

# Record header extensions for DTLS

draft-fossati-tls-ext-header

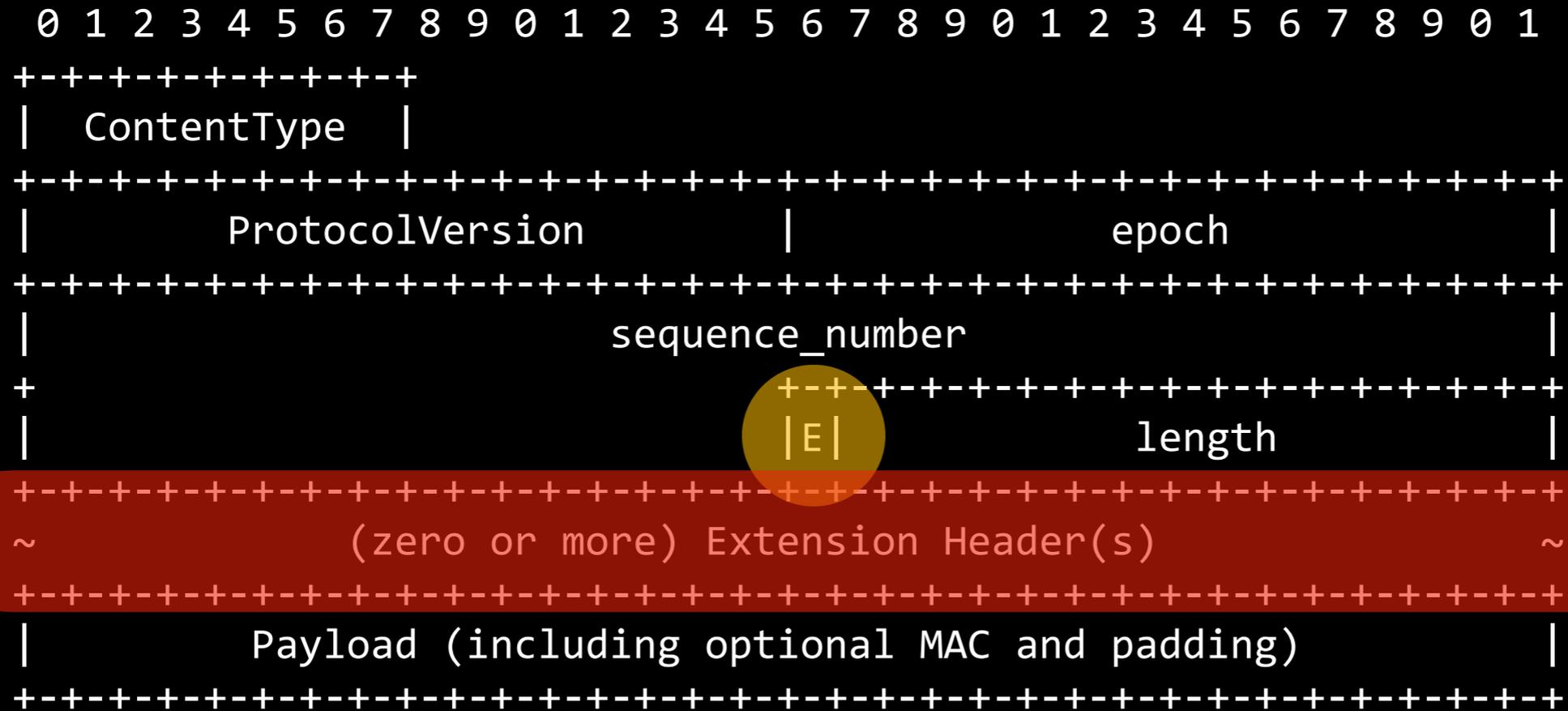
IETF 101

[draft-fossati-tls-ext-header@ietf.org](mailto:draft-fossati-tls-ext-header@ietf.org)

# How did we get here?

- Looking at places in the header where to signal the presence of CID...
- What if we grab that lonely length's MSB?
- Observation: We could just be greedy and grab it for signalling the CID, but if we "sacrifice" one more byte to allow typing, then we could hook an entire extension mechanism on top of that humble bit...

