SOURCE   : Japan
TITLE   : Consideration of LAN and MAN
PURPOSE   : Discussion

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1. Introduction

We are discussing video coding in the ATM environments. LAN and/or MAN may take an important role as NT2 connected to B-ISDN. This document focuses on the influence of LAN and MAN on AAL.

2. Characteristics of variable bit rate video signal

Two types can be considered about variable bit rate video signal;

(a). Variable but continuous bits

It means that user information payload in the cell can be filled in limited time and that stuffing byte for filling up the cell is unnecessary.

(b). Structured data without assurance of being continuous bits

It means that the maximum interval between two successive structured data is not limited and that stuffing bytes are necessary for filling up the cell to guarantee real time transmission. For example, video frame skipping is allowed and no limitation is adopted for minimum bit rate.

We usually consider VBR video signal as type (a) and required the commonality between AAL type 2 and AAL type 1. However, if VBR video signal is of type (b), the commonality between AAL type3/4 and AAL type2 may have to be sought.

3. Influence of LAN and MAN

Some types of LAN/MAN uses no call administration. It means that there is not network resource assignment and that user sometimes cannot send the information. In other words, there is no guarantee when next video frame signal can be transmitted. Therefore, in this case it is suitable to consider that VBR video signal is of (b) type signal.

4. Conclusion

LAN and MAN may take important role in the ATM environment as NT2. We should pay attention to the video signal transmission through LAN and MAN. In some case, commonality between AAL type 2 and AAL type 3/4 is more important than that between AAL type 2 and AAL type 1.