



EtherType and RoE common header format

Jouni Korhonen
Broadcom Limited
4/12/2016

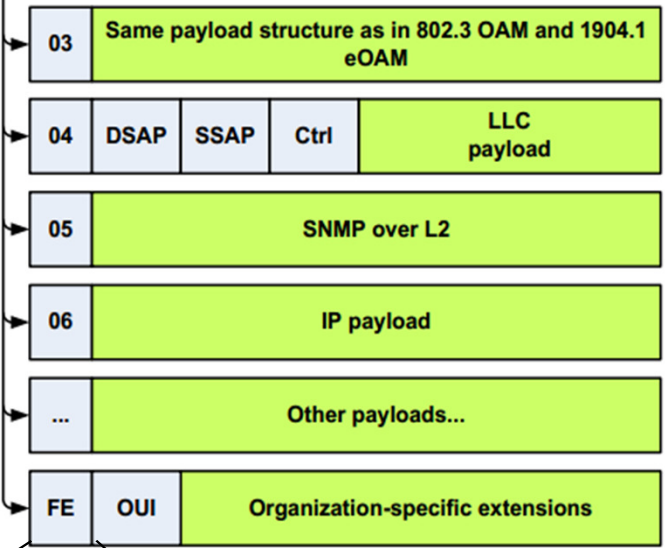
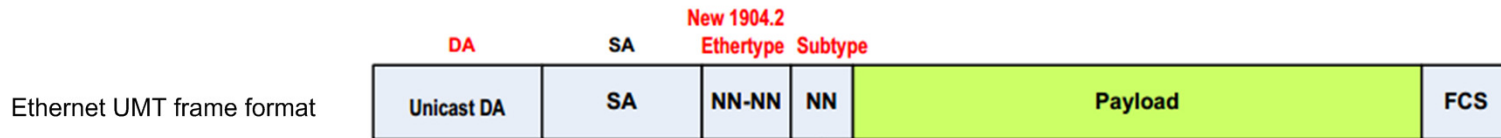
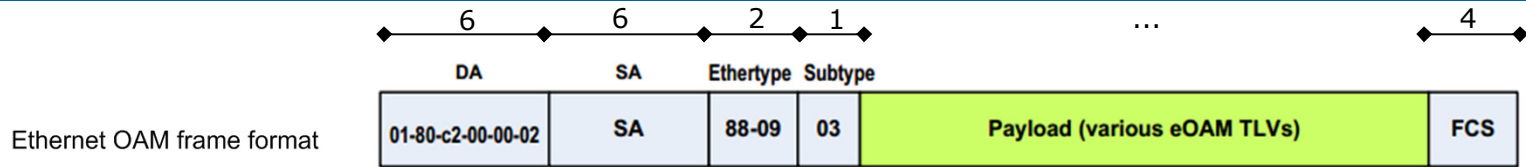
Background

- ❑ Refer to the mail in 1904.3 reflector:
 - <http://www.ieee1904.org/3/email/msg00455.html>
- ❑ Basically the IEEE RAC (Registration Authority Committee) does not want to hand out more than one EtherType per IEEE working group.
- ❑ IEEE P1904.3 planned to have an EtherType for RoE packets.. however, IEEE 1904 WG already has an EtherType assigned.

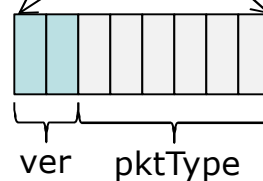
EtherType considerations

- ❑ The general guidance is to design the protocol embedded into the Ethernet frame payload in a way that the same EtherType can be shared among different uses within the same WG.
- ❑ IEEE P1904.2 has already received their EtherType and designed their framing in a way that multiple sub-protocol using the same EtherType is possible:
 - The IEEE P1904.3 should follow this model (which it already does.. but..)

IEEE P1904.2 frame format



IEEE P1904.3 RoE pktType numbering overlaps with some of these code points.



IEEE P1904.3 RoE header has 2 bit version and 6 bit version in this location

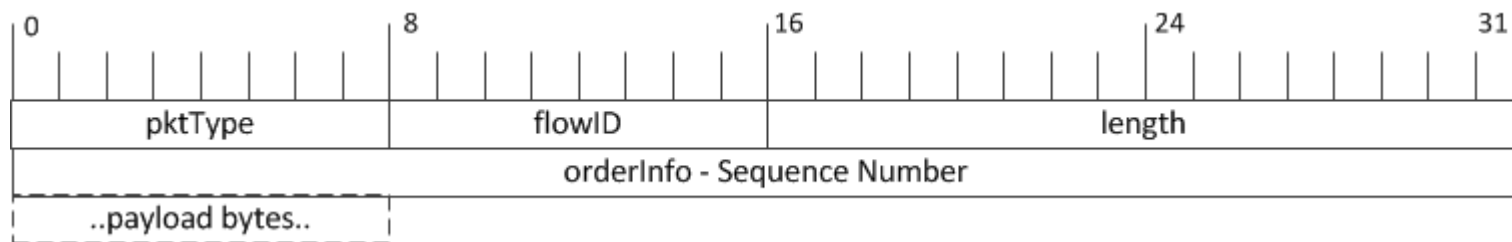
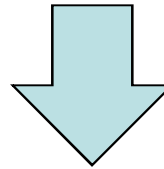
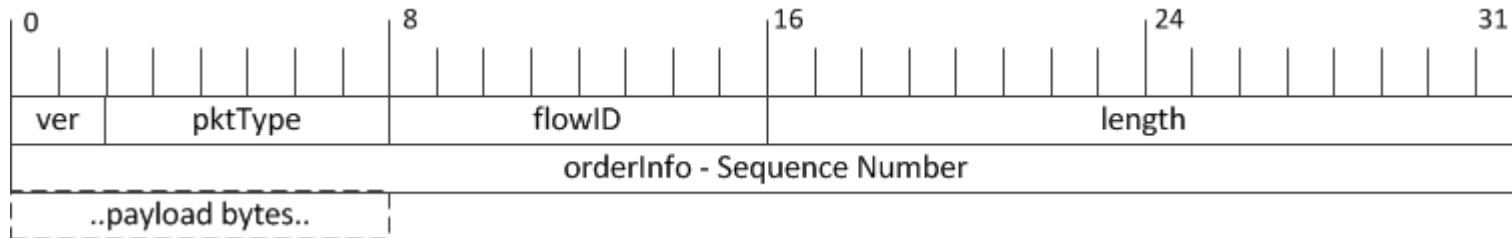
Proposal