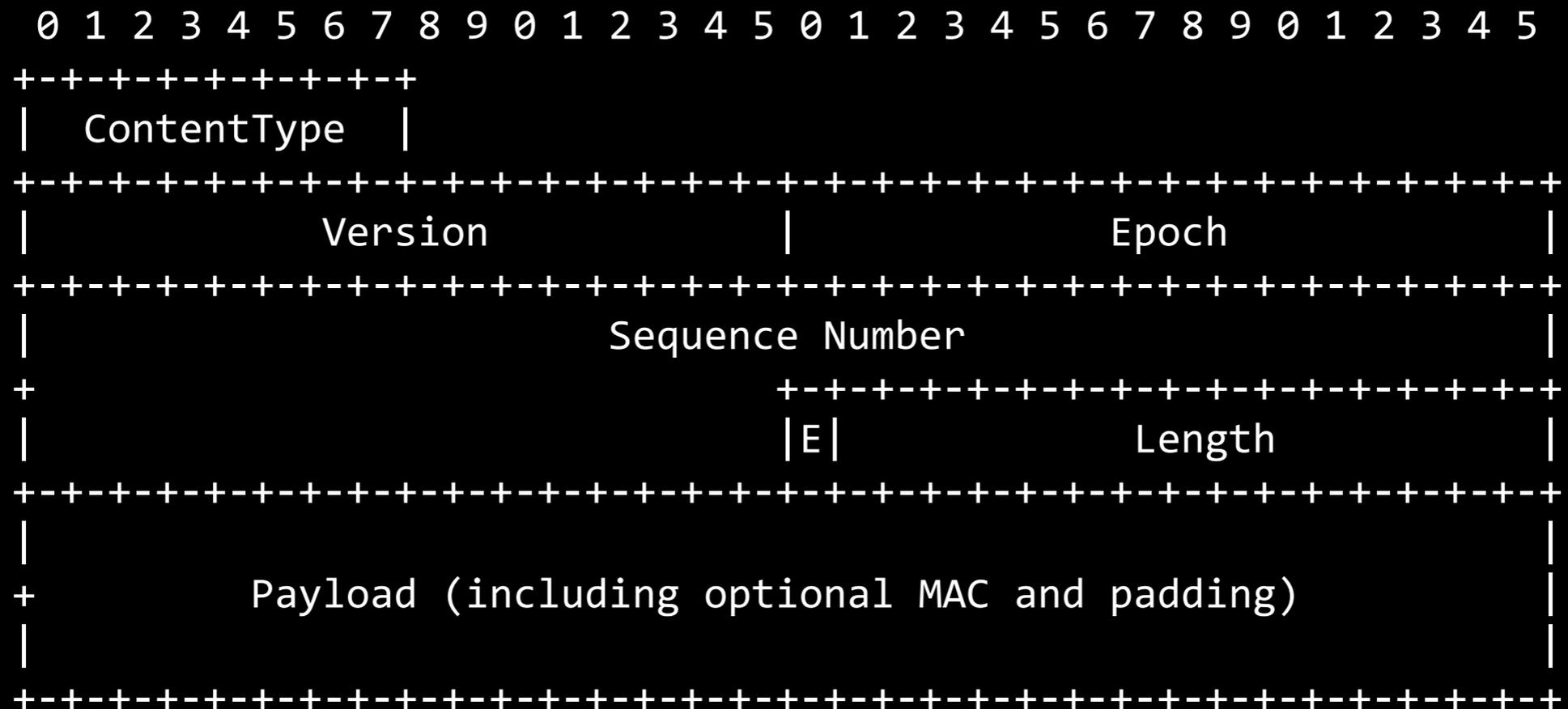
# Mechanics



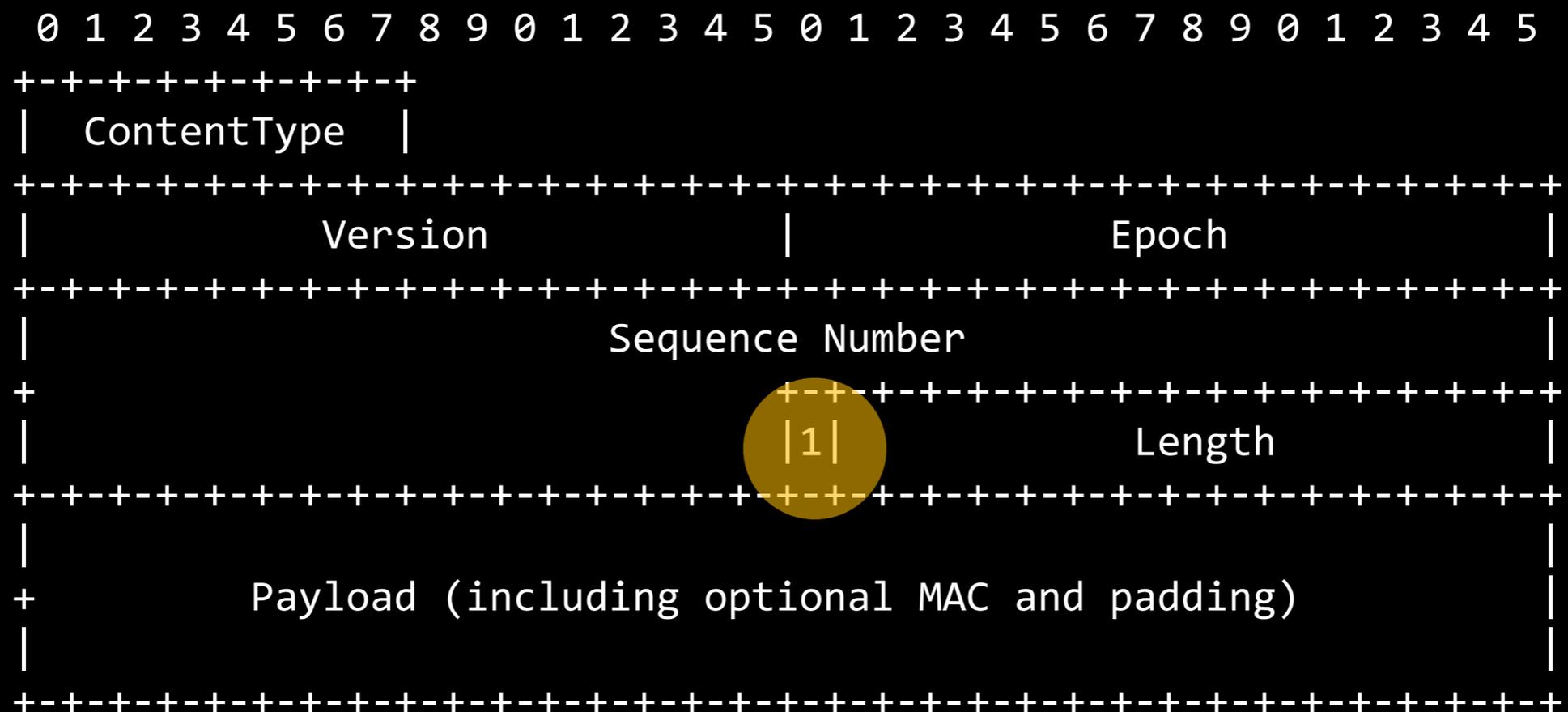
# Design criteria

- (Very) limited vocabulary (16 code-points):
  - connection-id is the only extension envisaged for the time being
    - It might be worth allocating another code-point to port the "update CID" semantics to 1.2?
- Only usable if both endpoints agree:
  - Hooked into TLS extension negotiation framework (RFC6066)
  - Start using the E-bit only after handshake has successfully completed

