

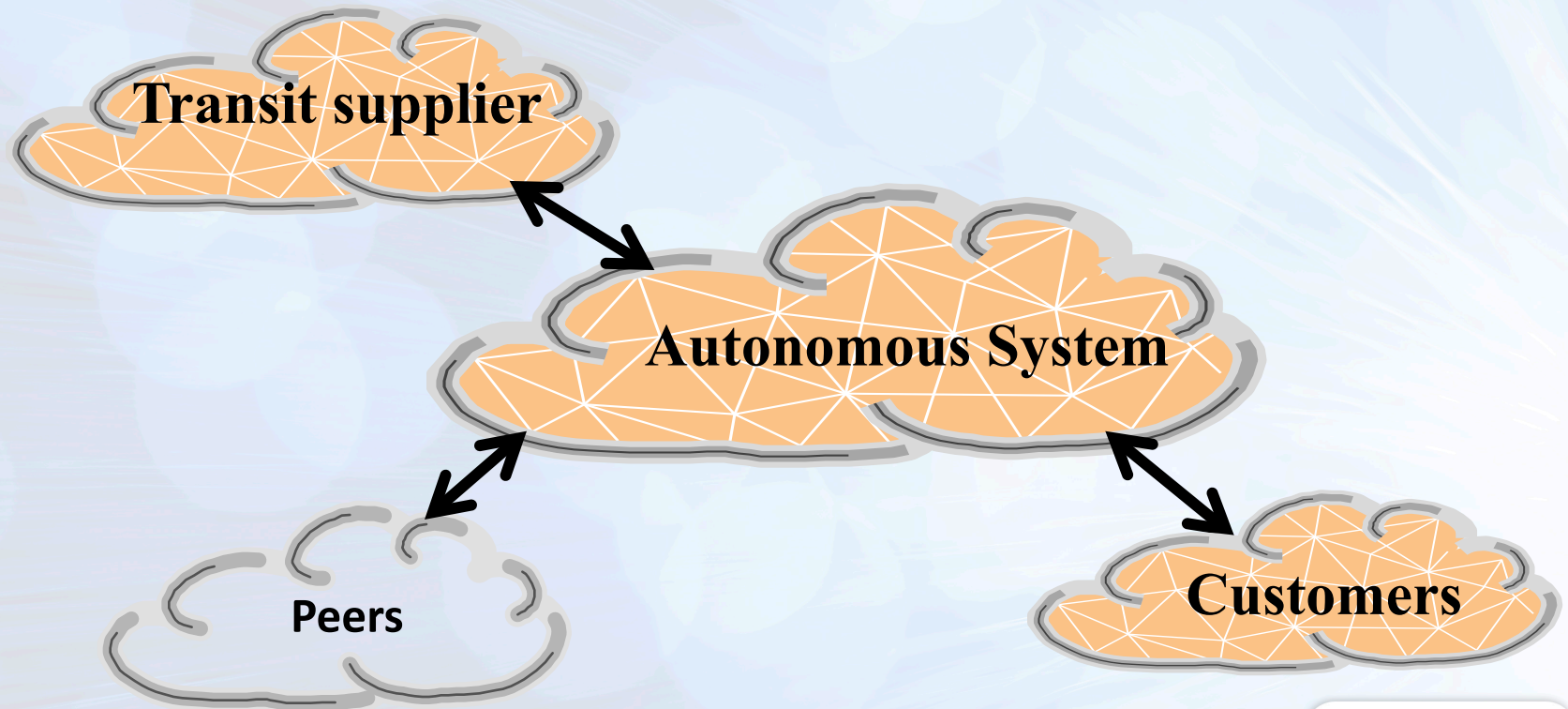
Peering

An Internet story

Whoami?

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 - Peering AS1136
 - Peering AS286
 - Product manager IP Transit AS286
 - Internet and Peering strategist at NL-ix

Internet Relations



What is Peering

- <https://en.wikipedia.org/wiki/Peering>
 - In [computer networking](#), **peering** is a voluntary interconnection of administratively separate [Internet networks](#) for the purpose of exchanging traffic between the users of each network. The pure definition of peering is [settlement-free](#), "bill-and-keep," or "sender keeps all," meaning that neither party pays the other in association with the exchange of traffic.

Why Peer

- Transit is easy And cheap (in some regions)
- Why Peer?
 - Control
 - Performance (end user experience)
 - Cost
 - Independence

Why Peer? (2)

- Control
 - Direct BGP session with an ASN gives you more control on influencing traffic.
- Performance
 - Peering helps to improve end-user experience by removing ASN hops and shorter paths.
- Cost
 - With peering you can save on your transit cost as peering is usually settlement free.
- Independence
 - No relying on somebody else making routing decisions

How to peer?

- Now we know what peering is how to do it?
 - Public
 - Internet Exchange
 - 1 ASN to x ASN
 - Private (pni)
 - cross connect
 - 1 ASN to 1 ASN
 - Paid
 - Can be public, usual private

Where to peer

- Select a datacenter:
 - Criteria:
 - IXP
 - Carriers
 - Mix of potential Peers (CDN, ISP and Cloud)
 - Cost
- PeeringDb / internet / Datacenter listings

How to select the right IXP?

- IXP al limited to metro area
 - i.e. Amsterdam, London, Paris and Frankfurt.
 - Exceptions NL-ix, ECIX and France-ix are available and reachable in multiple cities.
 - Equinix, Netnod, NIX CZ/SK, AMS-IX, LINX and DE-CIX and many others are in multiple cities.
 - How to determine if you can improve end-user experience and save on transit cost?

Sflow / Netflow / IPFIX

- Various tools are available
 - Off the shelf (Arbor, Kentrik,...)
 - Homebrew (PMACT, ...)
 - Depending on budget and time you choose.

ASN information

- You got the tool running and start receiving information about:
 - Source networks
 - Destination networks
 - Now the fun begins to start comparing your highest traffic ASN with Peeringdb or member list of IXP or euro-ix/IXF database.

Peering game

- You know the ASN you want to peer with.
- You selected an IXP
- How to get there?
 - Use remote peering providers
 - Select a datacenter and deploy equipment
 - Single backhaul?
 - Redundant?
 - Capacity planning
- Develop a Peering strategy!!!

How to get peering?

- Start contacting your wanted peers.
 - Email > mail peering@<company>
 - Visit peering forums / RIPE / ISOC meetings / local events / IXP meetings.
 - Then the fun begins

Talk !

- Sending e-mail is easy but peering@ is not always responsive.
- Phone is not solution
- Meetings!!!
 - More and more events start with meeting tools making it easy to meet and start talking.
 - Social time is also great moment to meet.
 - Coffee break, lunch, diner and organised social events.

Prepare

- Avoid wasting each others time.
 - Is there a peering policy
 - If yes you can try
 - How much traffic between the ASN
 - Do you have options to tune your traffic?
 - Depreffing a peer in favour of an other
 - Timely setup after an ok to peer

That's it

- Simply or complicated ?
- Questions?
- Feedback?

- Thank you !!