- ❑ Change the RoE common header:
 - Combine 2 bit “ver” and 6 bit “pktType” to an 8 bit “pktType”.
 - Relocate existing pktType code points by adding 0x40 to existing values.
 - Compatible with IEEE P1904.2 code points if RoE does not get its own EtherType.

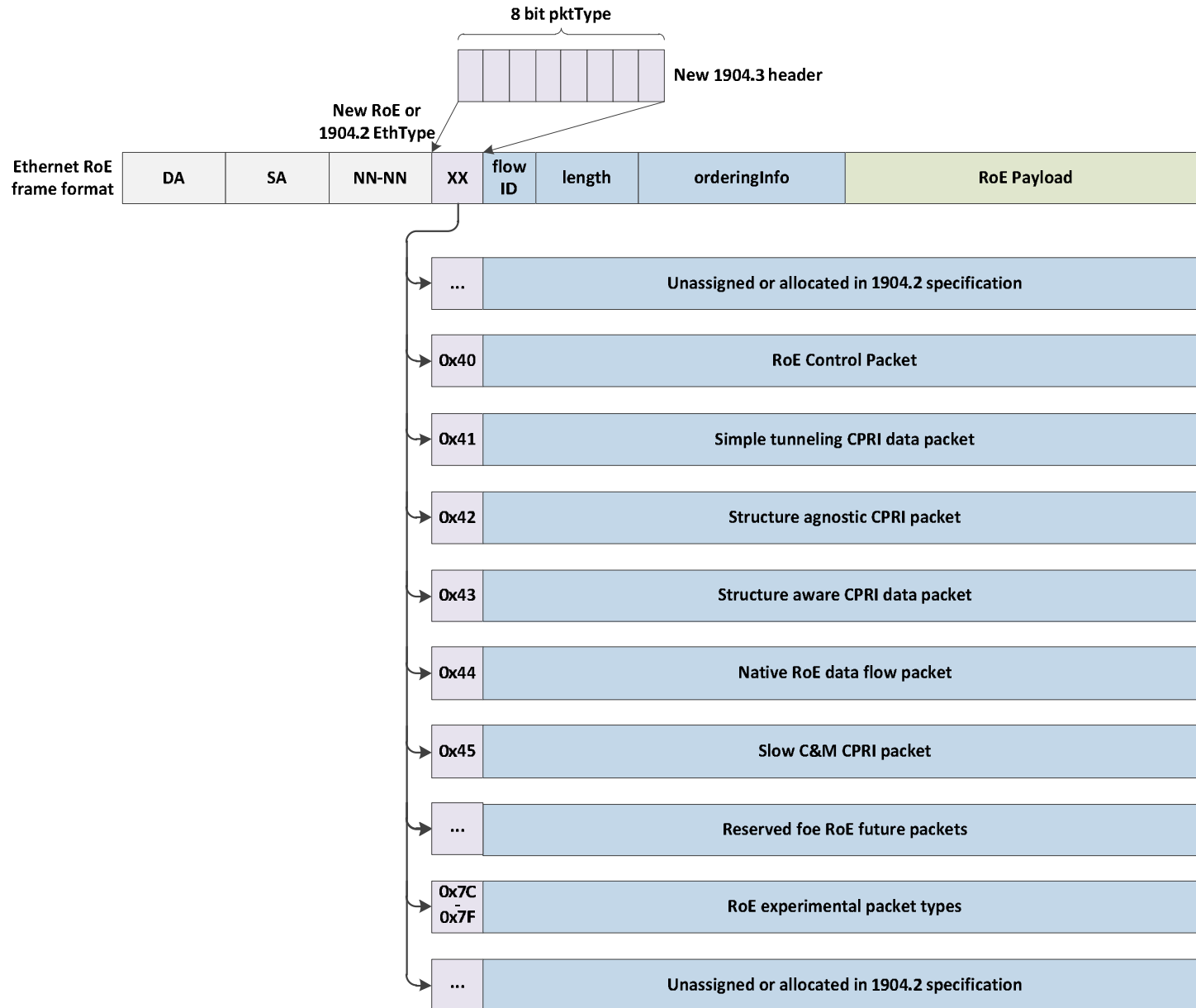
- ❑ Clarify that unknown pktTypes are discarded with possible system error event.

- ❑ Document the entire frame format in 1904.3 spec as well.

RoE common header change



RoE frame format illustration



Motion # ____

- Approve the proposal for the RoE header format change as described in tf3_201604_korhonen_pktType_1.pdf page 5 and shown in page 6.
- Jouni Korhonen making the motion
- Seconded by N.N.
- Technical motion ($\geq 2/3$)
- Yes: ____, no: ____, abstain: ____