6to4 Qualification

draft-nward-6to4-qualification-00 (-01)

-01?

- Minor updates, mostly cosmetic
- I was too late for the deadline, so posted to the list

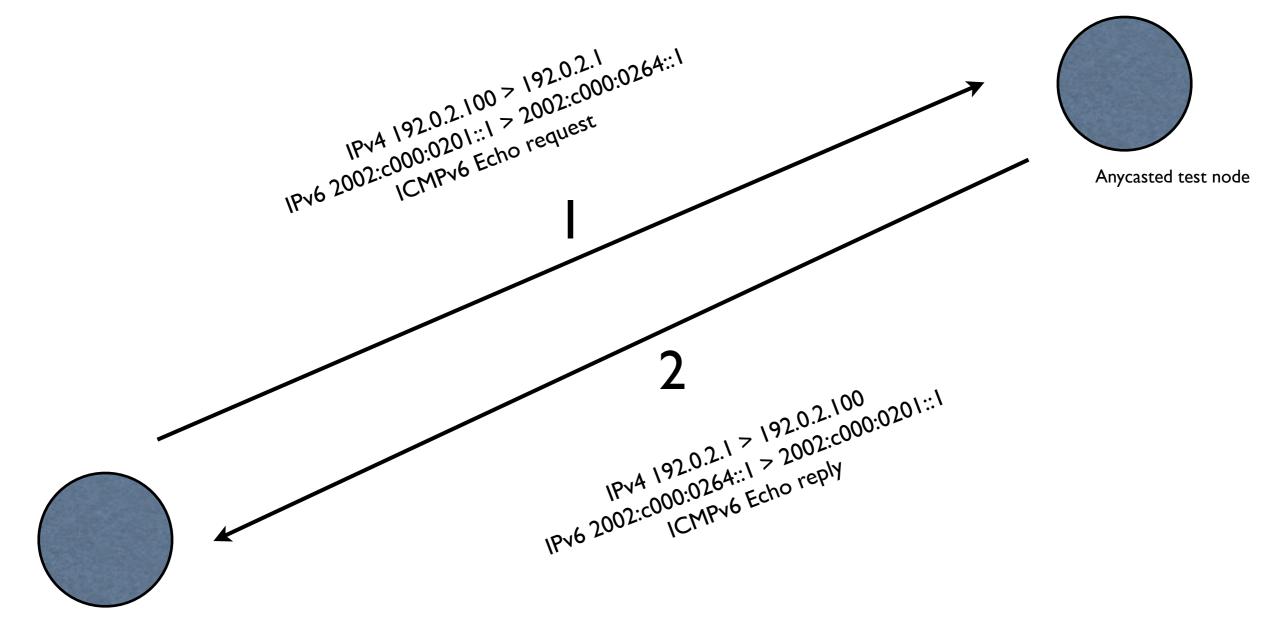
Background

- "Automatic 6to4" comes up if host has "public" IPv4 address. Windows, Apple Airport Extreme, etc.
- No test to ensure
 - Address is routed
 - Address is not filtered/NATed
- Filtering and NATing silently break 6to4
- User experience is bad

Qualification

- 2 tests:
 - Symmetric
 - Asymmetric
- Examples assume:
 - TBDI = 192.0.2.100
 - TBD2 = 2001:db0::

