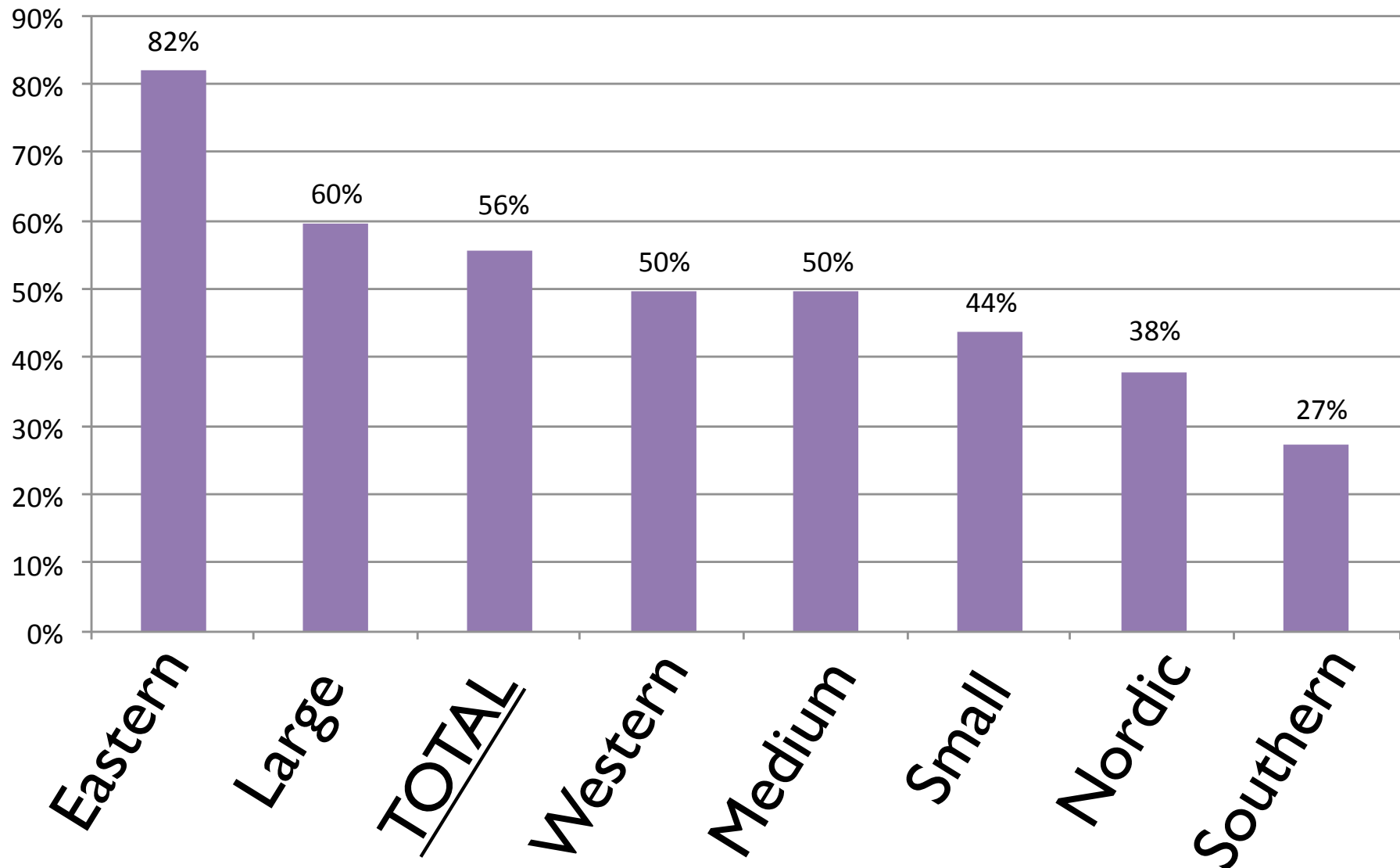


European IXP traffic

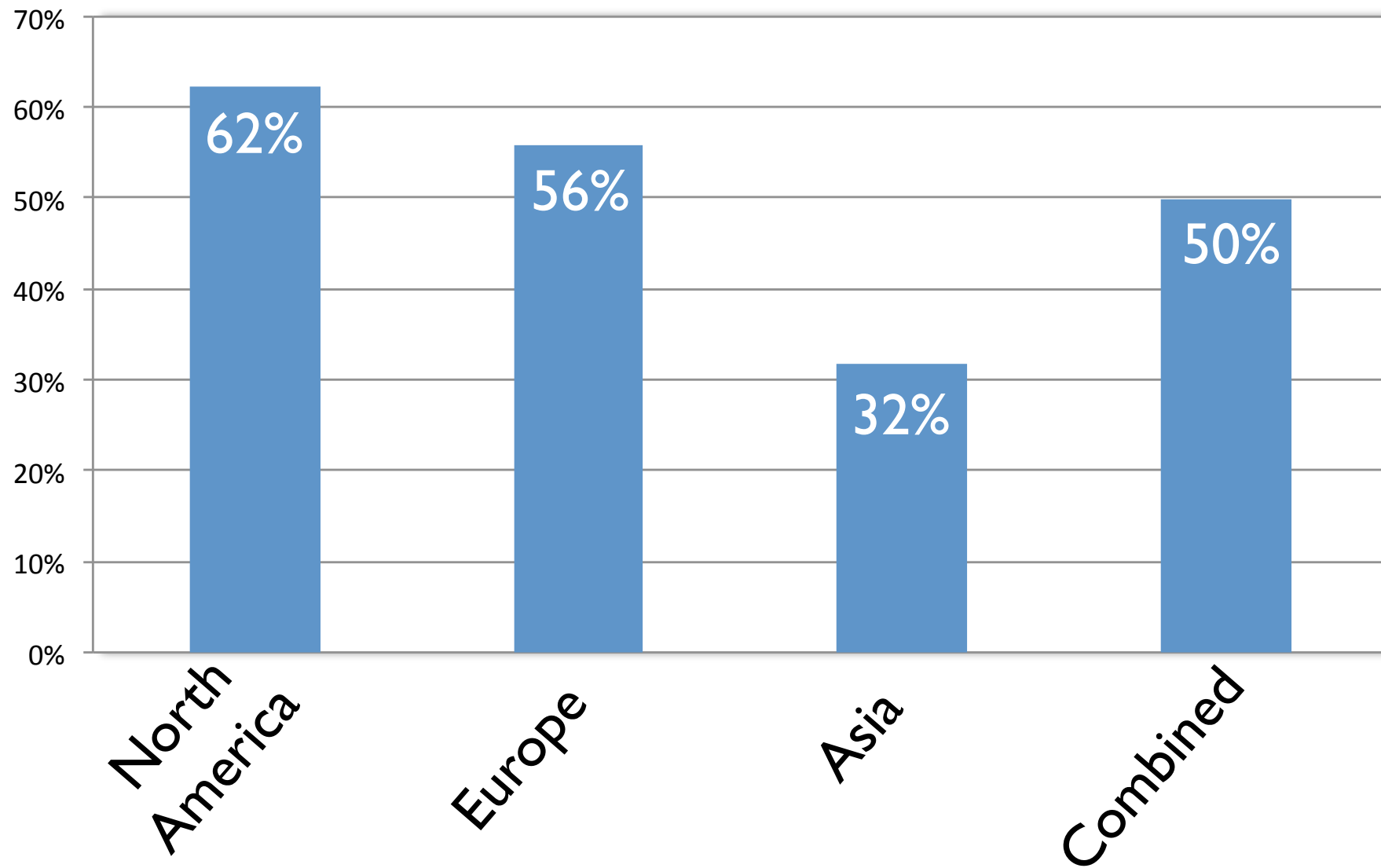
- Combined European IXP peak traffic has risen from:
 - 1.686 Tbps end Jan 2008 to 2.625 Tbps end Jan 2009
 - 939 Gbps or 56% increase in the past 12 months



