

IPv4 Address Market: Who Are the Buyers?

Lee Howard

Motivations

- If TCO of CGN drives networks to buy addresses, how high will demand be?
- Look at ISPs, Content Providers, CDNs

Methods

- Four largest U.S. ISPs
- Download of RouteViews table
 - For each $\$ASN$ `grep "i $\$ASN$ "`
 - for each $\$prefix$ `grep $\$prefix$ arin_db.txt | grep OrgName`
 - Visual grep of OrgNames.
 - Exclude customer routes
 - Include subsidiaries, e.g. Verizon, MCI, WorldCom, UUNET, ANS, GRIDnet...
- Customer numbers and growth rates from company Annual Reports

ISPs

	AT&T	Comcast	TWC	Verizon
Addresses Routed	80 million	70 million	30 million	28 million
Internet Customers	34 million	18 million	10 million	16 million
2011 Growth	-5 million	1.1 million	500,000	100,000
Runout	Never	35 years	10 years	1 year

Excludes:

- Voice and video customers, which may not need public addresses
- Commercial and Wireless businesses.
- Verizon Business (AS701), 25 million

Methods

- Choose sites with reputation for growth
- ARIN Bulk Whois
 - `grep -i foo -A 2 arin_db.txt | grep NetRange`
 - Parse NetRange, calculate number of addresses

Content

- Google 640,000
- Facebook 17,000
- Netflix 8,000
- Akamai 4,900,000
- Amazon 3,500,000
- Microsoft 560,000 (ex. Nortel?)