Peering Beyond Australia and the MLPA

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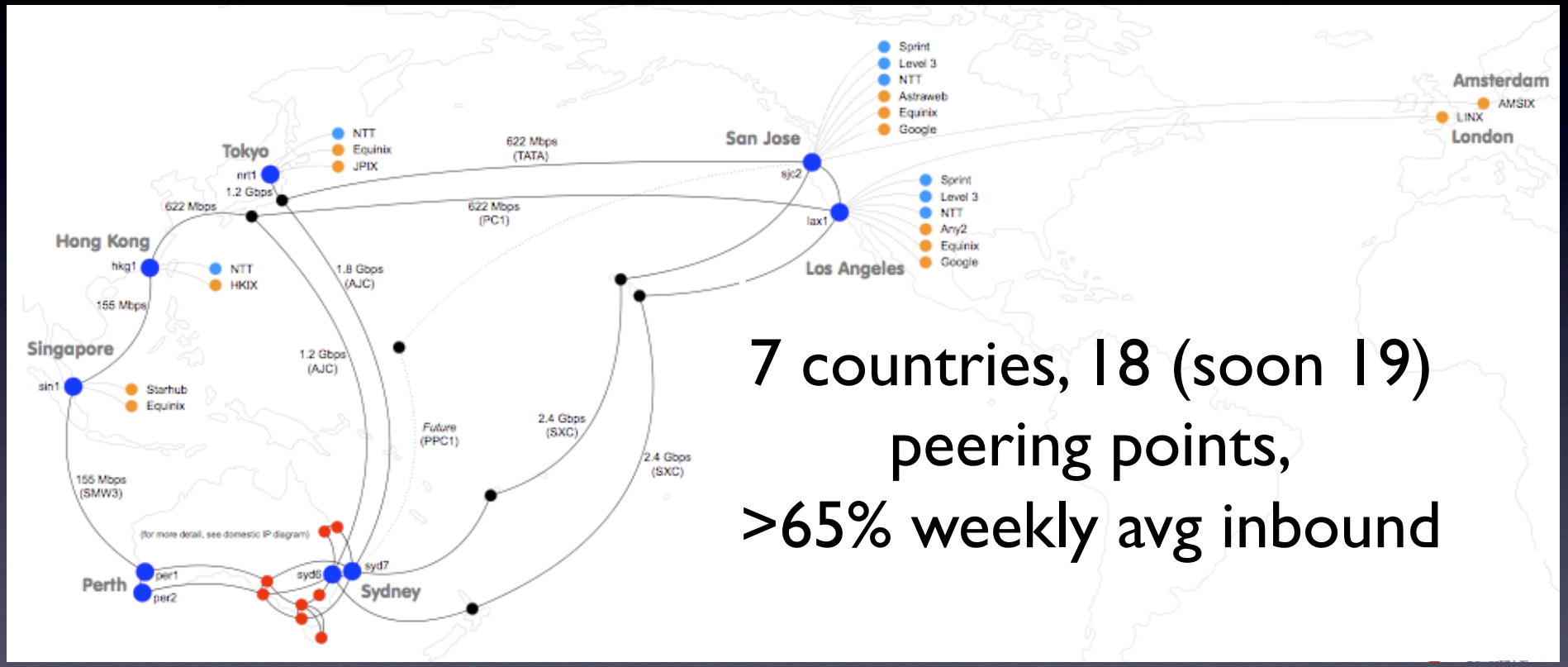
Internode Peering



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

Going Offshore

- 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

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
- LAIIX - 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?

Peeringdb.com

Navigation
- Home Page
- Logout

Your Records
- Peering Record
- User Account

Search Records
- Networks
- Exchange Points
- Facilities
- Common Points

Suggestions
- Comments
- New Exchange
- New Facility

Help
- FAQ
- Statistics

Global System Statistics

Total Peering Networks	1962
Total Public Exchange Points	270
Total Unique Public Exchange Presences	6531
Total Private Facilities	557
Total Unique Private Facility Presences	4880

Your User Account Status

Account Login	guest
Access Level	Level 1 (Read-Only A
Peering Record	

Last 15 Updated Participants

Company Name	ASN	Date Last Updated
Timico Limited	8607	8/27/09, 09:59:49 AM GMT
Bayan Telecommunications Inc.	6648	8/27/09, 08:41:49 AM GMT
OC3 Networks	29761	8/27/09, 08:37:30 AM GMT
Hurricane Electric	6939	8/27/09, 01:13:43 AM GMT
BitGravity, Inc.	40009	8/27/09, 01:05:38 AM GMT
BurstNET Technologies, Inc.	21788	8/27/09, 12:39:24 AM GMT
GlobalConnect a/s	42525	8/26/09, 10:21:11 PM GMT
InfoRelay Online Systems, Inc	33597	8/26/09, 09:56:12 PM GMT
ARP Networks, Inc.	25795	8/26/09, 08:00:29 PM GMT
Comcast	7922	8/26/09, 05:25:33 PM GMT
Steadfast Networks	32748	8/26/09, 04:48:57 PM GMT
Pandora Media, Inc	40428	8/26/09, 04:42:46 PM GMT
Tinet	3257	8/26/09, 02:11:33 PM GMT
HanseNet	13184	8/26/09, 01:01:29 PM GMT

Peering Policy

- 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
- Peering Information - http://drpeering.net
- Routing Registry - http://radb.net

Thanks!

Questions?