

Interpreting the 2008 Peering Survey

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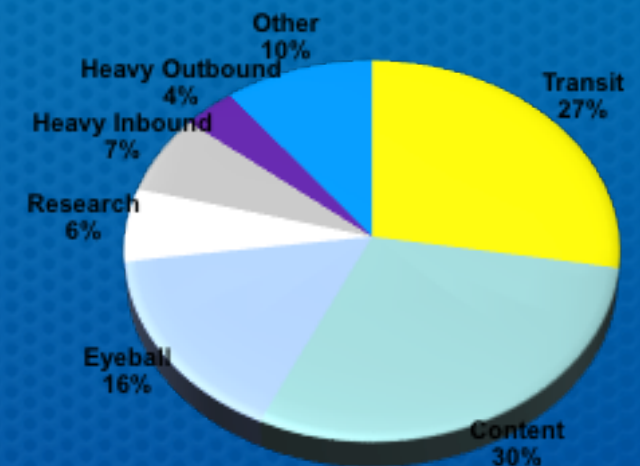
Research by: Greg Hankins (Force 10), Ren Provo (Comcast), Tom Scholl (AT&T)

What was it?

- ✦ New survey on how people configure peering
 - ✦ Technical questions on protocols and features
 - ✦ No personal or identifying information collected
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- ✦ 193 people started to respond, 153 answered all questions.
 - ✦ <http://www.twoguys.org/~gregh/peering-survey-2008/peering-survey-2008-results.pdf>