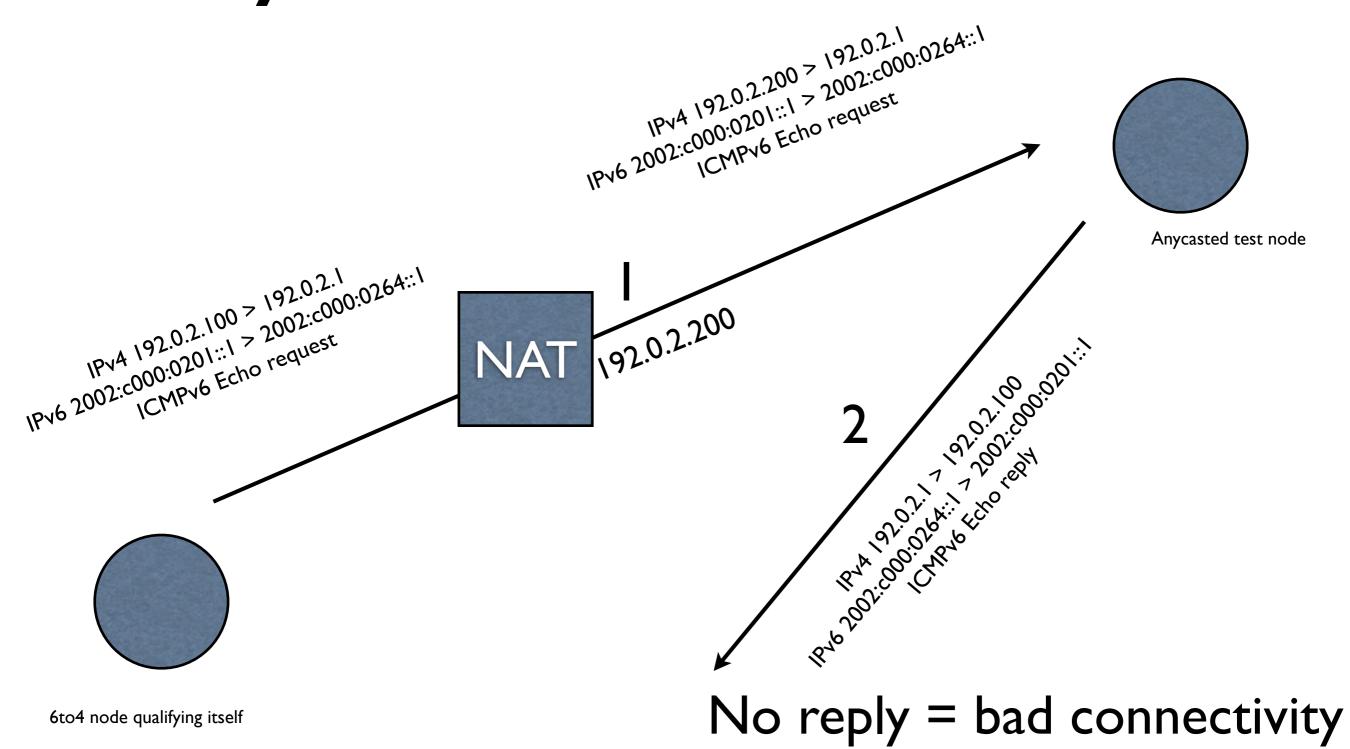
Symmetric



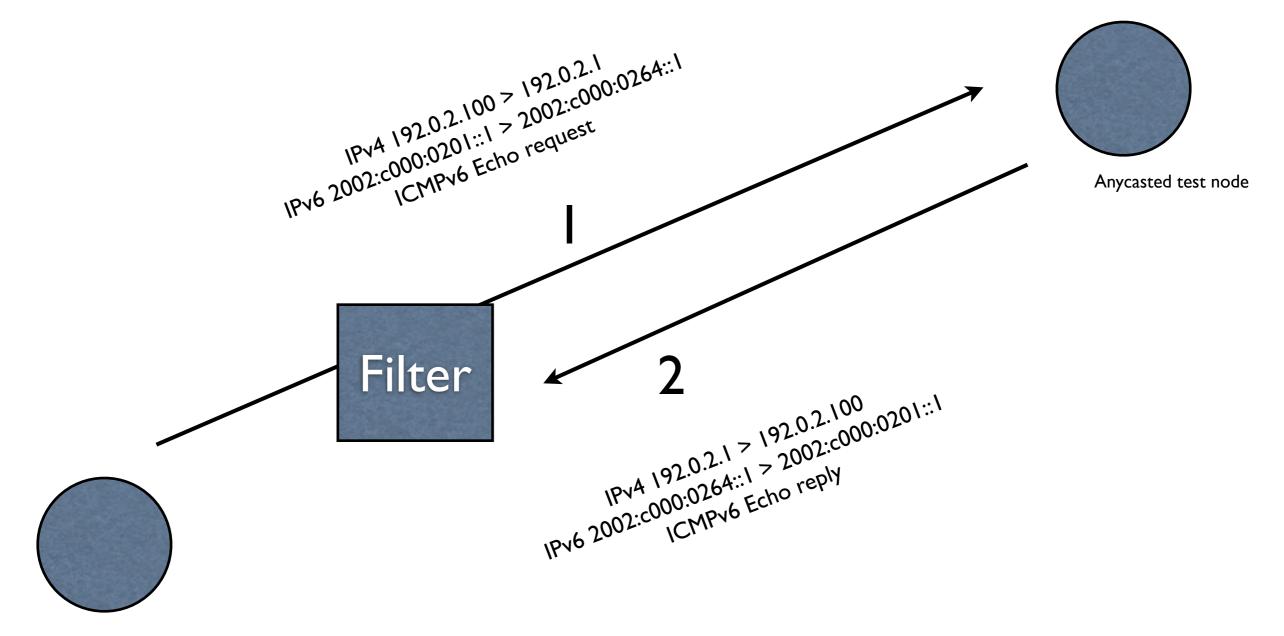
6to4 node qualifying itself

Reply = so far so good

Symmetric with NAT



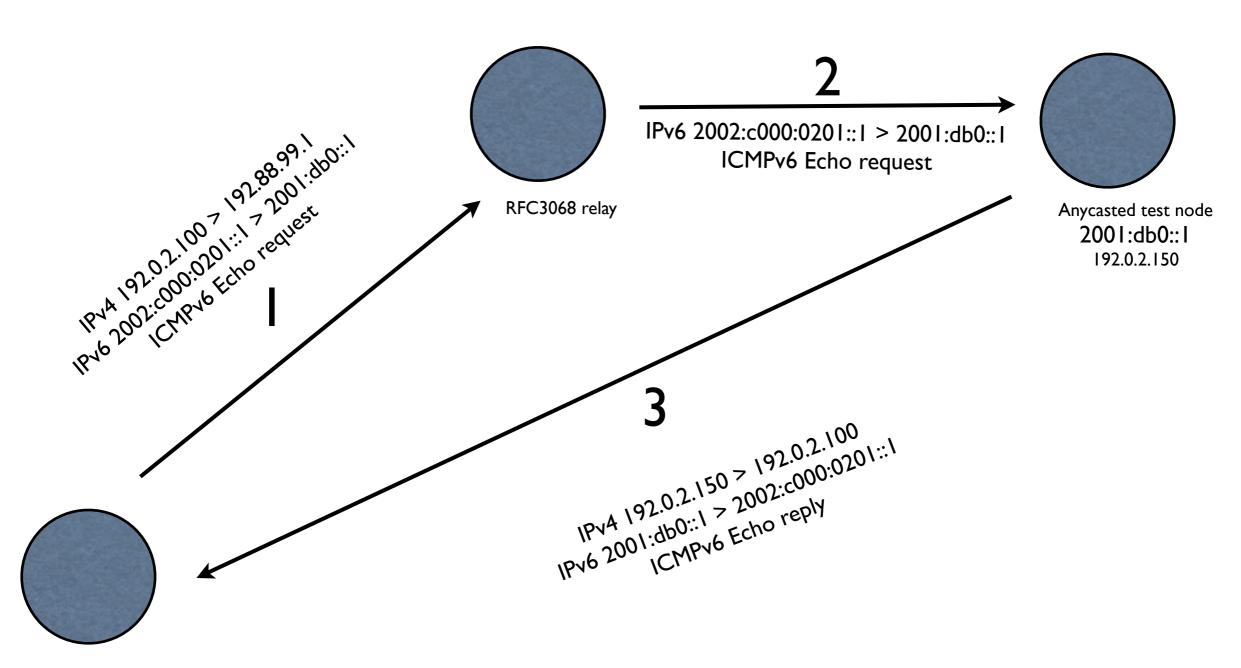
Symmetric with filter