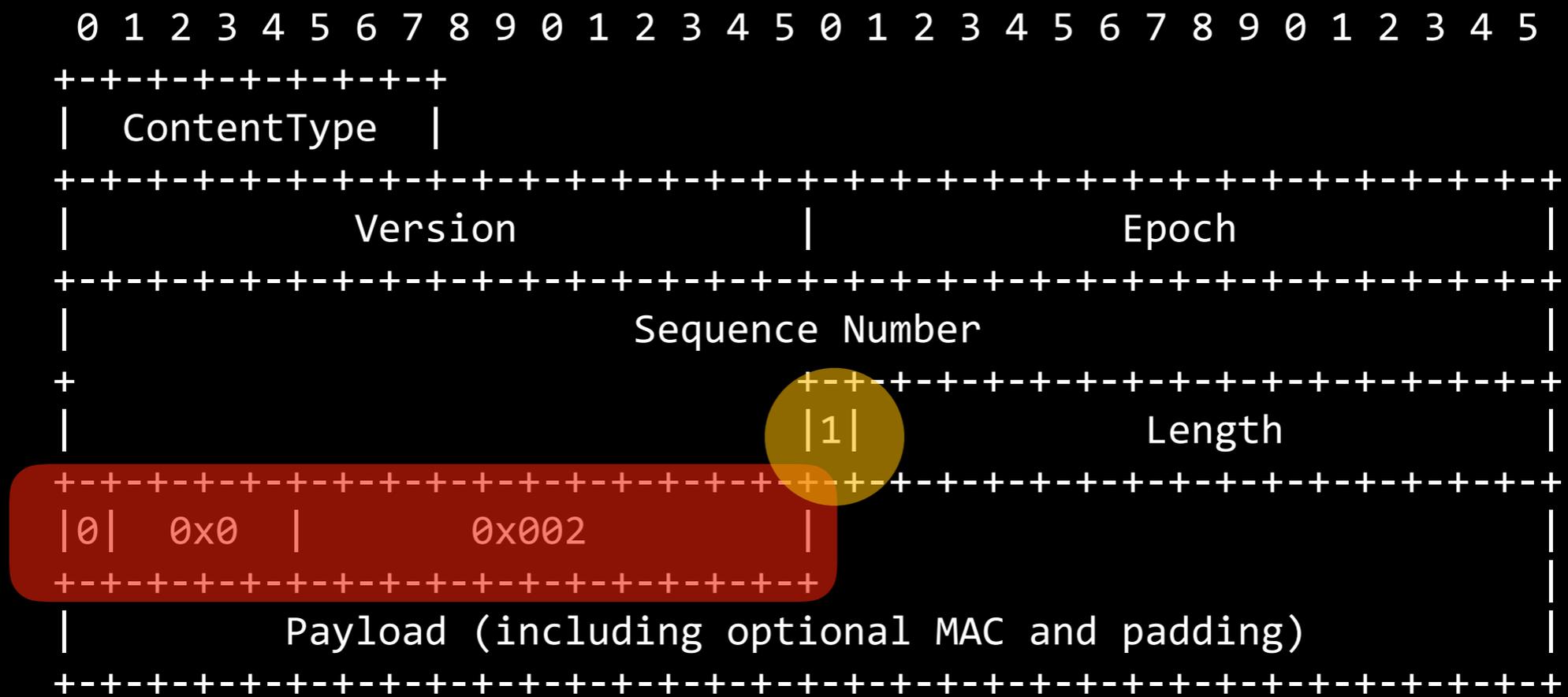
# Example (CID="AB")



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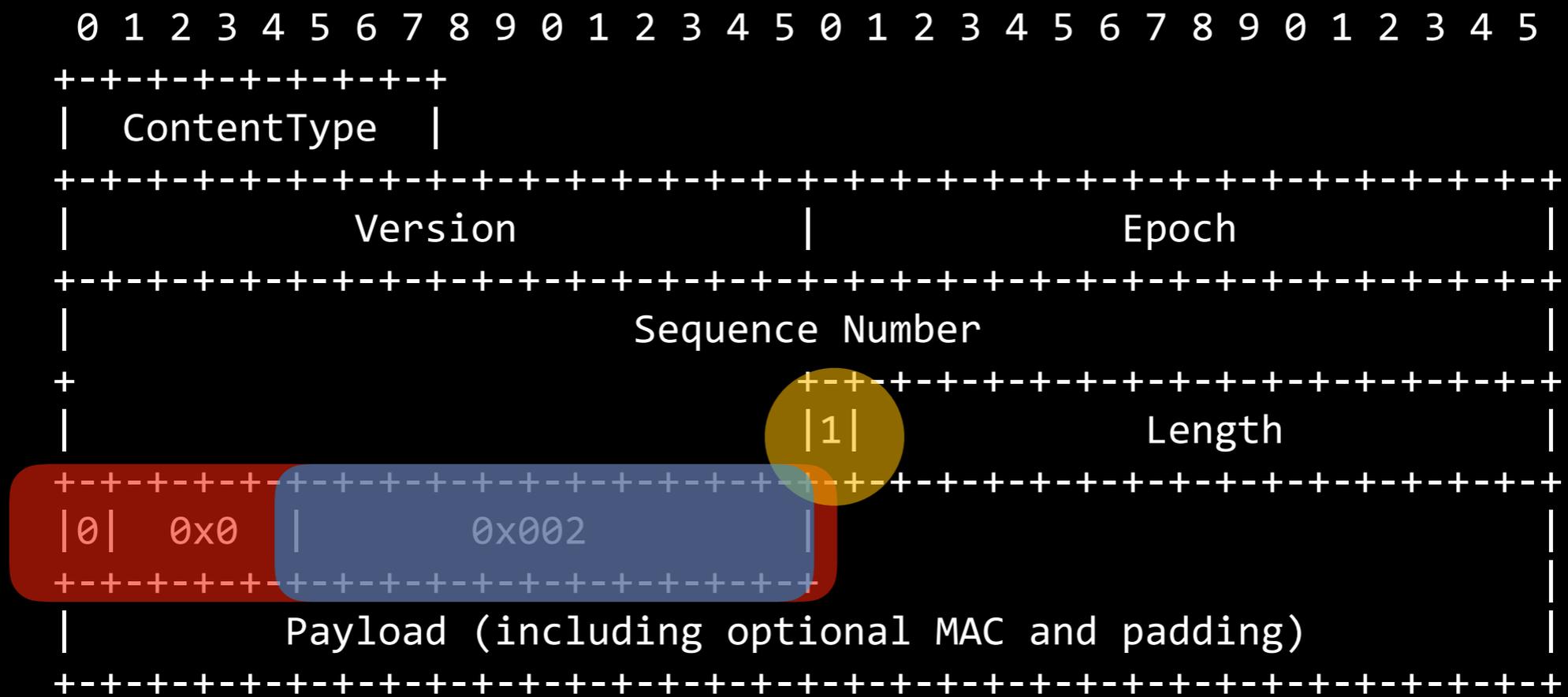