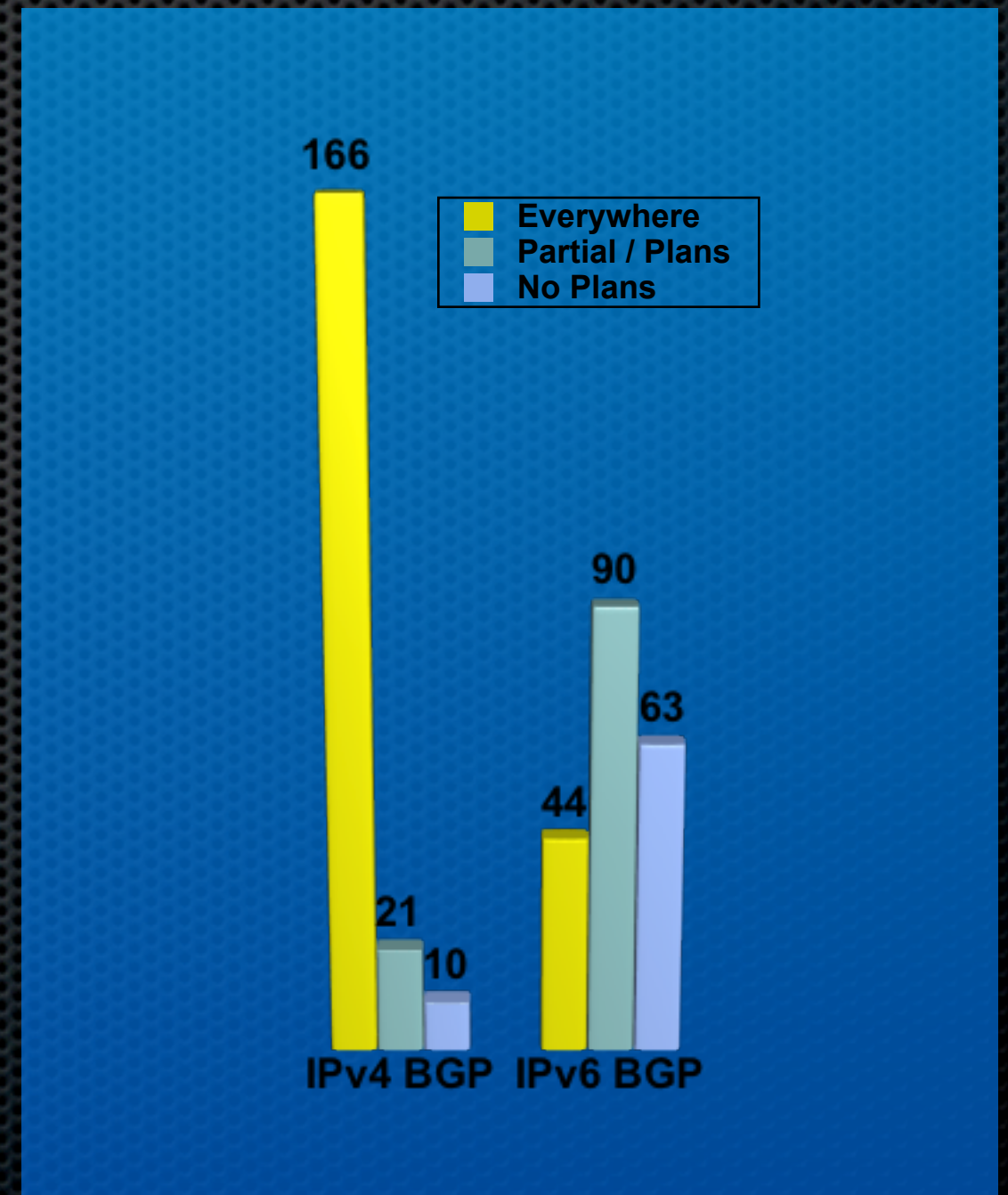
Who answered

- ✦ Responses from across the peering community received



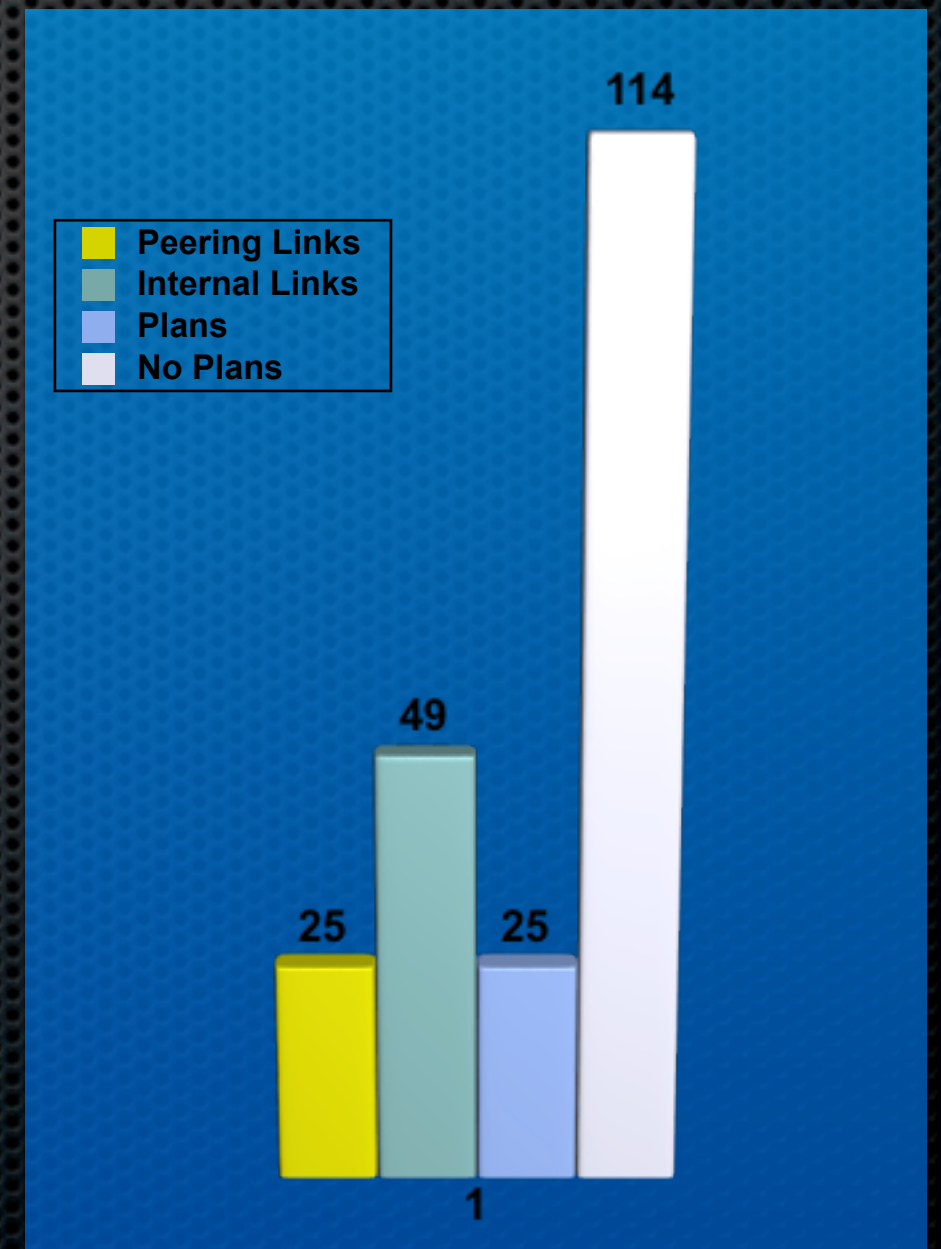
IP Unicast peering

- ✦ Encouraging to see 90 respondents looking to deploy ipv6 across their network edge soon.
- ✦ Finally! ~2 years from IANA ipv4 pool exhaustion.

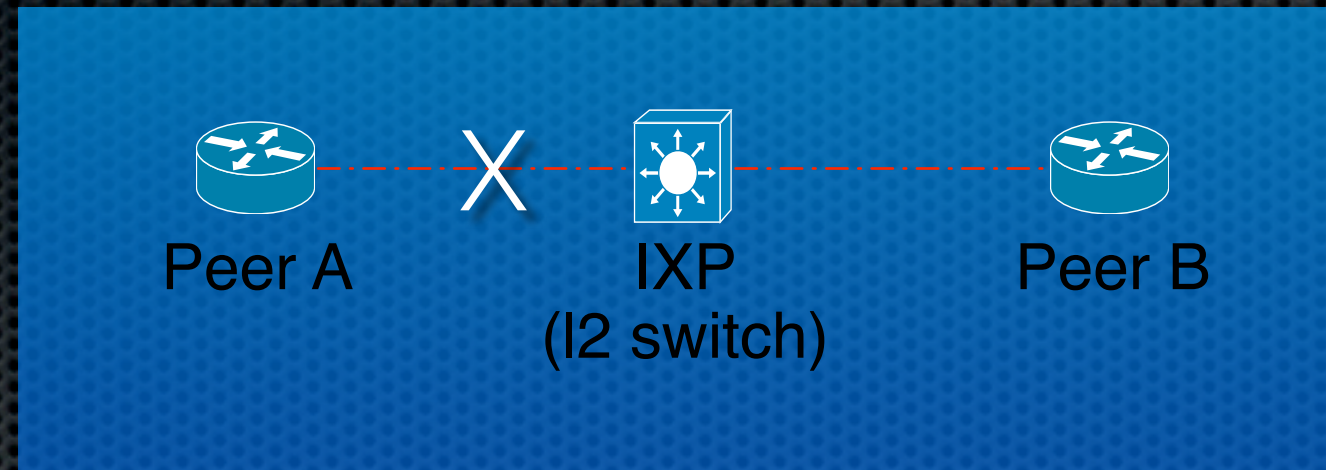


BFD

- ✧ Some thoughts that it's not widely deployed as people unsure what it is.
- ✧ Reduces path failure detection times.
- ✧ Routing protocol agnostic (to a degree)
- ✧ Faster reconvergence time



Example



- ✦ Peer A breaks connection to IXP.
- ✦ Peer B doesn't tear down session until timers expire (link stays up).
- ✦ BFD would trigger faster failure detection

