



802.17 Proposed Frame Format

Steven Wood
Cisco Systems



Frame Format

HDR	DA	SA	Type	CSEP	Payload	FCS32
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- RPR Header 32 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	Mode	Wrap	PRI	Steer	HEC
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- 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