# Example (CID="AB")

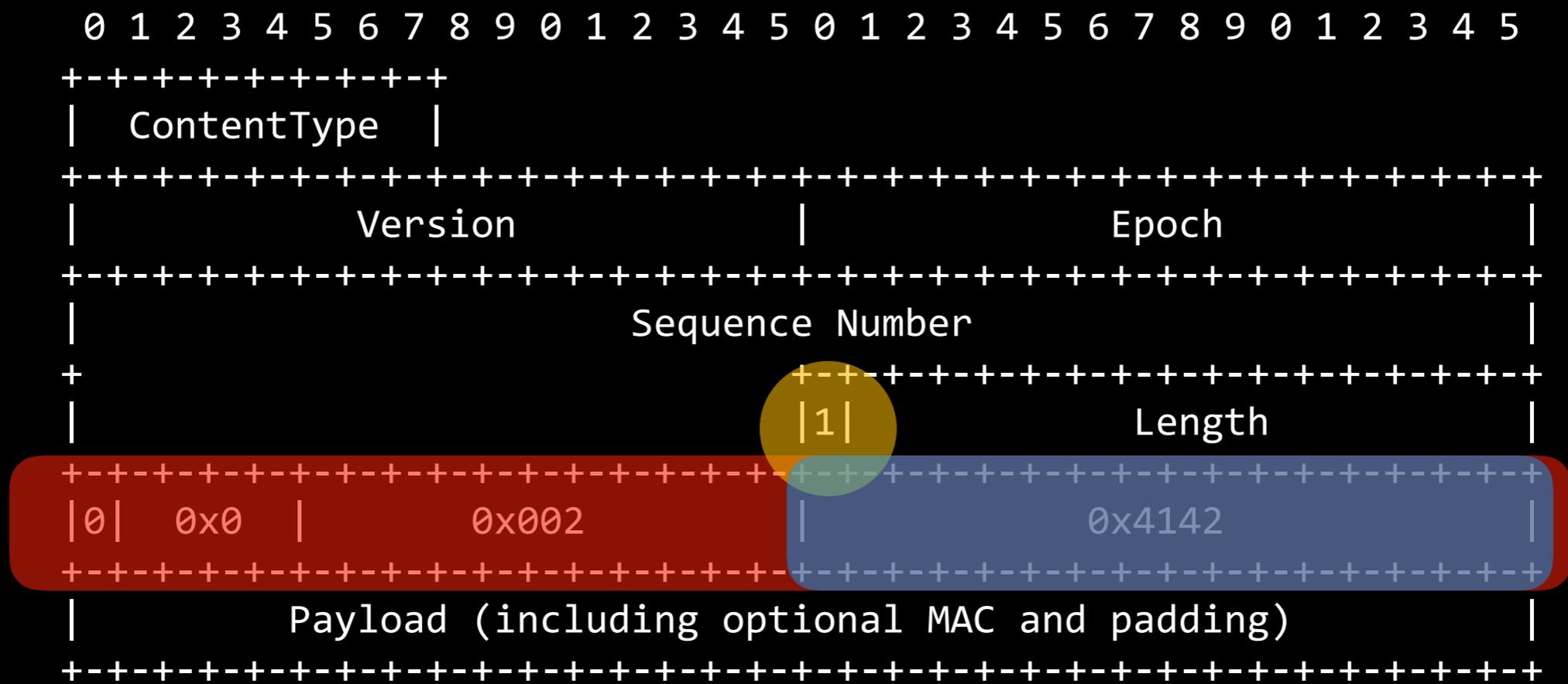




