

Technical Comments: Delimited Read

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Compliments: Delimited Read

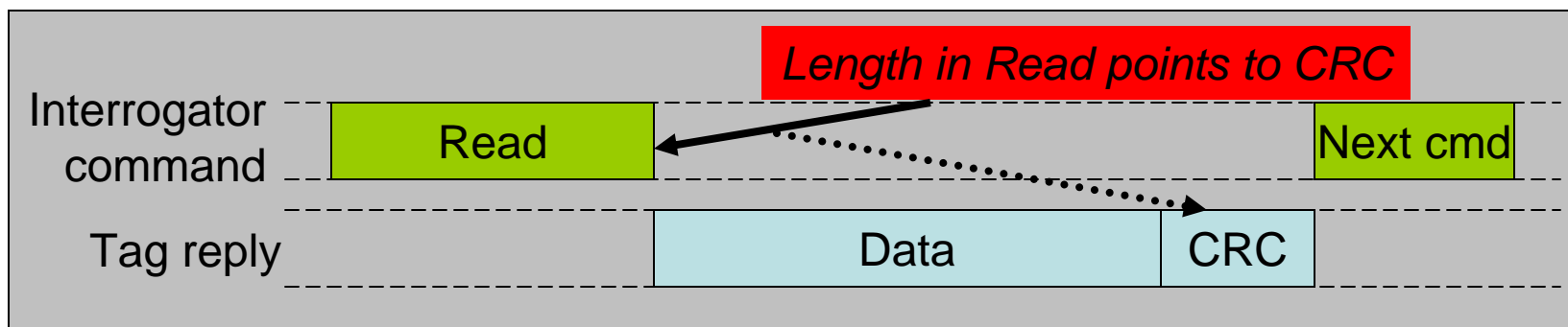
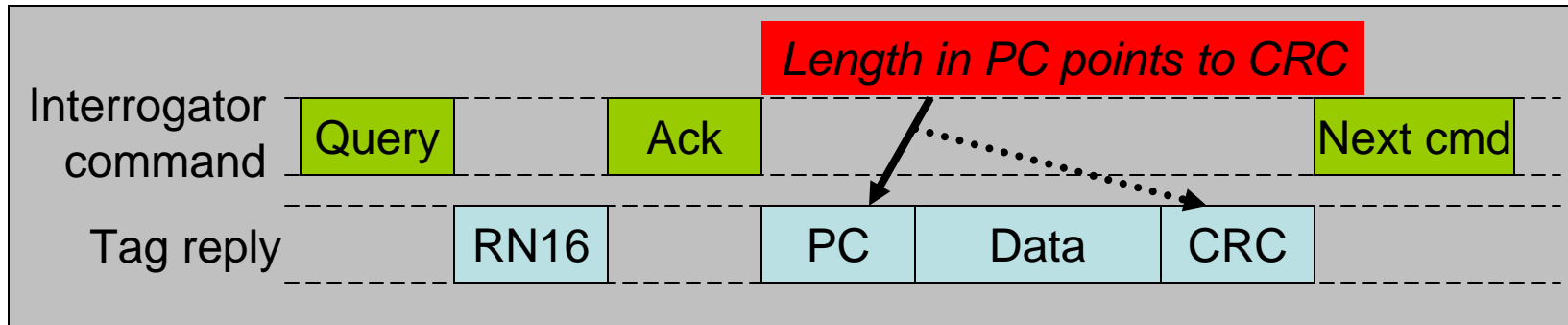
- Delimited Read potentially offers higher throughput and definitely has technical merits and should be considered by this committee.
- The full description of known benefits of DR were reviewed in Pittsburgh and may be reviewed on LiveLink:
[SG3_200808_701_Packed_Objects.zip](#)

Outstanding Concerns: DR

- Lacks forward compatibility (slide 4)
- Limited to one type of data encoding (slide 5)
- Lacks the time for full analysis – examples:
 - Possible data corruption (slide 6)
 - Questionable performance benefit (slide 7)
- Conclusions (slide 8)
- Recommendations (slide 9)

