

QUESTIONS: 4/15
SOURCE: ITU-T Question 4/15
TITLE: Communication to IEEE P802.3ah

COMMUNICATION STATEMENT

TO: IEEE 802.3ah Ethernet in the First Mile Task Force
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APPROVAL: Agreed to at ITU-T Q4/15 Rapporteur Group meeting, Ottawa, Canada, 5-9 August 2002

FOR: Information and Action

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Mr. Frazier, Mr. Barrass,

Thank you for the communications statement from your Vancouver EFM Task Force meeting.

Regarding your request for G.994.1 codepoints for your use, we will reserve one each SPar(1) bit for your short-reach PHY and your long-reach objective PHY (for a total of two). Please let us know the names of these PHY's so we may label the bits correctly. When you have completed the definition of the Level 2 and Level 3 parameters corresponding to these SPar(1) bits, please communicate them to us so that we may list them in our document.

The final allocation of these bits, while it does not require revision of the G.994.1 Recommendation, is pending the completion of the procedures described in Appendix IV/G.994.1, which requires us to contact our Study Group leadership as well as the ITU-TSB.

The latest update to G.994.1 accompanies this statement. As noted previously, this document is copyrighted by ITU and is made available to support the work of your committee; distribution outside of your committee is prohibited.

Regarding your request for clarification of our comment "we note that in most instances, the Reed-Solomon decoder does not have additional information to communicate to the gamma interface concerning the reliability of the received packets", we offer the following elaboration:

Due to latency constraints, many existing DSL deployments do not enable Reed-Solomon coding. For example, in general Reed-Solomon coding combined with interleaving will add approximately 16 milliseconds of latency in ADSL systems.

We note that one of the PMD's you are considering, SHDSL, does not include Reed-Solomon encoding.

Further, it should be kept in mind that burst noise is a common impairment on voice-grade copper, which results in very high bit errors at the input to the Reed-Solomon decoder during the burst duration. In the presence of such impulse noise, the proposed signal from the Reed-Solomon decoder may not provide the desired information.

In short, we are willing to investigate the addition, in revised Recommendations, of the signal proposed for the α/β -interface, in those Recommendations containing Reed-Solomon encoding. Be aware that it may not achieve the data integrity goals you have, however.

Please note we remain very willing and interested in maintaining a high degree of co-operation between our two efforts. A detailed description of the robustness requirements you have at the γ -interface will allow us to more intelligently determine what changes we could propose to our TPS-TC sublayer to satisfy your requirements. Specifically, what are

your requirements for Bit Error Rate, and undetected packet errors, at this interface? Are any other characteristics required that are not in the current TPS-TC?

As an example, would increasing the length of the CRC used in our TPS-TC be of interest?. Such an approach would be applicable to all the DSL Recommendations you are considering using. We could investigate making additions such as this in revised Recommendations.

In terms of schedule, note that we have one additional Rapporteur Group meeting in between your October Task Force meeting and your November Plenary meeting. In addition, a joint meeting between our two groups is also a possibility. These are then followed by our Study Group meeting in January. It is desirable to have any potential revisions to Recommendations agreed to by our two groups ready by the January meeting.