802.17 Proposed Frame Format

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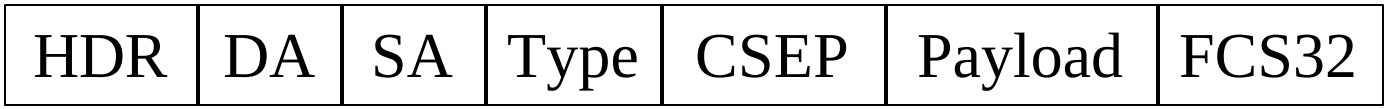
Frame Format



- RPR Header 24 bits
- DA 48 bits
- SA 48 bits
- Type 16 bits
- CustomerSep 32 bits (optional)
- Payload N bytes
- FCS32 4 bytes Calculated from DA onward

RPR Header Format

- TTL 8 bits Remove Packet when TTL == 0
- Mode 3 bits Indicates type of packet
  - Data, Protection Ctrl, Generic Ctrl, BW Ctrl
  - Spares for the future
- Wrap 1 bit Indicates if packet has been wrapped
- PRI 3 bits Mapped from 802.1P/Q
- Steer 1 bit Indicates Packet should not be wrapped
- HEC 8 bits Calculated Over first 16 bits

Features

- TTL provides mechanism to avoid packets circulating forever
  - Decrement logic includes check to avoid modifying wrapped packets if the ring is in a wrapped state
    - Wrap bit set and the ring is in a protection state
- HEC / FCS provide robust error control
  - No need to recalculate FCS hop by hop
  - Simple bridging of 802.3 frames – no need to recalculate FCS
- Customer Separation field is optional
  - Used in conjunction with encapsulating bridging to provide closed user groups
  - Operation to be proposed for November meeting