draft-van-beijnum-multi-mtu-03

- Much ethernet HW does > 1500 byte MTU

- Hard in practice: all systems on a subnet must have same MTU = set manually

- So: agree to larger MTU between pairs of nodes

- Advertise MTU in ND or ARP option, send test packets to make sure it works, keeps working

- Much simpler than earlier versions of the draft

- Hosts test to/from routers, less work for router

- Optimize away test packets where possible

- Ready to go for publication as experimental

Big Packet Advantages

- More room for additional headers without path MTU discovery breakage

- Lower overhead, especially with large headers

- Less per packet work in hosts = faster

- Less per packet work in routers = possible power/heat savings

- Better TCP performance

Disadvantages

- More delay and jitter
    - so only do 1500+ at 1000 Mbps or faster
- Depend more on path MTU discovery. However:
    - you see the problem if *you* break PMTUD
    - you can always reduce MTU (not increase...)
    - few problems with large MTU in middle