IPv6 Destination Option for Congestion Exposure

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draft-ietf-conex-destopt-01

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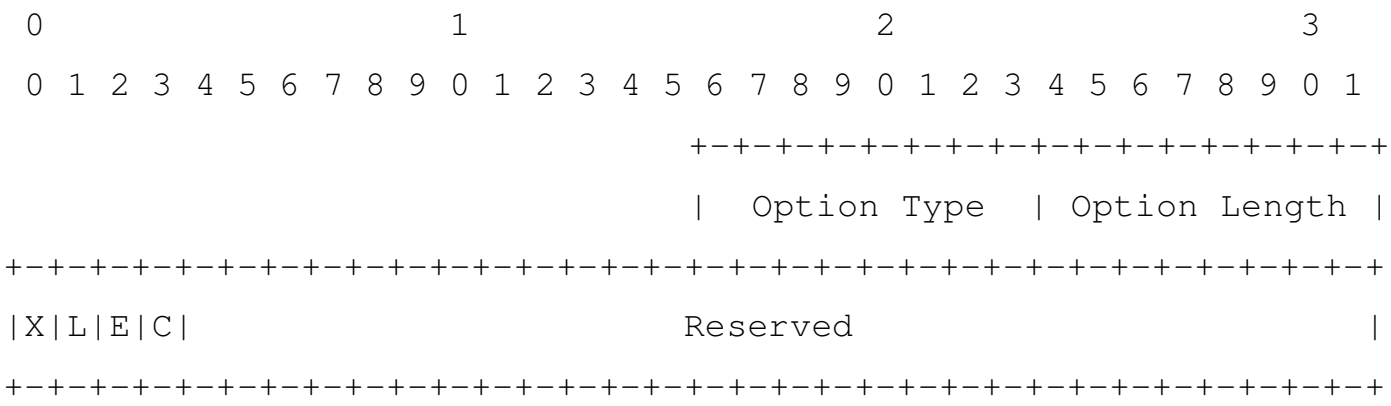
Conex Destination Option (CDO)



ConEx-enable Connections

- All packets of a ConEx-capable connection MUST carry the CDO
- If the X bit is zero this packet SHOULD NOT be accounted

  → e.g. pure control packets not carrying any user data and no congestion feedback available

Possible Combinations

- If X not set → L, E, C must be zero
- If X set → All combinations of L, E, C are allowed

  More than one bit set → packet size must be accounted more than once, e.g. for loss and ECN-based congestion

Open Issues

- Add section on justification for using IPv6 destination option

  Not following draft-krishnan-conex-ipv6-02 anymore
- Recommendations of implementation in the fast path
- Operation with IPSec Transport Mode
- Byte-wise Accounting

  "[T]he number of bytes carried by this IP packet (incl. IP header) SHOULD be accounted when determining congestion or credit information."
  - **Pro:** Congestion usually depends on number of bytes (queue in router can store a certain number of bytes, not a certain number of packets in most cases)
  - **Contra:** Easier accounting/processing/understanding