

SOURCE : Japan
TITLE : Consideration of LAN
PURPOSE : Information

1. Introduction

We are discussing video coding in B-ISDN environments where LAN may play an important role as NT2. This document focuses on the influence of LAN on H.32X terminals.

2. Comparison between B-ISDN and LAN

Table 1 shows the difference between B-ISDN and LAN in network performance aspects.

Table 1 Difference between B-ISDN and LAN

		B-ISDN	LAN
Delay		Guaranteed by QOS	Depends on the protocol Not guaranteed(Ethernet) Guaranteed (FDDI-II)
Error	Unit	Cell	Packet (usually longer than cell)
	Main reason	Congestion	Congestion (at the gateway) bit error
	Indication	can be provided by AAL	Usually not provided*
Clock		Standard clock is available	Standard clock is not always available

* Some layer 4 protocol, for example TCP/IP, can detect the packet loss. However, this kind of protocol is developed for non-realtime data and requests a retransmission without sending an indication of packet losses. A new protocol may be necessary to get the indication.

3. Influence of LAN on H.32X terminals

(1) Delay

What should the terminal do if information does not arrive beyond the expected maximum delay time? (Out of standardization?)

(2) Error resilience

Should we use the same techniques as cell loss resilience?

Should we request the packet loss indication outside the coding algorithm?

(3) Clock

Should the accuracy of local clock in the terminal be standardized to guarantee the video frame freeze / drop ratio?

4. Conclusion

LAN may play an important role in the ATM environment as NT2. Some considerations are made about the difference between B-ISDN and LAN. The influence of LAN on H.32X terminals are discussed.