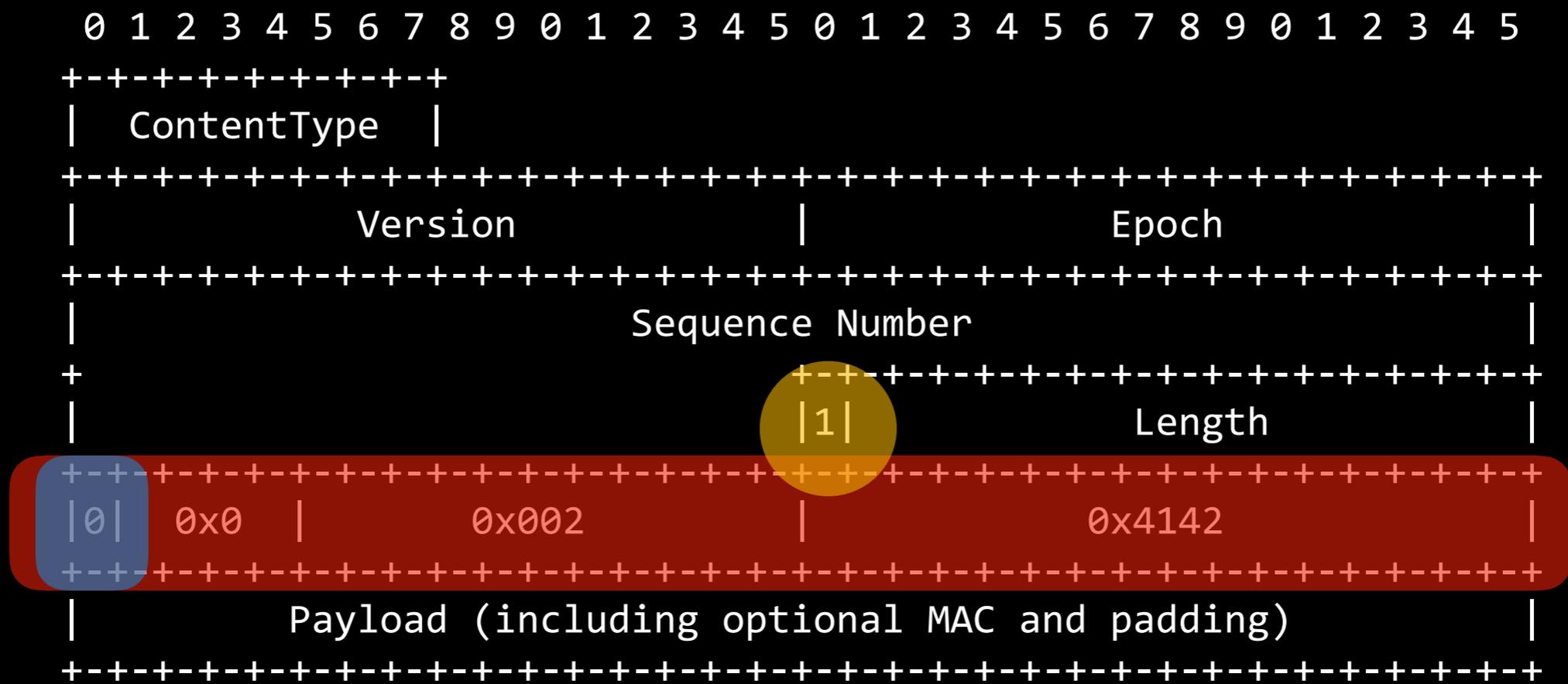
# Example (CID="AB")



