Asymmetric IPv6 for IoT Networks

draft-jiang-asymmetric-ipv6

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Why?

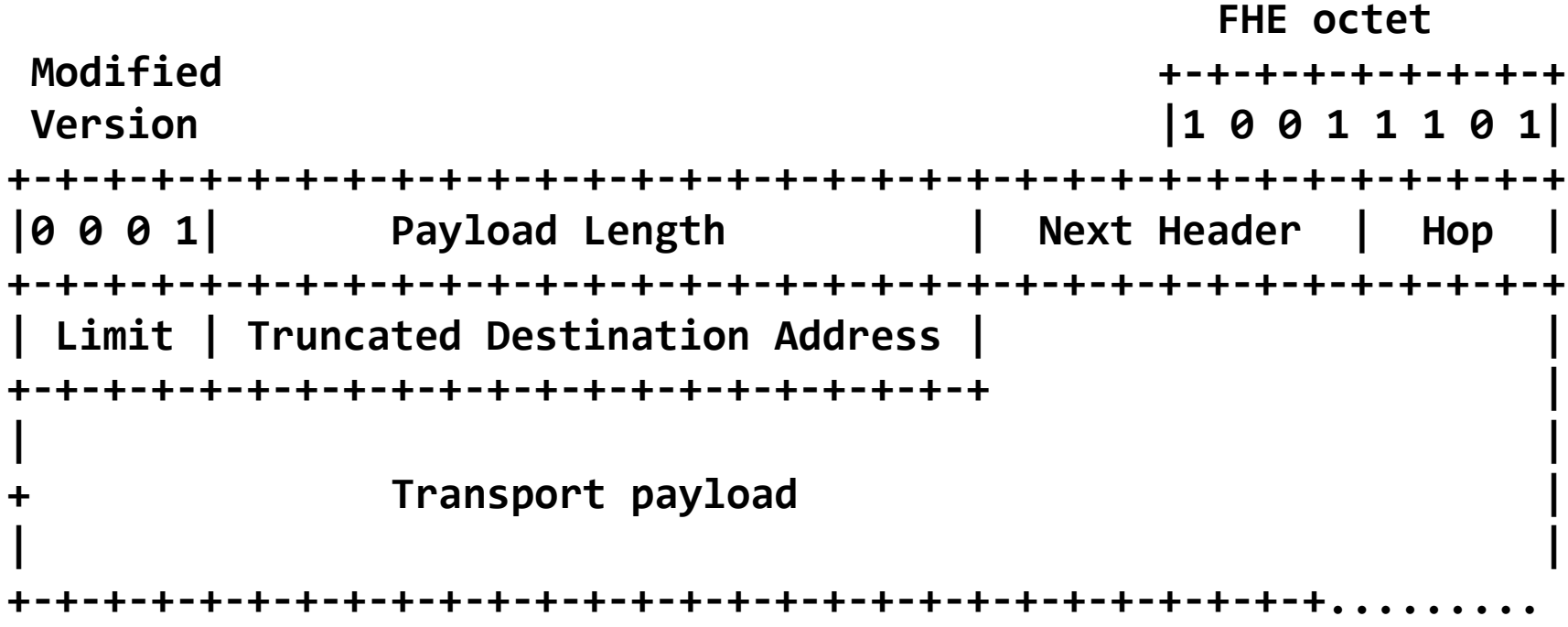
- In edge IoT deployments, physical MTU and bit rate are very low
  - so packet size matters a lot
- Even the edge routers may be constrained
  - so header compression/decompression uses precious resources
  - 128 bit addresses consume memory

What?

- Shorten addresses inside IPv6 packets
- Route on shortened addresses
- Don’t transmit unnecessary bytes
- Avoid compression/decompression algorithms

How?

- Define an address length N within a domain
- All addresses inside the domain are assumed to have a common prefix of (128-N) bits
  - Unnecessary header bytes are elided
- Use a “flexible header encoding”



Where?

- 6lo WG

  Monday 13:30-15:30
  Sainte-Catherine

- Side meeting discussion:

  Wednesday 08:30-09:45, Notre Dame
  (also draft-jiang-service-oriented-ip)