Timers

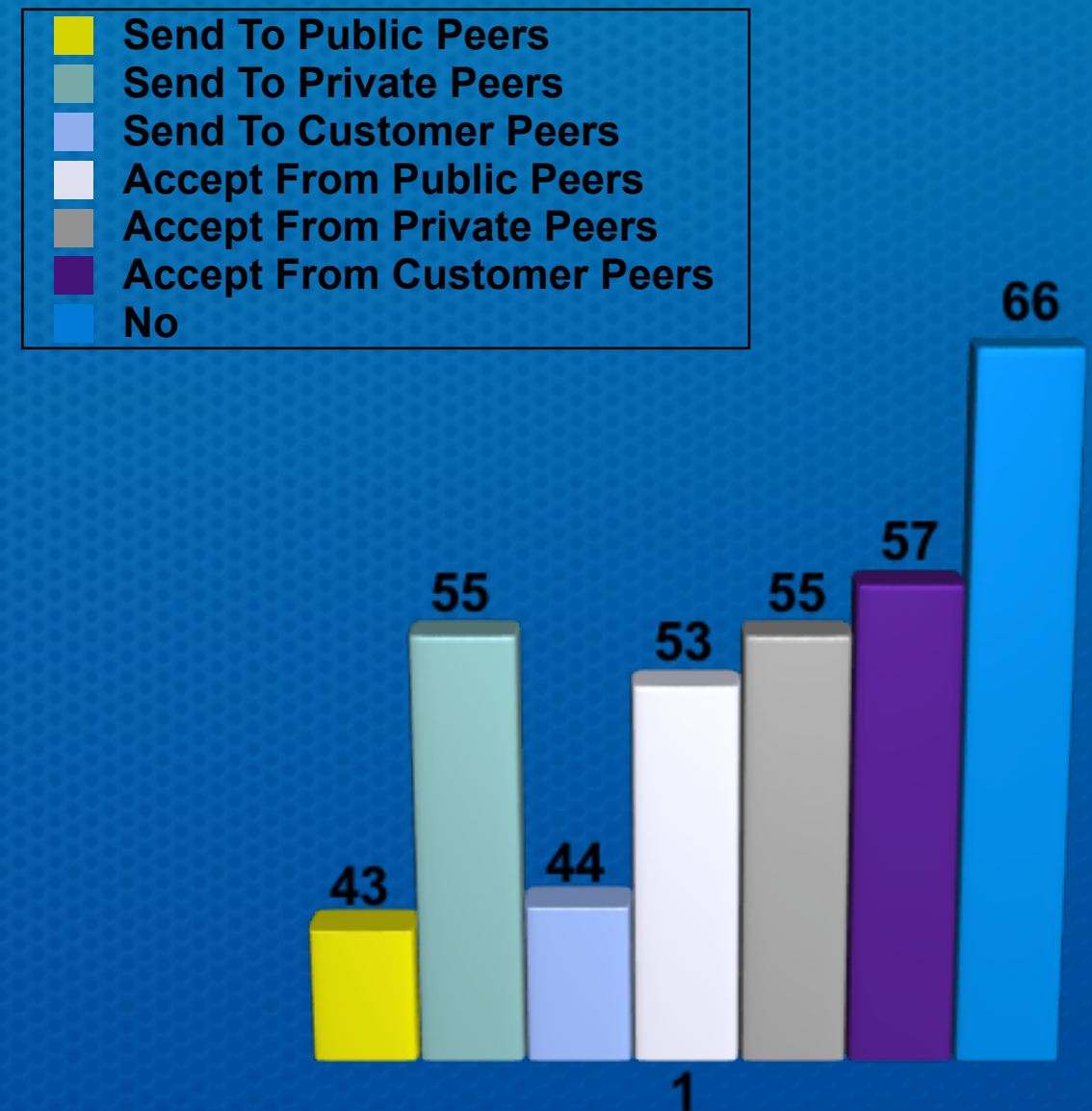
- ✦ If you don't/can't support bfd, interested to hear from people who have tried varying timers for ebgp sessions

e.g. neigh x.x.x.x times 5 15

- ✦ Peers may reject sessions if Hold timer too low.
- ✦ May increase control-plane busy-ness.

