IEEE P1904.3 TF Radio over Ethernet update

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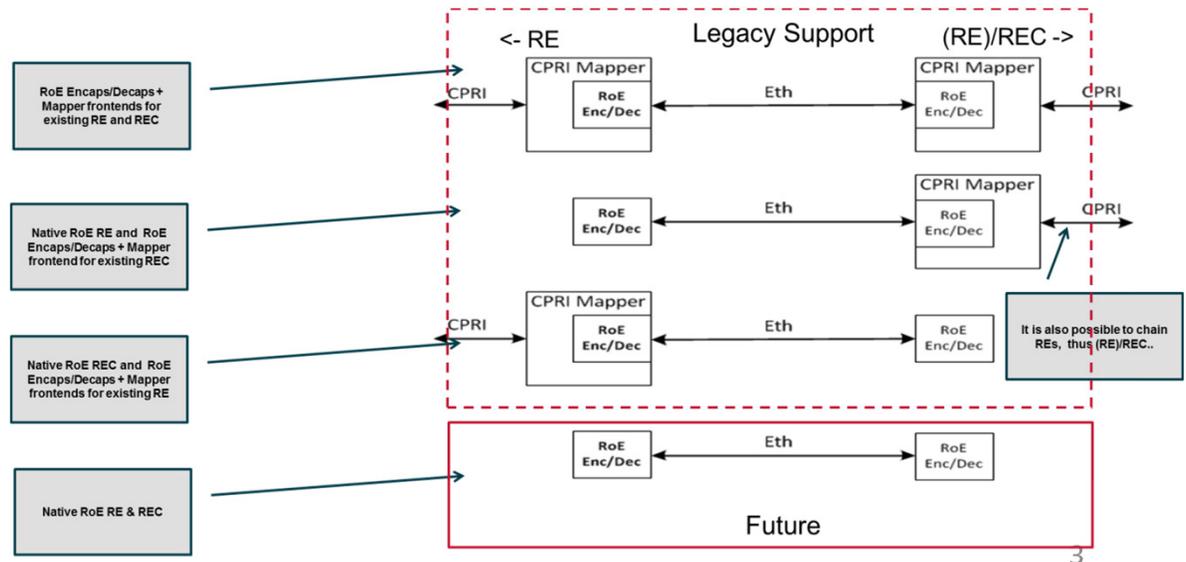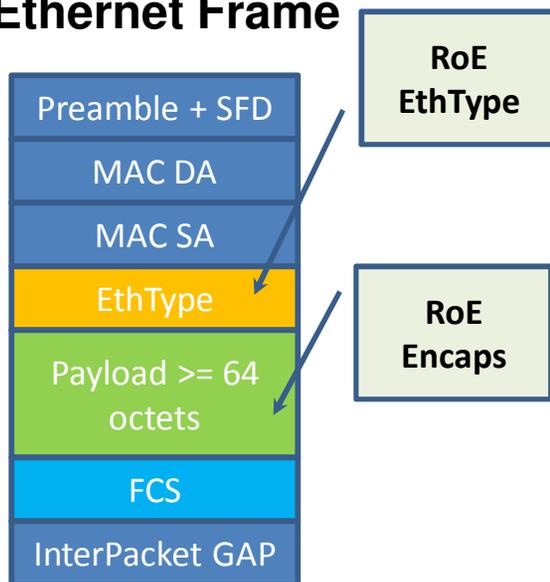
Disclaimer

- This is not an official IEEE 1904 WG output; just an informal update what is happening regarding Radio over Ethernet in IEEE P1904.3.
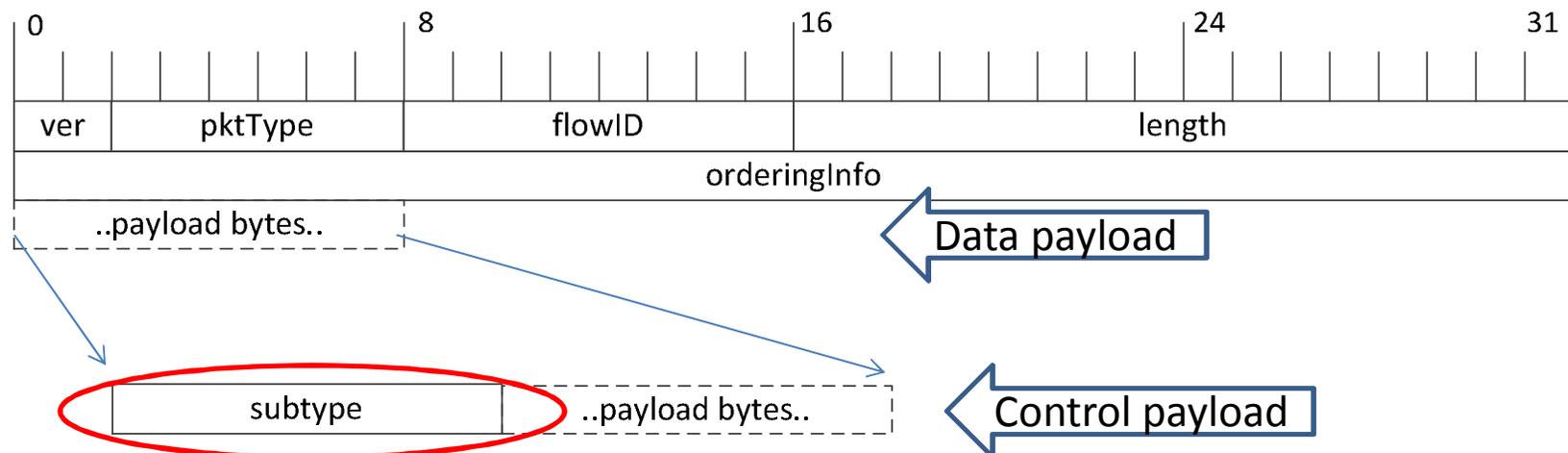
What is IEEE 1904.3 TF and RoE?

