

# IEEE 1914 NGFI

## IEEE 1914.3a RoE – Draft D1.2 Open Comments, Day 2

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Teleconference



# Still Open Comments

- See [tf3 2006 D1 2 comment resolution 2.xls](#) in [P1914.3a Standard Drafts, \(password needed\)](#).
- Deselect accept, revise, reject, and blanks from the “final resolution” column to see the open items
  - Comment #11
    - Are uplink/downlink CPRI control channels symmetric?
    - Can the mapper/demapper pair at one RoE endpoint use the same parameter value?
  - Comment #38, 39, 40, 41
    - resolution depends on answer to comment #11

# Comment #11

Comment Number	Comment	Proposed Change	Prop Res Comment	Additional info from resolution discussions
11	The CPRI port fields in Table 8 do not accommodate the scenarios where these values are not the same between the mapper and the demapper. They might be different wrt their corresponding .cpriHDLc, .cpriL1, .cpriEth, and cpriScrSeed (new for 1914.3a) parameters. cpriVer and cpriFecMode are expected to be the same between the mapper and the de-mapper, but it probably makes sense to have independent mapper and de-mapper versions for these parameters too. Structure aware mappings need the above parameters for both the mapper and the de-mapper if CPRI is regenerated by the de-mapper (i.e. the CPRI-->RoE mapper --> RoE demapper--> CPRI application, as per Figure 4 from IEEE 1914.3-2018)..	I believe the original parameters were planned to be for the mapper. This should be clarified.  The 1914.3a mapper status control message passes these parameters from the mapper to the de-mapper and, thus, allows the CPRI to be regenerated. To keep the configuration mechanism consistent between the mapper and demapper, equivalent parameters for the de-mapper should be created. For the demapper, these parameters are read/write instead of read only.	Specify that the original parameters for cpriHDLc, .cpriL1, .cpriETH correspond to the CPRI for the mapper direction and add a corresponding set for the de-mapper direction..  Make two sets (mapper and de-mapper) of the new parameters: .cpriScrSeed, .cpriVer, and .cpriFecMode.  .cpriSpeed and .cpriID are shared between mapper and de-mapper.	Needs further discussion. Save for teleconference with a presentation.  Might need just read-only parameters so values of the mapper status control packets can be read.  Might need to clarify when these parameters are used (SAG, SAW, CPRI-like).

Table 8—CPRI port parameters

enParam - Parameter	Bits	Name	Default	Description	Valid Modes
0 = Identifier	16	.cpriID	0	Each CPRI port in a node has a unique identifier.	All
1 = Port speed	64	.cpriSpeed	0	The speed of the port in Mbps, expressed as a IEEE Std 754™ double precision, binary 64 floating point number.	All
2 = CPRI version	8	.cpriVer	0	Protocol version at location Z.2.0 i.e., control word 2.	structure aware RoE Mode (SAW)
3 = HDLC rate	3	.cpriHDLc	0	HDLC bit rate at location Z.66.0 i.e., control word 66.	SAW
4 = L1 location	5	.cpriL1	0	L1 signaling at location Z.130.0 i.e., control word 130.	SAW
5 = Ethernet pointer	6	.cpriEth	0	Ethernet pointer at location Z.194.0 i.e., control word 194.	SAW
6 = scramble seed	31	.cpriScrSeed	0	The 31-bit seed used to descramble the incoming CPRI stream to the RoE mapper or to scramble the outgoing CPRI stream at the RoE de-mapper. This seed corresponds to the scrambling seed bits, c <sub>30</sub> , c <sub>29</sub> , ..., c <sub>1</sub> , c <sub>0</sub> , from the CPRI specification.	SAW
7 = FEC mode	8	.cpriFecMode	0	The CPRI forward error correcton (FEC) mode on the incoming CPRI stream to the RoE mapper or on the outgoing CPRI stream at the RoE de-mapper. 0 RS FEC disabled mode 1 RS FEC enabled mode 2–255 Reserved for future use by IEEE Std 1914.3.	Structure-agnostic RoE line-coding-aware mode (SAGLC) SAW
68–255				Reserved for future use by IEEE Std 1914.3 for future use by IEEE Std 1914.3.	

- At mapper, these CPRI parameters are found by the CPRI framer and passed to the mapper. They are read-only parameters, as per current YANG model.
- At demapper, these CPRI parameters are given by RoE mapper status control packets
  - Parameters need to be added
  - Are they auto-configured by Proxy Master state-machine (and thus also read-only)?

# Comment #11

From June 23, 2020 teleconference:

- For RoE demapper, it makes sense to have a set of writable parameters whose values come from RoE mapper status control packets
- Are CPRI parameters symmetric in uplink and downlink?
  - If they are asymmetric, then we need individual parameters for each mapper and each demapper
  - If they are symmetric, how are the parameter value at each mapper and demapper in a bidirectional communication channel?
    - Mapper A at the Proxy Slave, which is connected to a CPRI master gets its parameter values from the incoming CPRI
    - Demapper B at the Proxy Master gets its parameters from Mapper A's mapper status control packets
    - Mapper B at the Proxy Master – should it get its parameters set by Demapper B or by its incoming CPRI?
    - Demapper A at the Proxy Slave – should it get its parameters set by Mapper A or by Mapper B's mapper status control packets?

# Comment #38

Comment Number	Comment	Proposed Change	Prop Res Comment	Additional info from resolution discussions
38	this comment is for line 57 of page 91 I think cpriVer could be a configurable bit. It is true it can be extracted by a control process, I think this control process could be what configures this bit.	Remove config false statement	1914.3-2018 reads that "The control process extracts L1 protocol fields c) to f) and populates them into the CPRI parameter list shown in Table 8." so it is clear from this that the parameters of Table 8 are read-only. This is aligned with the fact that CPRI specifics should not be re-specified in 1914.3.	<p>Depends what is meant by "populates". Populates could mean the control process writes the value to the parameters.</p> <p>Agreement that this could be read only. Note that .cpriSpeed would also be a read-only parameter if this concept holds.</p> <p>Need to look at how autonegotiation works with these parameters to determine if it will work as read-only before finalizing.</p> <p>Might need to add normative text to clarify how these parameters are used.</p>

- Comments #39, 40, and 41 are similar but are for the cpriHDLC, cpriL1, and cpriEth parameters
- We agreed for comment #93 resolution that parameters like these are passed from the CPRI layer to the RoE layer through some "out of scope" mechanism
- An informative annex would be added to describe this concept of passing parameters from non-RoE layers to the RoE layer and to list the corresponding parameters