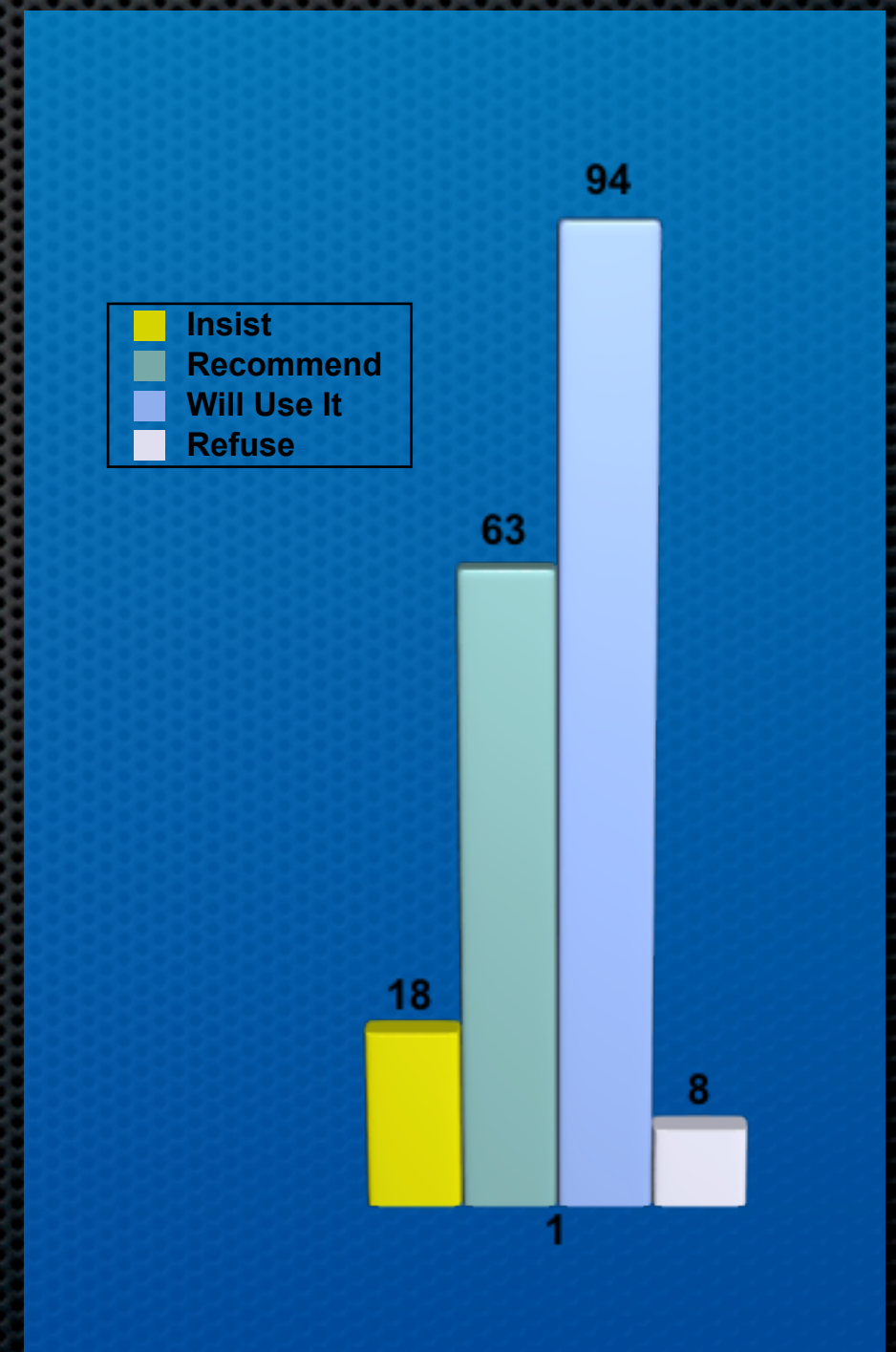
MEDs

- ✦ More widely accepted than I first thought.



