

The \$1,000 Internet Exchange

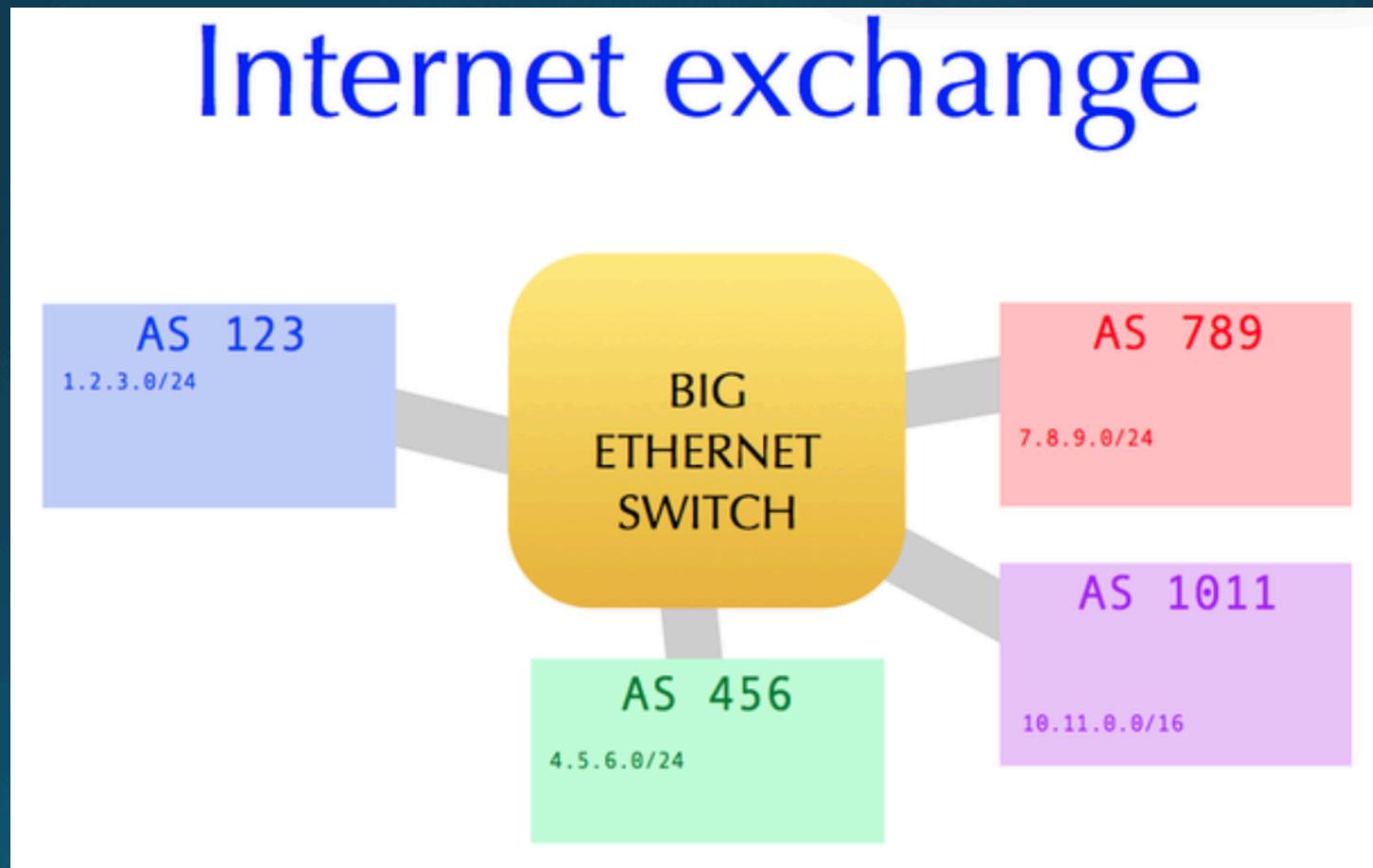


RIPE 70 Lightning Talk
Amsterdam, May 11th, 2015
Remco van Mook

Before we start

- This is a work in progress
- There's a big difference between setting up a new exchange from scratch and 'parachuting in' a satellite of an existing exchange
- Looking to come to a full presentation / blueprint after the summer
- Input wanted

This morning at the BGP tutorial...



The origin of IXP hardware



The current generation



What to do if you're a new IXP?

- Established IXPs:
"Here's a pile of equipment. You have no local traffic? No problem! We can run one for you too, if you'd like."
- The ITU:
"IXPs are really complex equipment."
- Your local network:
"I want a real Internet connection! Because scale! Because peering! Because it affords us the best peering lights!"

