Peering Beyond Australia and the MLPA

Matthew Moyle-Croft
Peering Manager, Internode (AS4739)
mmc@internode.com.au
Internode Peering

7 countries, 18 (soon 19) peering points,
>65% weekly avg inbound
What is Peering?

Peering - we exchange our routes (incl customer)

Multilateral - one BGP connection per IX
Bilateral - one BGP connection per peer
What is Peering?

• Peering is a commercial not technical relationship
• What is good for you may not be for them
• Understanding their strategy is important
• Often peering people have a technical background
Australian Peering

• Characterised by public MLPA with few exchanges
• “Gang of Four” don’t generally peer outside of their arrangement
• Small amounts of private peering beyond that
• Leads to a fairly boring peering landscape
MLPAs - Good and Bad

• Good for “bootstrap” - get instant result when you connect

• Australian model adds extra AS hop - fine if all you do is MLPA, not if you don’t

• Lack of route control becomes an issue further from home

• Removes direct contact with peers
So, you’ve decided to buy some cheap (!) submarine capacity and build out offshore.

What do you need to know?

Peering can be a part of the build out strategy.
Peering vs Transit

• Do you really want to peer or even build POPs?
• Transit is cheap, easy in the US
• DrPeering.net reports transit in the US$5/Mbps range from Tier 1 for GigE. Good Tier 2 for even less! (*)
• Good Tier 2 has peering relationships and sharp pricing for bulk.

(*) [http://drpeering.net/a/Peering_vs_Transit___The_Business_Case_for_Peering.html](http://drpeering.net/a/Peering_vs_Transit___The_Business_Case_for_Peering.html)
Where?

- Build in very connected place eg. US West Coast
- Market Post Tower (SCCN Access Point)
- One Wilshire
- Equinix LA / Silicon Valley
- Places that have lots of connectivity options!
Peering Points West Coast USA

- PAIX Palo Alto - 529 Bryant, Market Post Tower
- Equinix Los Angeles - Equinix LA sites
- Equinix Silicon Valley - Equinix Silicon Valley sites
- Any2 California - MPT, One Wilshire (MLPA opt)
- Seattle IX (SIX) - PAIX Seattle, Westin Building
- LAIX - Telehouse LA
Peering Policies

- Open - ask and I’ll peer
- Selective - will mostly peer but may have some rules - eg. won’t peer with customer of existing peer or number of common points etc
- Restrictive - usually not or have very high bar
- What’s yours?
Who Will Peer?

• Who do you see traffic to/from?
• Who will peer with you?
• Do you match their policy?
• Be realistic - not everyone will
• How do you find peers and they find you?
### Global System Statistics

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<thead>
<tr>
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<th>Value</th>
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<tr>
<td>Total Peering Networks</td>
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<tr>
<td>Total Public Exchange Points</td>
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<tr>
<td>Total Unique Public Exchange Presences</td>
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<td>Total Private Facilities</td>
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<tr>
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### Last 15 Updated Participants

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<tr>
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<th>ASN</th>
<th>Date Last Updated</th>
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<tbody>
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Common peering policy requirements:

- Min number of common sites - 2 or greater
- Geographic - number of countries/regions
- Traffic volumes - different for public/private
- Ratios - inbound vs outbound
- Numbers of customer AS/prefixes
Approaching Peers

• Email complete information (company, AS, peering points you’re at and details, NOC details, AS-SET)
• Include a small intro about the company and what you do
• Be honest and polite. Don’t lie. Make it easy.
• If they have a peering policy, include any relevant info - eg. traffic levels
Strategy

- Strategy - cost vs performance
- Peering with everyone who will, up front, gives you quick Mbps
- May affect long term success as traffic levels to larger transit providers reduced
- Peering with Asian carriers in the US - easy usually but can affect latency
References

- Find Peers - [http://peeringdb.com](http://peeringdb.com)
- Peering Information - [http://drpeering.net](http://drpeering.net)
- Routing Registry - [http://radb.net](http://radb.net)
Thanks!
Questions?