

Qualcomm

3GPP RAN #80
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Header Compression for Wireless Ethernet

A scenic view of a city skyline at sunset over a body of water. The sky is filled with vibrant orange and purple clouds. In the foreground, there are large, dark rocks covered in green moss. A pier extends into the water on the right side, and a city skyline is visible in the background.

Ethernet Header Format and Payload Size

- Ethernet MAC header (without VLAN) shown below, with size in Bytes. Total size 14 bytes



- Ethernet payload size for industrial applications are described by SA1
 - Section 8.1.2, 22.804v2.0.0 refers to payload size **20-40** bytes
- Given fields are static and typical packet size is small, gains from compression can be significant !

RAN 2 Proposed Next Steps

- Study Item
 - Assess the benefits of header compression for Ethernet PDU
 - Assess the complexity of defining header compression for Ethernet PDU
 - Note: RoHC already provides a flexible framework for compressing headers with static fields, but does not explicitly define a profile for Ethernet
- Work Item
 - After conclusion of study, RAN to decide whether to proceed to definition/work-item stage
- **Proposal: Start feasibility study on header compression for Ethernet as part of RAN2 areas of URLLC**