DCCP Nonissues

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Overview

- Partial checksums
- Checksum contents
- Data Dropped
- Mobility
- Sequence number security

Partial checksums

- Some people don't like the idea of delivering possibly-corrupt data
- We disagree

- Aligned our definition of partial checksums with UDP-Lite's
- What about Checksum Coverage 2 . . . 15?

  Currently means "protect first 4 . . . 56 bytes of payload"

  Is 56 bytes enough?

  Should we use 8-byte units instead?

  Any data?

Checksum contents

- Internet checksum considered weak
- Prefer HMAC, UMAC, . . . for header checksum
- We disagree

  Internet checksum well understood

  Know how to update incrementally (NATs, transport intermediaries . . .)

  Would need much stronger arguments before replacing header checksum

Data Dropped

- Greg Minshall: "It is a mistake to define packet receipt as 'options processed'. Should define it as 'will make best effort to give data to application'. Congestion in the endpoint is still congestion."
- We disagree strongly

  Endpoint drops do not require same congestion response

  Also consider corruption, . . .

- An endpoint could implement à la Minshall if it preferred

  Don't acknowledge packets until you are pretty sure you'll deliver payload to the application

  Should we mention that explicitly in the draft?

Mobility

- Some wanted to remove mobility, others found it useful for multihoming in particular, we claimed ambivalence
- Most convincing argument: “this is a next generation transport protocol, so [keep mobility and] do it right”
- Recommendation: Keep mobility

  NAT problems solved in latest draft

Sequence number security

- "Sequence number security is depressing"
- We disagree
  - Alternatives behave badly with NATs, are poorly understood
  - Use IPsec or application-level security if you need stronger guarantees
  - Or define some security options, perhaps like Identification