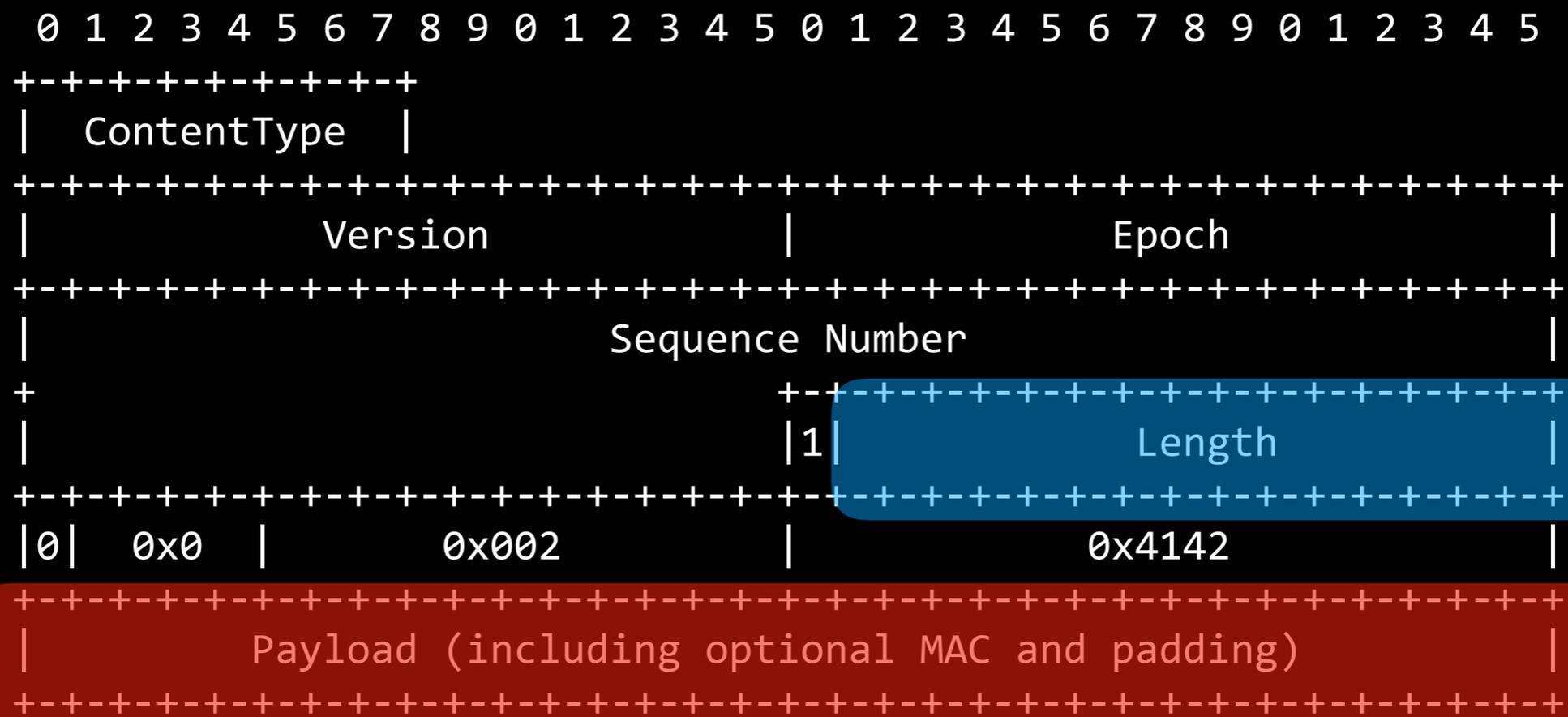
# Example (CID="AB")



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# Example (CID="AB")



# Middleboxes...

- In -00 we proposed a generic mechanism (TLS as well as DTLS)
- After ML discussion (thanks Adam L. and Yoav N. for the input) decided to switch off TLS (undeployable in the wild because middleboxes) and only focus on DTLS

# Question(s)

- Is this a valuable thing to have?
  - Should we push it forward?