- IEEE 1904.3 specifies transport protocol and an encapsulation format i.e., RoE for transporting time-sensitive wireless radio related application streams between two endpoints over Ethernet-based transport networks.

- IEEE 1904.3 also specifies mappers from current CPRI to native RoE and vice-versa but is not limited to CPRI.

Ethernet Frame

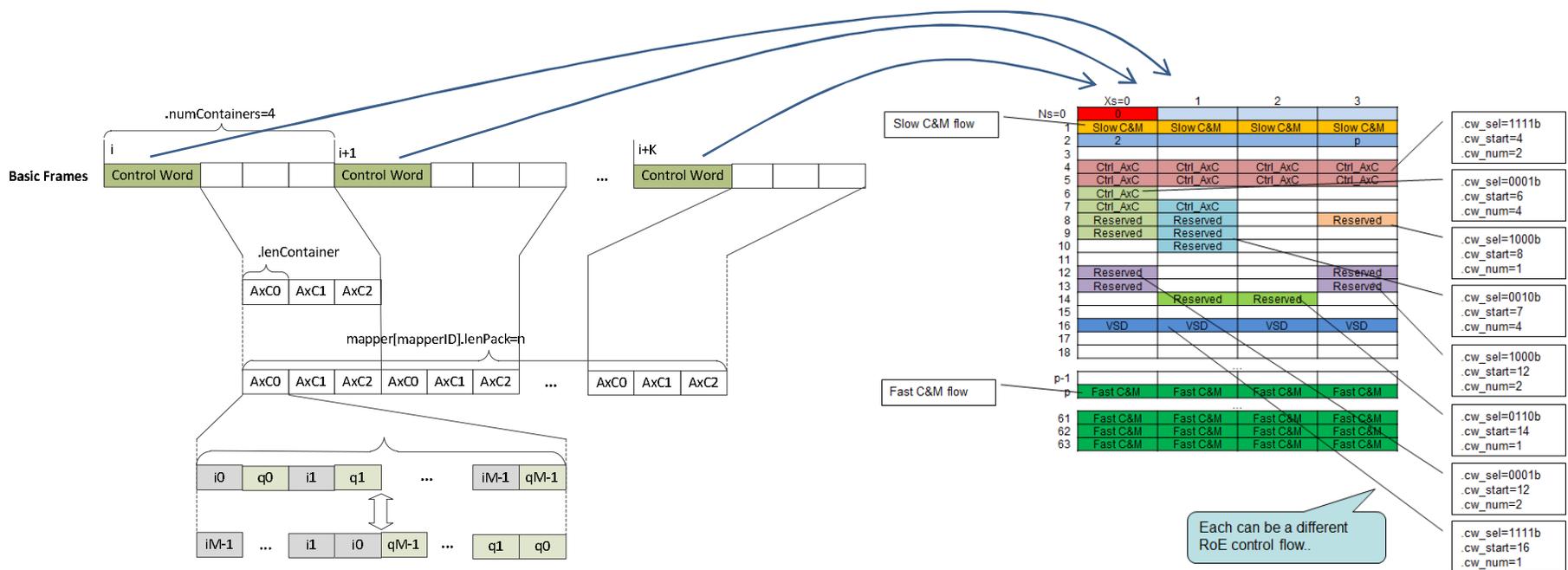| Ethernet Frame |
|---|
| Preamble + SFD |
| MAC DA |
| MAC SA |
| EthType |
| Payload >= 64 octets |
| FCS |
| InterPacket GAP |

RoE EthType

RoE Encaps

Status

- Draft D0.3 available (editor's in-progress version).
  - http://www.ieee1904.org/private/3/drafts/tf3_drafts.shtml
  - Still a lot of details, fixes and "text for good flow" to be add.

- Header format and basic packet formats have stabilized.
  - Data (stream) packets and control packets.
  - Header field related rules & processing agreed.

0								8								16								24							31
ver	pktType			flowID						length																					

orderingInfo

..payload bytes..   ⟵ Data payload

subtype   ..payload bytes..   ⟵ Control payload

Status cont'd

- Mappers, related "description language" and packetization rules reaching conclusions.
  - Three mappers currently: tunneling, CPRI structure agnostic and CPRI structure aware.
  - Fast C&M, Slow C&M and VSD/Ctrl_AxC sub-channels also extractable to multiple flows using structure aware mapper.

Q & A

More data available: