

# The TCP Echo and TCP Echo Reply Options

draft-zimmermann-tcpm-echo-option

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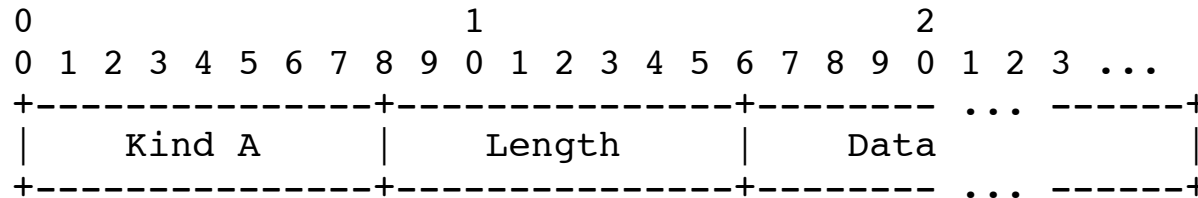
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## Where we come from...

- **Use case: TCP sender would like that some option data simply echo back by the TCP receiver**
  - TCP Timestamp options [RFC 7323]
  - SYN Flood protection [I-D.briscoe-tcpm-echo-cookie]
  - Retransmission ambiguity detection [draft-zimmermann-tcpm-spurious-rxmit-00]
  
- **Idea: revive idea from RFC 1072**
  - Common denominator for all this ideas above
  - Slightly different semantics than RFC 1072
  - Variable option length

# The TCP Echo and TCP Echo Reply options

## ■ Option structure



- *Length*:  $1 < \text{value} < (\text{extended})$  option space
- *Data*: optional; can be filled w/ any data

## ■ Properties

- TCP Echo facility is determined in both directions using a single exchange during the 3-way handshake
- No more than one TCP Echo option per segment
- Reply w/ the most recently received Echo option

## Moving forward...

- **Interesting to the WG?**
  - Initial feedback received
  - Other use cases...?
- **Next steps**
  - Incorporate Pasi's feedback
  - Eventually asking for adoption