What really to do if you're a new IXP

1. Market Research.
2. Build a community.

I know, that sounds a bit dull. So I've done the first bit for you!

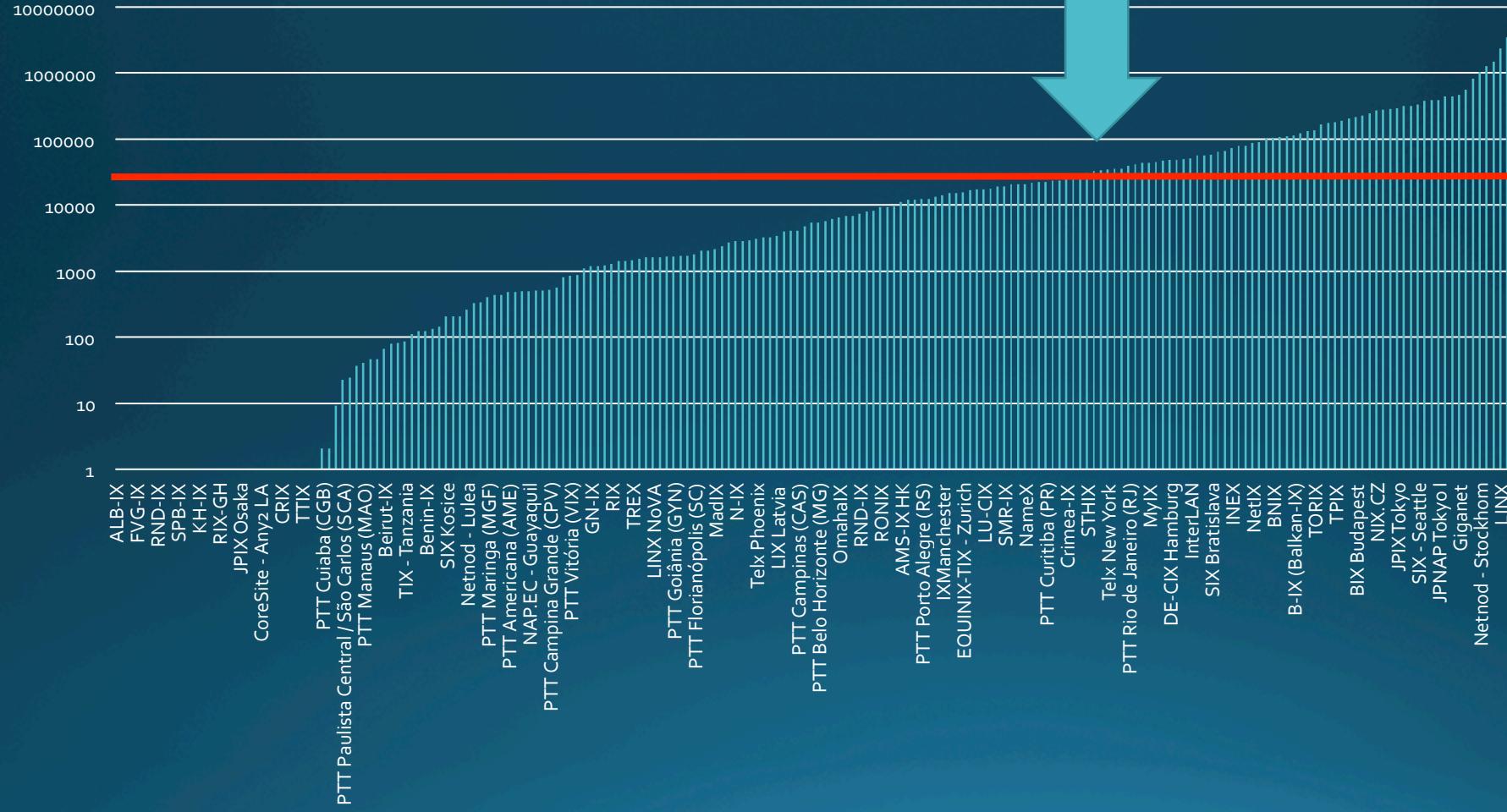
Market Research

- Data from Euro-IX, covering 204 IXPs from all over the world
- Data from December 2014 – tradeoff between recent vs complete
- Some dead/defunct/struggling IXPs
- How much traffic should a starting IXP expect/design for?

