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

Document AVC-9
Nov. 12th 1990

SOURCE :JAPAN
TITLE :Connectivity with current system and recommendation schedule
PURPOSE:Discussion

I. Connectivity with current system

There are several opinions in Japan on connectivity between a new standard codec and an existing standard codec. For example,

1. A terminal with an ATM new standard codec should be able to connect to any terminal with the existing standard(H.261) codec. However, the new ATM coding algorithm might differ from H.261. One of possible architectures is that a terminal has substantially two codecs (or two software programs) for H.261 and for ATM. The other architecture is that the H.261 algorithm is embedded in the new ATM video coding algorithm. Such terminals are defined to have "terminal level connectivity". (Fig.1)
2. As ATM network has unique features different from those of STM, and new advanced technologies may provide better services for users than the existing one does, new codec algorithms should be studied free from the previous standards.
3. In studying a new algorithm, as many parts of the previous standard algorithms as possible should be utilized, to reduce costs for developing another LSI's.
4. It is difficult to consider "connectivity" in a specific way at this time because the application of this ATM codec standard is not clear yet.

It is premature to integrate these opinions in a firm proposal. At least most of us recognize that (A)The terminal level connectivity is indispensable. (B)A new coding algorithm can be different from H.261, though the difference may vary from "almost the same as H.261" to "completely new one".

Summarizing these discussions, we conclude that:
To keep compatibility of ATM video coding with the existing standard(H.261) is preferable.

However, as ATM is a new transfer mode with different characteristics from those of STM, it is hardly possible to establish completely the same algorithm compatible with H.261. For low bit rate STM network, terminal level connectivity is possible and indispensable. For high bit rate ATM network, H.261 algorithm may be modified. How much it should be modified is a future problem. From now on, we should study a new algorithm suitable for ATM network, taking into account its performance, hardware cost and so on.

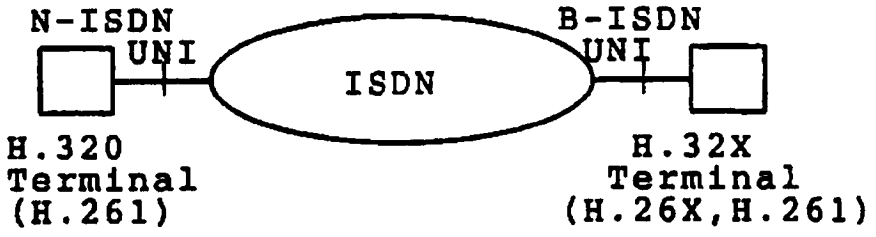

Fig.1 Terminal Level Connectivity

II. Recommendation schedule

In this Experts Group, ATM video coding algorithm(s) for B-ISDN AV terminals will be studied and the recommendation is expected to be fixed until 1994. The first outcome is expected in 1992 as an outline recommendation to clarify general framework and direction: such as contents of recommendation, services to be covered, target applications and so on.