Peering Negotiations at MENOG

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disclaimer: all opinions are all mine
Peering Principles

● 99.5% of all Internet peering is done by "handshake" (source: PCH, 2011)
● Peering is unregulated (almost) worldwide
● Peering arrangements are made voluntarily based on mutual benefit
● If there is no peering in place, all of the Internet is reachable via transit

The Internet has successfully scaled for >20 years without regulation:
● 8 orders of magnitude increase in traffic
● 5 orders of magnitude decrease in unit price

"That will be $0.0000008 for IP transit, or 100,000x more for voice please"

Source: OECD
Benefits of Peering

- **For users:**
  - Lower latency
  - Higher reliability
  - Better performance

- **For network operators:**
  - Lower costs
  - Higher reliability
  - More predictable routing
  - Better performance for customers
  - No third parties involved
  - Mutually beneficial relationship with partner
Who are peering managers?

- IP engineers
- Network planners
- CTOs
- Sales people
- Marketing
- ...
Prerequisites for Peering

Technical requirements for Peering:

- Public AS in use
- Public IP address block in use
- Register your AS on [www.peeringdb.com](http://www.peeringdb.com)
- Presence at a mutual location
  - IX or private peering location
How to Peer

1. Define your objectives
2. Book a meeting
3. Have a meeting at MENOG, discuss peering
4. Set up the peering
5. Profit!
1. Decide on your objectives

Who should I meet and why?

MENOG attendees include:

- Network Operators
  - your competitors
  - similar operators in other countries
- Internet Exchanges, both local and global
- Content Providers and CDNs
- Hosting Providers and datacentres
- Educational institutions
- Regulators and government officials
Who should I peer with?

- Check your traffic volumes
  - Netflow/Sflow analysis
  - Proxy and cache logs
  - Ask the other network...
- Look for key local content and access providers
- Review
  - lists of members at Internet Exchanges
  - lists of operators in facilities
- Check the other party’s peering policy
Where to peer?

- **PeeringDB.com** has
  - List of all networks and where they peer
  - List of all facilities and who is there
  - List of all IXPs, where they are and who peers there
2. Find a delegate to meet with

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3. Have a meeting!

- Peering is built on *relationships*
- Make sure you understand each other’s objectives, costs, and benefits
- Find a mutually agreed place to peer
- Agree action items and next steps
**Negotiating Peering**

How to encourage someone who doesn’t want to peer with you, to peer with you?

- Exchange lots of traffic (e.g. host content on your network if they are an eyeball network)
- Find another location to peer in, that works for both sides
- Buy another operator who already has peering
- Leverage a broader business arrangement
- Make friends
  - Buy them tea/juice/dinner... :-)


5. Set up the peering (the easy part)

router bgp 12345
  neighbor 2001:1:2:3:4:1:5169:1 remote-as 15169
  address-family ipv6 unicast
Conclusions

Do your research, then...

1. Define your objectives
2. Meet some potential peers
3. Exchange ideas, details, agree to set up peering
4. Set up peering
5. Enjoy better performance, and lower costs!
AS15169, AS36040, AS43515

https://isp.google.com/iwantpeering
https://isp.google.com/iwantggc/

We peer in most peering locations around the world

Your contact for Gulf/Middle East region is tvolmer@google.com