6to4 node qualifying itself

No reply = bad connectivity

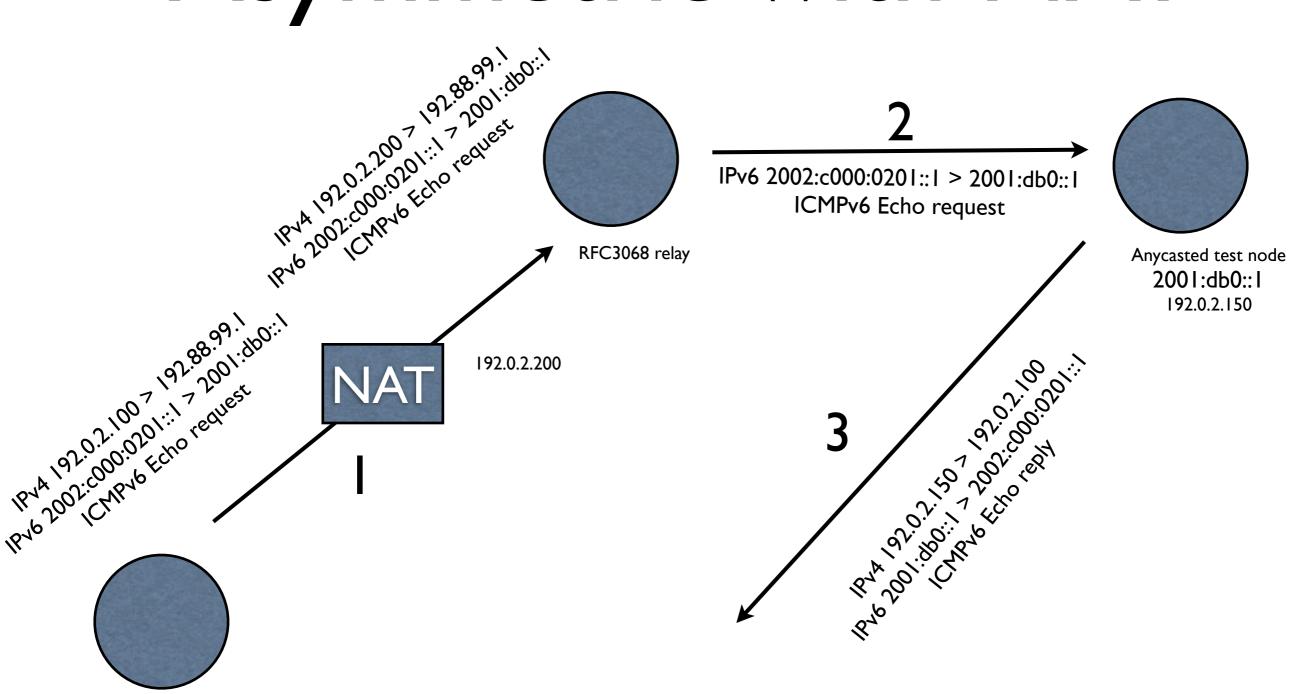
Asymmetric



6to4 node qualifying itself

Reply = so far so good

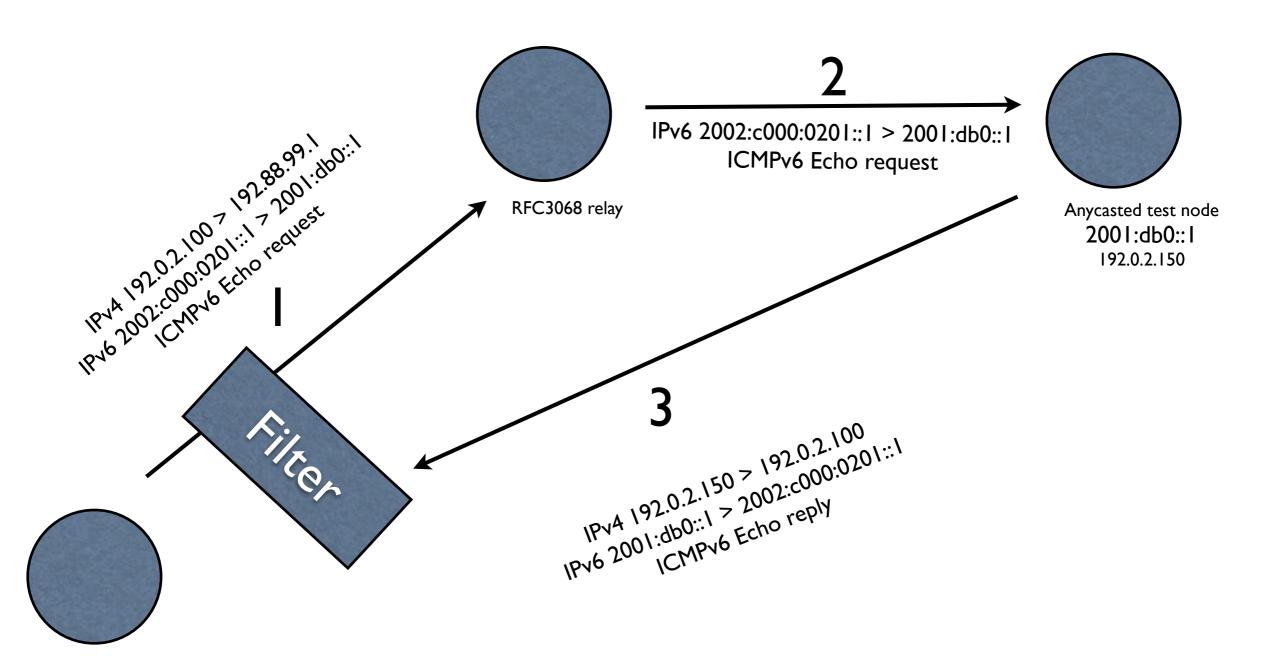
Asymmetric with NAT



6to4 node qualifying itself

No reply = not so good!

Asymmetric with filter



6to4 node qualifying itself

No reply = not so good!

Logic

- If both symmetric and asymmetric are OK, then turn up interface, point default route, etc.
- Otherwise, do nothing.