Peak traffic on IXPs

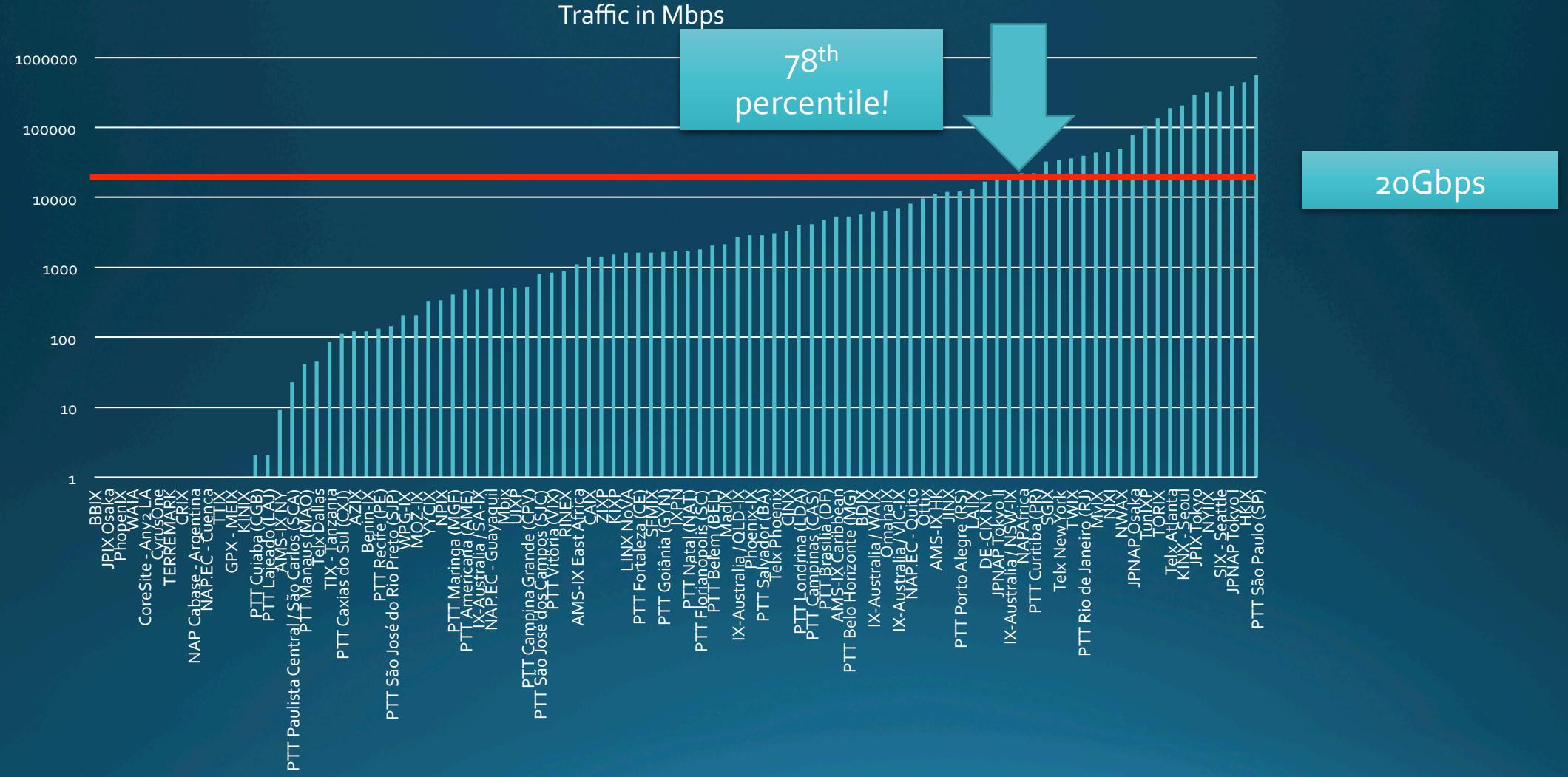
66th
percentile!

Traffic in Mbps



20Gbps

Peak traffic on IXPs (excluding Europe)



Market Research Conclusion

If you manage to get 20Gbps of traffic on a new IXP

It's time to go to the pub*

And when you're sober again, start thinking about scale.

Until then...

* replace with local way of celebrating as required

Paradigm for new IXPs

1. First, grow to scale.
2. Then, scale to grow.

Paradigms for helping new IXPs

1. Sponsor meeting rooms, not big gear
2. Facilitate LOCAL community building
3. Give them YOUR international contacts

Requirements List

- Capable of 20Gbps peak, 8Gbps average traffic
- 20-30 ports
- 10Mbps, 100Mbps, 1Gbps, multiple 1Gbps
- Portal/website
- Quarantine VLAN
- Route server
- Arpwatch

What hardware do YOU need?



\$279.95



\$545.96



\$150.00

\$975.91

Comments?

Please come see me this week or send e-mail!

With special thanks to Euro-IX for providing IX traffic data!

Remco van Mook

remco.vanmook@gmail.com