A Small Update on the Use of IPv6 Extension Headers

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IEPG 89
Intro

- IPv6 EHs are reportedly (largely) dropped in the public Internet
  - See Fernando's IEPG 88 presentation, and,
  - Tim's post to the v6ops wg list
Summary

- HBH, DO, and RH:
  - Packet drop rates larger than 50%
- Packets violating RFC 7112:
  - Close to 100% dropped
- Long header chains:
  - The longer, the larger the packet drop rate
- Fragmentation:
  - Failure rate of about 50%
Further questions

- Where are packets with EHs dropped?
  - Close to the origin?
  - Close to the destination?
  - Closer to the core?
Some additional tests

- Produced more versatile traceroute
  - Different types of payloads (TCP, UDP, ICMPv6)
  - Support of IPv6 EHs
- [https://github.com/fgont/ipv6toolkit](https://github.com/fgont/ipv6toolkit)
Some sample data

Packet Drops per delta-hops
Questions?
Thanks!

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