Categorised IXP annual peak traffic growth rates 2008

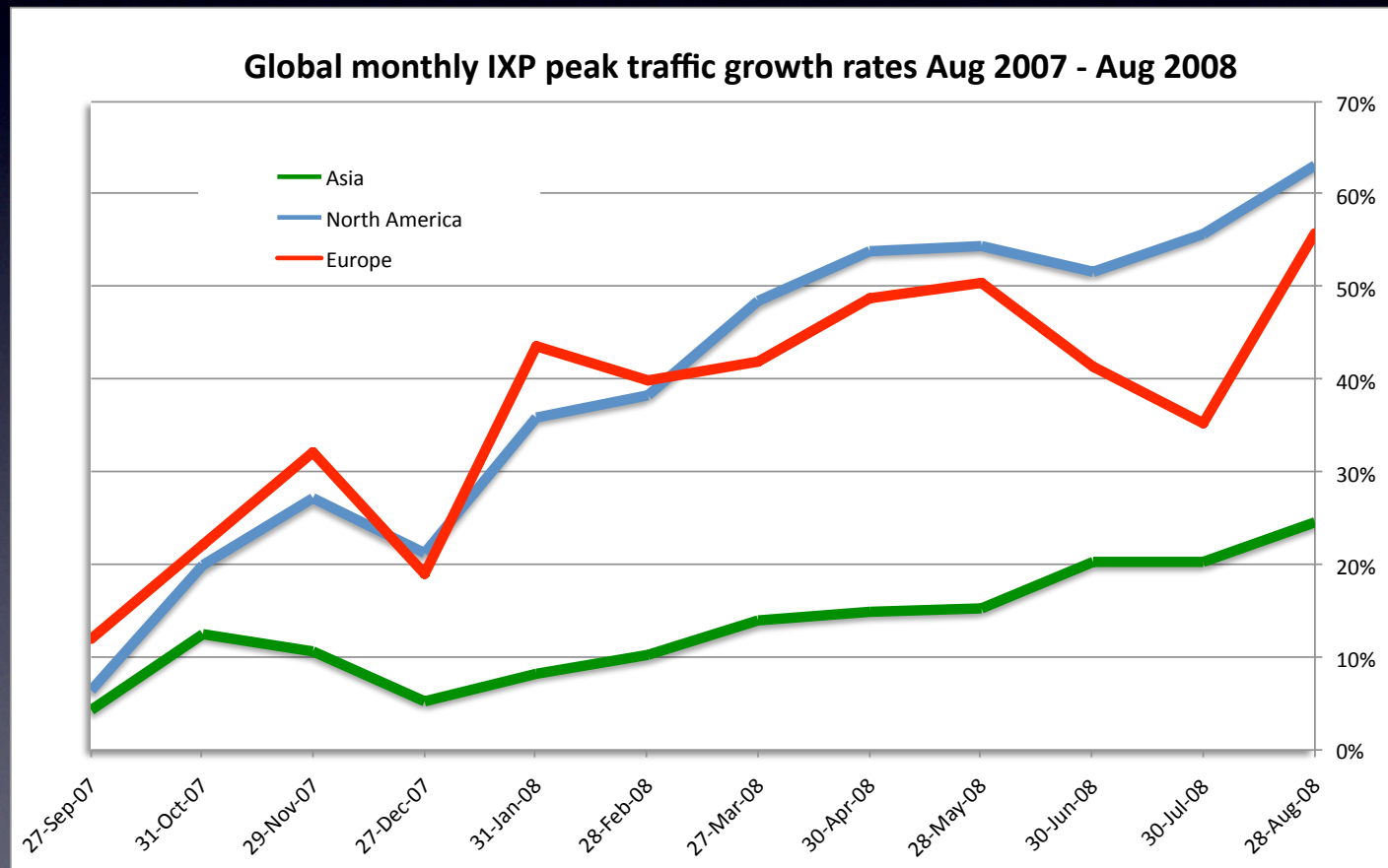


Global annual IXP peak traffic growth rates 2008



Global IXP comparison

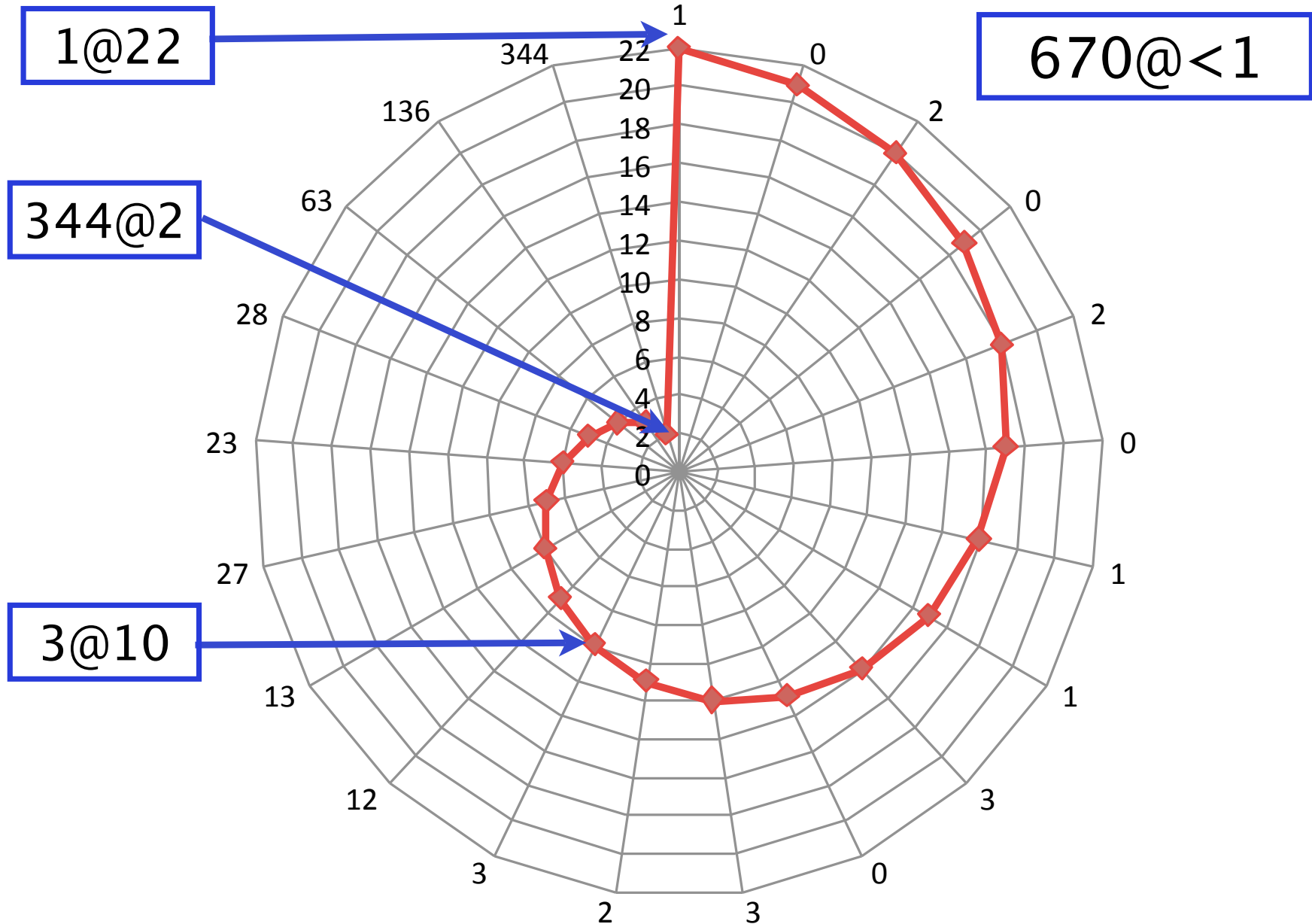
- US and Europe generally mirror one another, however Europe seems to be more reactive to Christmas/New Year & Summer vacations



IXP participants

- 4.400 participants at 105 IXPs across Europe
- 2.600 of these have unique ASNs
- 670 ASNs present at > 1 IXP in Europe
- 18 ASNs present at > 9 IXPs in Europe
 - Average of 42 participants per IXP
 - Average of 600 Mbps per participant

ASNs present at multiple IXPs



A bit more.....

- Upcoming Euro-IX meetings
 - 14th Forum: Prague, 27th & 28th April
 - 15th Forum: Rome, 2nd & 3rd November
- ASN DB now lists participants from about 80 European IXPs and also links to Peering DB
- Public resources section:
 - <http://www.euro-ix.net/resources/>
 - Report on European IXPs and comprehensive listing of European IXPs and their traffic statistics

EUROPEAN INTERNET EXCHANGE ASSOCIATION

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

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