Telecommunication Standardization Sector
Study Group 15
Experts Group for ATM Video Coding
(Rapporteur's Group on Part of Q.2/15)

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SOURCE : Japan
TITLE : Proposal for Field Trial of H.32X ATM Video Codec Interconnection
PURPOSE : Proposal

1 Background and proposal

At the last meeting at Boston/New York, Simple, Main and Next Profile and associated Levels of H.26X were almost fixed. Other parts such as Audio coding, Multimedia Mux, and AAL Type 2 which are required to complete H.32X are to be standardized in early 1994. For reduction of ambiguities in specifications of the standards, bit-stream exchange and decoding tests have already started in MPEG. These verification tests are indispensable for finalizing the standard specifications.

In the case of ATM communications, however, where interaction between a terminal and network is essential, these "software-based" verification tests are not sufficient and interconnection tests using actual hardware video codecs through ATM transmission lines are thus necessary.

Recently some communication carriers have announced early commencement of ATM services possibly in a leased circuit form and several ATM network equipments such as ATM MUX, ATM XC or switch have been coming available on a market. These trends promise a sufficient experimental environment for the interconnection tests in 1995.

Considering these situations, we propose a field trial of H.32X video codec interconnection through ATM transmission lines for verifying related draft recommendations and hopefully for encouraging early development of ATM video codec products.

2 Discussion

2.1 Specification of experimental codec

Different from the case of Flexible Hardware trial for H.261 which has definite scope, H.26X is intended to be generic and its parameter range is very wide. This means that specification of H.32X codec used for interconnection trial should be made carefully. Generally speaking, it is desirable for experimental codecs to have same specifications as those of video codecs which will appear on a market in a near future most likely.

2.2 Schedule

Taking into account a timetable of the related recommendations necessary for designing an experimental codec, middle of 1995 seems a good candidate for performing the field trial.

2.3 Test method

Considering the purpose of verification test, we think that back-to-back codec connection is not sufficient for the field trial and codec connection through some ATM transmission equipment such as a real ATM network, ATM MUX, ATM XC, ATM switch or ATM network emulator is thus necessary. These 'equipments' should be conforming to the ATM recommendations as far as possible. Some ATM specifications such as AAL Type2, however,

may be fixed later in 1994 and may not be supported by these equipments. In this case, special test tools will be required to be developed which provide these functionalities. In addition, special test functions like cell loss emulation/measurement and bit error emulation/measurement will be indispensable for fruitful experiments.

3 Conclusion

Field Trial of H.32X ATM video codec interconnection is proposed for verifying the recommendations and encouraging the ATM video products.