Peering Negotiations at AfPIF

Thomas Volmer
disclaimer: all opinions are all mine
Peering Principles

- 99.5% of all Internet peering is done by "handshake"
- 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
● Presence at a mutual location
  ○ IX or private peering location
How to Peer (using AfPIF Meeting Maker!)

1. Define your objectives
2. Register for the Meeting Maker site
3. Book a meeting
4. Have a meeting at AfPIF, discuss peering
5. Set up the peering
6. Profit!
1. **Decide on your objectives**

Who should I meet and why?

AfPIF 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. Register for Meeting Maker site

http://afpif2015.meetingtool.net/

Hello Thomas Volmer,

You are receiving this message because you have been signed up with the MeetingTool for the event African Peering and Interconnection Forum 2015!
3. Find a delegate to meet with

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<tr>
<th>Name</th>
<th>Title</th>
<th>Company/Institution</th>
<th>Actions</th>
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<tr>
<td>Mohamed Tangasawi</td>
<td>Director Carrier Relations and Regulatory</td>
<td>Zain Sudan</td>
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<td>Bakarr Tarawally</td>
<td>Director of Communications</td>
<td>Ministry of Information and Communications</td>
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<td>Andre Terreiro</td>
<td>Head of IT &amp; Core Data Network</td>
<td>Vodacom Mozambique</td>
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<td>Vymala Thuron</td>
<td>Communications PR and Marketing Manager</td>
<td>African Network Information Center (AFRINIC)</td>
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Options: Visit Profile, Invite, View Schedule, Write Message
4. Have a meeting!

- Your meeting location is in your schedule
- 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 beer/juice/dinner... :-)

for more negotiating approaches, see the “Peering Playbook”
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. Sign up for the Meeting Maker tool
3. Meet some potential peers
4. Exchange ideas, details, agree to set up peering
5. Set up peering
6. Enjoy better performance, and lower costs!