ITU Telecommunication Standardization Sector
Study Group 15
Experts Group for Video Coding and System in ATM and Other Network Environments

Document AVC-729
January 1994

SOURCE : JAPAN
TITLE : Comments on H.32Z
PURPOSE : Discussion

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1. Introduction

There have been some discussions about the relation between H.32Z recommendation [1] and non-guaranteed band-width LANs. Two suggestions are described in AVC-714 [2]. This document also discusses this matter.

2. Guaranteed / Non-guaranteed band-width LANs

In Iso-Ethernet (IEEE 802.9) band-width is guaranteed. On the other hand in other existing LANs, including Switched Ethernet, band-width is not guaranteed (see Annex) because there is no negotiation protocol about the band-width between terminal and LAN manager.

However when the traffic is small compared with physical bitrate, a non-band-width guaranteed LAN can behave as a 'virtual' guaranteed band-width LAN.

3. Suggestion to H.32Z

The minimum requirement for H.32Z is that ' H.32Z + Gateway ' should work as a 'virtual' H.320 terminal as shown in Fig. 1 [3]. Whether the LAN is actually guaranteed band - width LAN or a 'virtual' guaranteed band-width LAN is not the matter.

Therefore it may be the good way that H.32Z recommendation describes the requirement as shown in Fig. 1 and does not specify whether LAN is guaranteed band-width or not .

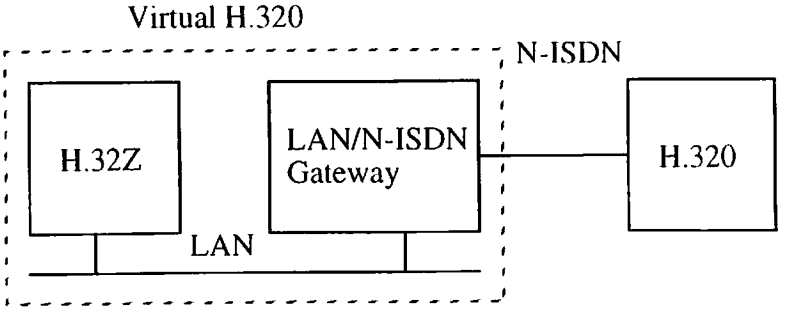

Figure 1 Connection between H.32Z and H.320

On the other hand there are many possibilities about the terminal configuration and protocol/procedure between H.32Z and Gateway except the case for Iso-Ethernet. It is not realistic to describe the configuration and protocol/procedure for all cases in a limited time schedule [2]. Then it is suggested that the terminal configuration and protocol/procedure for Iso-Ethernet case should be described as an example, leaving other cases for further study.

4. Conclusion

In some situation a non-guaranteed bandwidth LAN can behave as a 'virtual' guaranteed band-width LAN. Therefore the followings are suggested;

1) The requirement (' H.32Z + Gateway ' should work as a 'virtual' H.320 terminal) should be described in H.32Z recommendation.

2) H.32Z recommendation does not specify whether LAN is guaranteed band-width or not .

3) The H.32Z terminal configuration and protocol for Iso-Ethernet should be described as an example.

END.

[References]

[1] AVC-718 Draft H.32Z (Editor; Mr. Morrison), 25 November 1994,

[2] AVC-714 LAN Video Standardization (Mr. Skran), 22 December 1994,

[3] AVC-696 An example of call setup procedure in a H.32Z terminal (Japan), November 1994, Singapore.

Annex 1 to AVC-729

1. Introduction

IEEE802.9 (Isochronous Ethernet) and Switched Ethernet are briefly explained.

2. Isochronous ethernet (Iso-ethernet)

- EIso-ethernet provides the service of both 10Mbps existing ethernet and the wide band channel of 96 x 64kbps simultaneously by existing 10base-T cabling facilities.
- EThe hubs must be replaced by the Iso-ethernet supported hubs.
- EThe network interface card must be replaced by the Iso-ethernet supported one if the terminal needs the wide band channel service.
- ETerminals with network interface cards for the existing ethernet can also be connected to the Iso-ethernet hubs. Only ethernet service is available for such a terminal.
- ETraffic of the wide band channel is independent on that of the ethernet.
- EIso-ethernet has now gone out to a three-month Working Group ballot as IEEE 802.9a.

3. Switched ethernet

- EThe ethernet hubs must be replaced by the switched ethernet hubs.
- EWe need not replace the network interface card for the existing ethernet of the terminal.
- ESince the hub has the switching functionality, 10Mbps bandwidth is available for each terminal.

4. Conclusion

In Iso-ethernet environment, B-channels are directly extended to each terminal independent of the ethernet channel. Audiovisual communication through this B-channel does not need packetization of the H.221 frame or any further considerations.

Switched ethernet only widens the available bit rate of the terminal by the switching functionality of the hub. At least current available switched ethernet does not provide the network management functionality. We believe switched ethernet should not be included in the category of the bandwidth guranteed LAN.

END