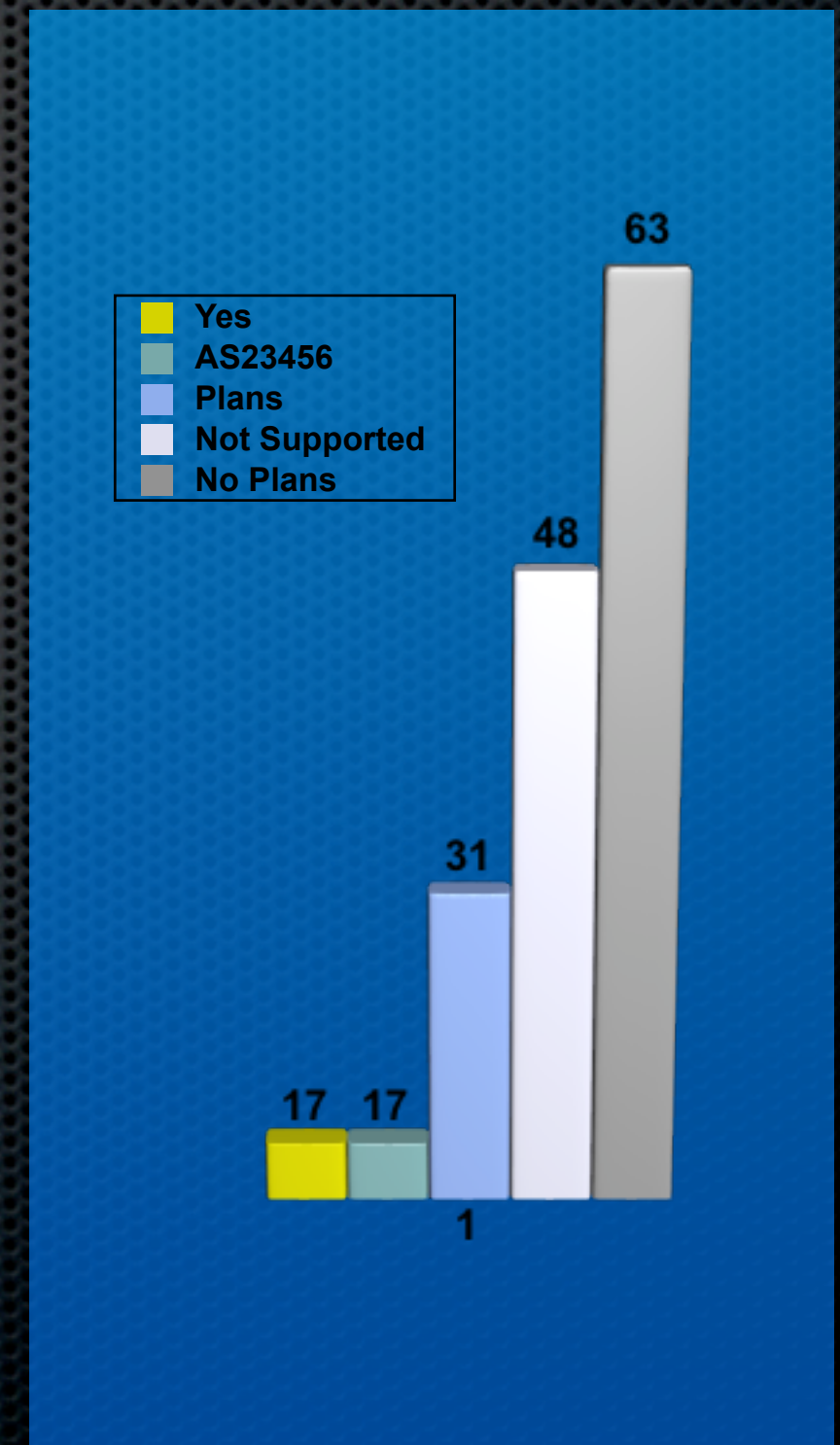
MD5

- ✧ Generally now unfashionable.
 - Admin hassles
 - Security concerns
- ✧ Feedback was, “You need a ‘Sigh, if you really do insist’ option”



