

abilene ipv6 routing

policy

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background:

- Abilene IPv4 Unicast Routing Policy
- Relaxed COU for “Advanced Services” (Multicast and IPv6)
- In Practice = Full Route Swapping
- Peering @ MIX: some multicast, very few IPv6

recent changes:

- Added Peering at PAIX Palo Alto
- ISPs only want our “customer” routes
- Activity on v6-ops mailing list
- complaints of very long paths between Abilene and commercial ISPs, especially in Europe
- IETF and NANOG IPv6 through Abilene

current status:

- Abilene has global IPv6 connectivity (roughly 850 routes)
- Kreonet (Korea) appears to be the only network providing “transit” to Abilene
 - roughly 150-200 IPv6 routes go through Kreonet
- Nearly all commercial IPv6 peers are at PAIX Palo Alto

questions:

- Should Abilene provide global IPv6 connectivity ?
- Can campuses & gigapops get “reasonable” IPv6 service from ISPs ?
- Is there an acceptable multihoming solution that works for everyone ?

questions:

- If Abilene provides global IPv6 reachability, how robust does it need to be ?
- Peering at both coasts and midwest ?
- Transit from more than 1 provider ?
- How much bandwidth ?
- Should we pursue robust peering in addition to transit providers

questions:

- Should IPv6 policy match IPv4 Unicast policy ?
- Should Abilene accept commercial IPv6 routes from Connectors and other NRNs ?
- Example: Korean R&E network advertising IPv6 routes to Korean ISPs

direction:

- Discussions over the past few weeks on how to proceed
- Exploring IPv6 transit options with ISPs
- Reviewing the Abilene ITN policy - will take into account IPv4 Multicast & IPv6 as well as IPv4 Unicast
- Want to get input from the community