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Question2/15

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TITLE : **AAL for MPEG-2 Transport Streams**

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Introduction :

Discussions are presently ongoing as regards the choice of AAL for video services. Two AAL are currently under consideration in Draft Recommendation H.222.1 : AAL type 1 and AAL type 5. Although AAL type 1 is seen as appropriate for the transport of MPEG-2 signals, the use of AAL type 5 needs further investigations.

Discussion :

H.222.1, section 6, lists a number of functions to be performed. They include time-base recovery and jitter removal and are necessary to comply with RTI specifications (Real-Time Interface specification, ISO/IEC 13818-9). The importance of the RTI specification should be stressed in particular for those applications where interoperation of equipment of different nature is performed (e.g. cascading of different transmission / broadcasting media) and where it is necessary to clearly identify the performance associated to each section of the complete system.

AAL type 1 provides proven ways to meet RTI specifications, and in addition provides bit-error correction and cell-loss correction mechanisms, well-adapted to ATM networks.

If AAL type 5 were used instead of AAL type 1, several options need be considered :

1/ to use AAL type 5 without any service-specific convergence sublayer. This would make it practically impossible to meet present RTI jitter specifications. We understand that SG 15 does not consider this option.

2/ to implement proprietary systems. This would fall outside the scope of international standardisation bodies

3/ to define and specify a service-specific convergence sublayer providing at least the jitter removal function of AAL type 1.

Conclusion :

Before the use of AAL type 5 is considered as a serious candidate, it is necessary to define and describe the selected option in terms of convergence sublayer so that a clear comparison between both AALs can be made.