CCITT SG XV
Working Party XV/1
Experts Group for ATM Video Coding

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SOURCE : JAPAN
TITLE : Requirements to the function of AAL type 1
PURPOSE : Proposal

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1. Background

A specification of the AAL type 1 is under discussion in SG XVIII, and it has been fixed up to SAR at the last meeting in June. Considering that CBR services will also be used for video coding in B-ISDN and that the function of AAL type 2 will be discussed based on the function of type 1, it is necessary to submit requirements for the AAL type 1 functions to SG XVIII as early as possible.

2. Requirements

In order to determine the functions of the AAL type 1 CS layer required for video transmission, the following terms should be clarified and required.

- error correction

(i) interleaving

CMTT suggested to SG XVIII that the CS layer should be capable of interleaving. Considering that the delay produced by the interleaving processing depends on transmission rate (see section 3 of document AVC-50), the interleaving function should be optional, not mandatory.

(ii) cell loss notification

Since not all erroneous information can be corrected by AAL, cell loss notification is indispensable for the decoder to lessen the damage to the reconstructed picture.

- 8 kHz timing

When conventional terminals are used, 8 kHz timing is necessary to synchronize the first bit of each octet between the sender and the receiver. CMTT also requires 8 kHz timing on behalf of conventional codecs, so SG XV should also require 8 kHz timing for the same reason.

- clock

(i) network clock

A network clock based on 155.52 MHz is very important as a reference signal. Since 155.52 MHz is very high for video codecs, it is proposed to inquire whether 155.52/n (n=2,4,...) is available.

(ii) recovery of video source clock

At the receiver the recovery of video signal clock for some types of video codecs - ex. camera clock - may be required. This function should be provided as an optional function.

3. Conclusions

Requirements and considerations concerning the above should be forwarded to SG XVIII.

End