



# Transport Options for UDP

**draft-ietf-tsvwg-udp-options-05**

IETF 98 – Chicago

Joe Touch, USC/ISI



# Status

- Major update since last IETF talk
  - 04 adds LITE, alternate checksum
  - 05 adds frag/reassy, TCP-like options
- Important need
  - DNSSEC could use UDP fragmentation to overcome IP path MTU limits
- Implementation progress
  - USC/ISI student project handed off to ?
- Requesting WG adoption
  - We'd like a call ASAP
  - Pref. targeting standards-track

# Overview

- Option space for UDP
  - Uses difference between IP and UDP lengths
  - Does NOT deliver “out of band” trailer to app.
  - Compatible with legacy (so far)
  - Uses Option Checksum (OCS) for “safety”
- Useful for
  - Out-of-band fate-shared signaling
  - Soft-state optimizations
  - Optional optimizations
  - Emerging UDP extensions (GUE, TAPS, etc.)

# 04/05 additions

- **Alternate checksum**
  - CRC16 to provide stronger protection than IP CS
  - Need to indicate the polynomial (TBD)
- **LITE**
  - Like UDP-Lite
- **Fragmentation/reassembly**
  - Incl. LITE variant silently ignored by legacy
  - Incl. its own reassembly IP checksum
  - Incl. both per-frag/post-reassy UDP options
- **TCP-like features**
  - Timestamps, MSS, AO/AO-encrypt (“AE”)