Lacks Forward Compatibility

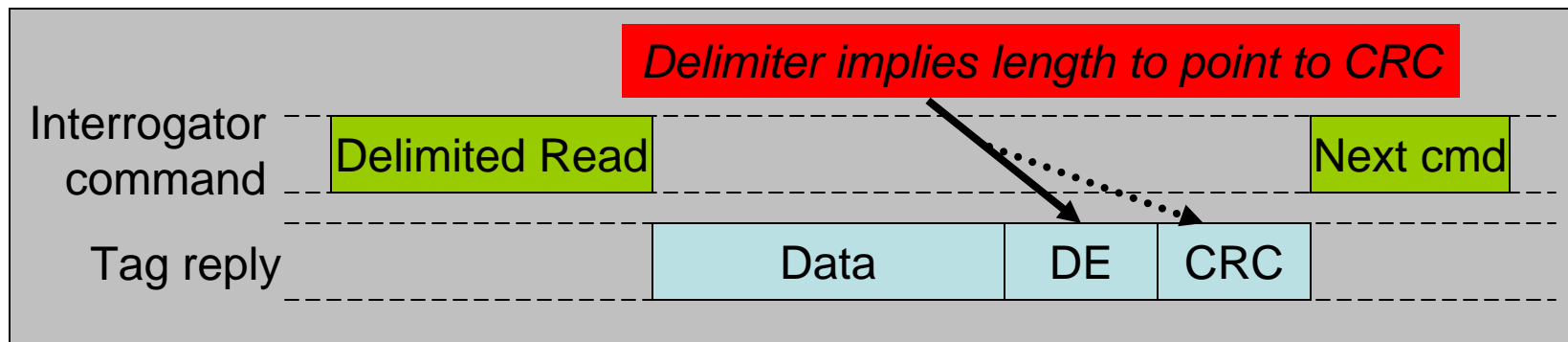
- To validate data with CRC, reader needs length of response to extract CRC *because the end of the response is not always clear*



- Length is not explicitly provide in Delimited Read

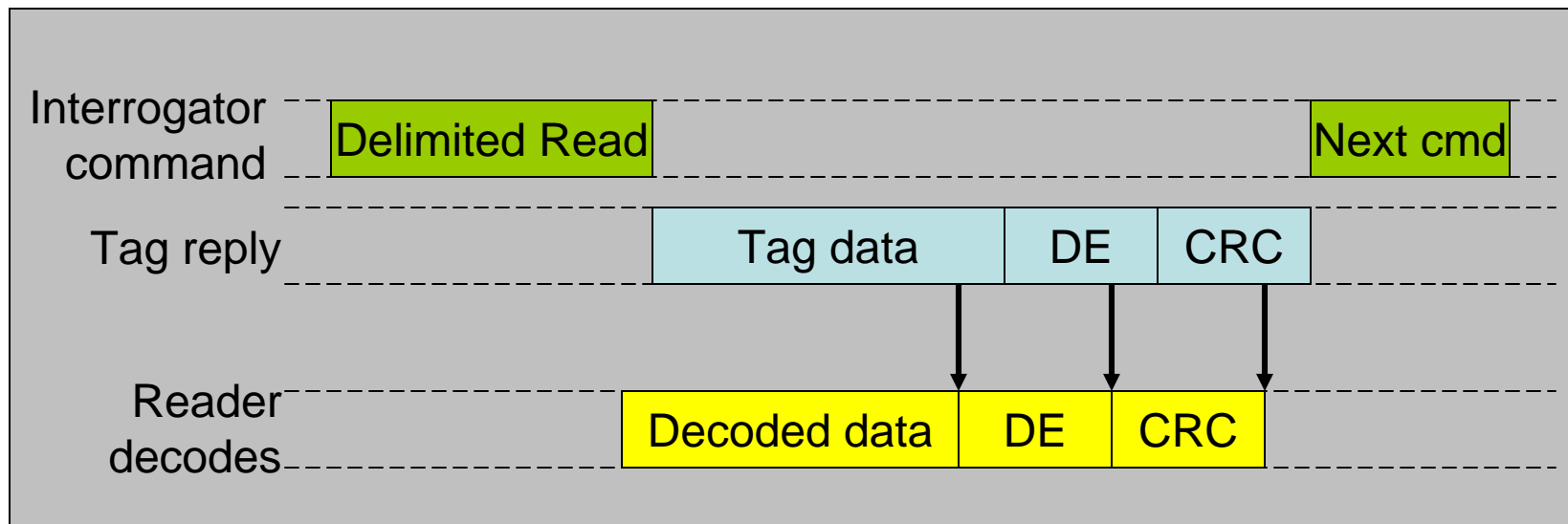
Limited to One Encoding

- Delimited Read uses fixed delimiter (DE) to indicate end-of-data – why not other DEs?
- Delimited Read increments through memory to transmit – why not decrement?



Possible Data Corruption

- May increase chances of corruption since tag reply may differ from the reader decoding: example of bit shift may relocate DE and CRC



Questionable Performance Benefit

- Analysis of benefit limited to logical layer, physical layer attributes such as error rate and data rates not included
- Brief analysis that included error rate shows a logical performance improvement of less than 3% (528 vs. 544 bits)

Conclusions

- Delimited Read potentially offers higher throughput and definitely has technical merits and should be considered by this committee.
- DR introduces a new technique to validate data – but it is not forward compatible
- DR is limited to one type of encoding – but other encoding schemes could benefit too
- DR requires full technical analysis to resolve outstanding issues, e.g., performance improvement/data corruption.

Recommendation

- DR should not be rejected or adopted until we take the time to seriously evaluate all technical aspects and potential impacts of this proposal.
- More time is required to analyze and, if needed, modify DR.
- DR should be considered within the next revision of 18000-6c or as part of a “File Management” NWIP.