Peering Survey 2008
Results

Greg Hankins, Force10
Ren Provo, Comcast
Tom Scholl, AT&T
Results About the Results

- Huge number of responses
  - 193 started
  - 169 made it to the second page
  - 153 finished all 24 questions
- 74 respondents provided their ASN
  - Optional
  - Anonymous to make it simple
- Thanks to everyone who participated in, and promoted the survey
What were the topics again, and who answered?

- General Peering Questions
- BGP Peering Specifics
- Other Peering Practices

What type of network do you run?

- Transit: 27%
- Content: 30%
- Eyeball: 16%
- Research: 6%
- Heavy Inbound: 7%
- Heavy Outbound: 4%
- Other: 10%
IP Unicast Peering

- IPv4
  - Yes this was a serious question 😊
- Trend to deploy IPv6 this year
  - Comments
    - Insufficient demand
    - Application doesn’t support IPv6
    - Many are still investigating/testing
  - Recent SIG-IX discussion, most people prefer dual stack
  - Interest from IXs around the world to support IPv6 peering
IP Multicast Peering

- Comments
  - Insufficient demand
  - Application doesn’t support multicast
  - Many are still investigating/testing

- Varying support at IXs for multicast peering
  - Many offer a separate VLAN
BFD

- Concerns about
  - Stability
  - Interoperability

- Interest and discussion about BFD recently
  - IXs thinking about BFD
  - NANOG42 IX Operators BoF

- People don’t know what BFD does, opportunity for education
BGP Communities

- Send To Public Peers: 70
- Send To Private Peers: 75
- Send To Customer Peers: 84
- Accept From Public Peers: 82
- Accept From Private Peers: 86
- Accept From Customer Peers: 92
- No: 18
BGP MEDs
Changing BGP Path Attributes

- Comments
  - Several people provide a way for customers to prepend the AS path using communities
Do you change the BGP next hop to a network you do not peer with?

- Interesting discussion at NANOG42 Peering BoF XVII
- Hard to detect
- Some vendors are now providing a feature to mitigate
BGP MD5 Signatures

- People generally hate it because it causes more problems than it solves
  - Interoperability
  - Feature support
  - Lost passwords
- Comments
  - You need to add a "sigh, let's do it if you really insist" question...
- Need something that examines pros/cons and a BCP for MD5
BGP GTSM

- Coarse correlation to last year’s survey
- Need to educate the community on benefits
- Comments
  - Many would like to use this feature
BGP Four Byte ASNs

- Most people are waiting on vendor support and customer demand
  - Cisco, Force10, Juniper will support it (widely) this year
  - Quagga, OpenBGPd support it

- Comments
  - One customer using it
MTU

- Comments
  - Many use a larger MTU on PNIs
  - Many would like to use larger MTU on public exchanges
  - Problem to use a larger MTU on public peering fabrics because everyone has to change
  - “Supporting Jumbo Packets on the Internet”
Biggest Concern About New Deploying Features

- Ranking of 1 – most important to 5 – least important
- Primary concern about new features working (at all) and being stable
  - Correlates with discussion at EPF 2.0
  - Possible answer to why people aren’t using the latest and greatest features
Things We Should Have Asked

● Geographic location question to see trends by regions (Asia, Europe, North America, …)
Conclusions

- We’re slowly getting our IPv6 peering on
  - 70 Mbps peak at AMS-IX recently
  - Google IPv6 initiative
Conclusions

- Not much going on with multicast peering
- Interest in BFD, GTSM, four byte ASNs, and larger MTUs
- There is a need to educate the community on features and best practices
  - BFD, route refresh, graceful restart, MD5, GTSM, flow spec, ORF
  - Tom Scholl is working on a presentation at NANOG43 about peering best practices
  - Discussions started with Philip Smith on a workshop
Conclusions

- Complete survey results are here:
Questions?

- Answers?
- Comments?
- Observations?