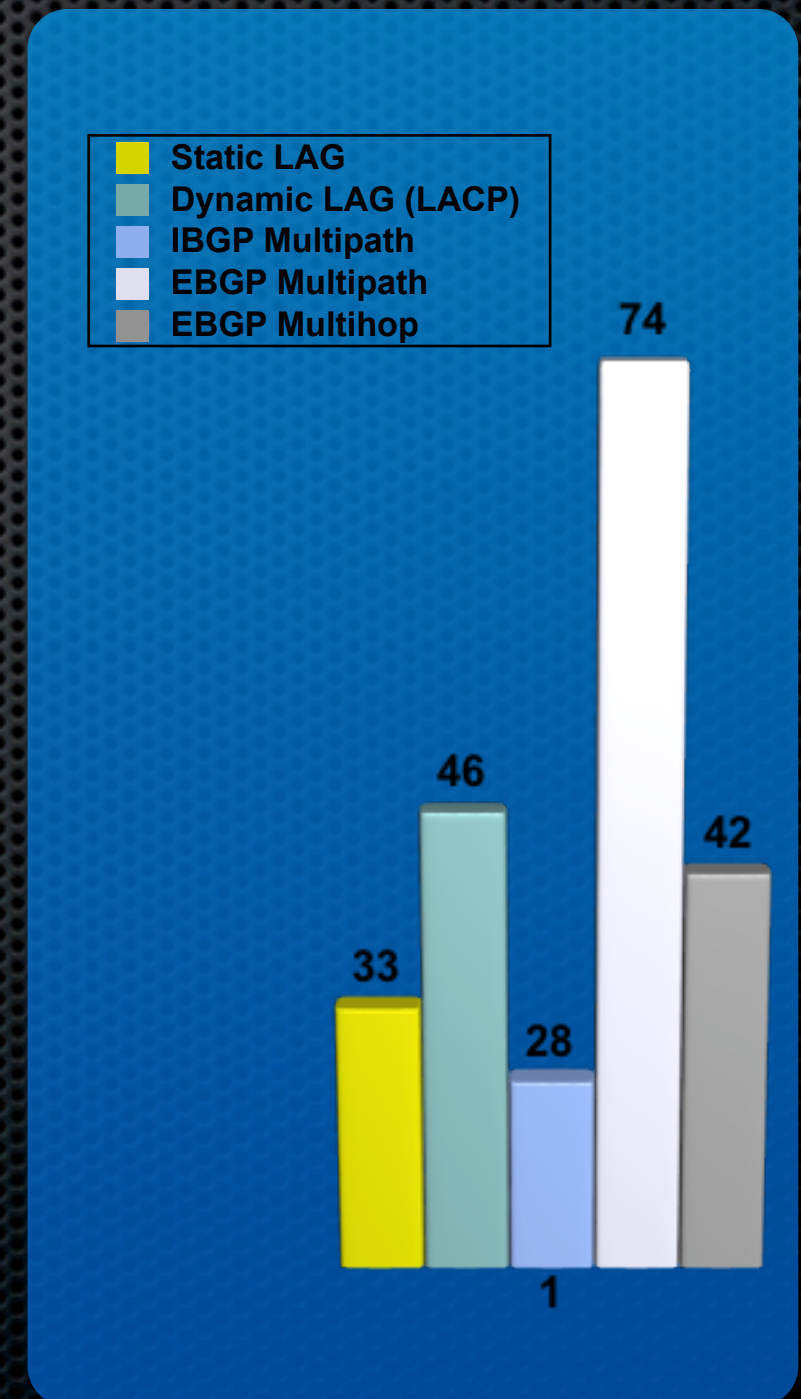
4 byte ASN

- ✦ Learn about these as RIRs will be giving out 4 byte ASNs by default from 2010 (will not recognise a distinction)
- ✦ Quagga/OpenBGPD support today
- ✦ Commercial vendors working on support.



Load balancing multiple links

- ✦ Link Aggregation about as popular as ebgp multipath. Surprising as multipath difficult to achieve at IXPs



Do you change the BGP next-hop to a network you do not peer with?

- ✦ Generally considered quite rude
- ✦ Risk of earning a bad reputation
- ✦ Non trivial to detect. Mitigation features apparently coming from vendors.

