Telecommunication Standardization Sector Study Group 15 Experts Group for ATM Video Coding

(Rapporteur's Group on Part of Q.2/15)

Document AVC-653 July, 1994

SOURCE : Japan

TITLE : Comments for Editor's notes in H.32Y draft recommendation

PURPOSE : Proposal

All items are based on  $\rm H.32Y$  draft recommendation which has been distributed by the editor,  $\rm Mr.\ Okubo.$ 

# 1. Scope

{Editor's note - H.32Y may optionally support extra inband functionalities beyond those of existing H.320 terminals, such as negotiation for use of SRTS. This point needs further study.}

==> SRTS is not appropriate as an example of the H.32Y "extra functionalities" in this note. (see 5.6)

## 4.2 System configuration

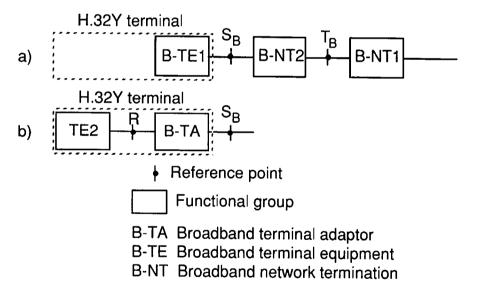


Figure 1/H.32Y Reference configuration

{Editor's note - is there any need to mention interface specifications for the junction point R between TE2 and B-TA?}

==> The specifications for the reference point R should be out of standardization.

# 5.6 AAL for user information

AAL Type 1 as defined in I.363 shall be used for transmission of audiovisual information with the following parameters;

SAR

\* CS {Editor's note - cell loss correction if bit rate >= 384 kbit/s ?}

{Editor's note - a specific subset of AAL Type 1 should be spelled out here for "circuit emulation"}

==> The following Table shows AAL and Q.2931 parameters for  $\rm H.32Y$  application.

Table N-ISDN circuit transport

AAL type	AAL type 1
Subtype	circuit transport
CBR rate	64 or nx64 kbit/s
CBR rate multiplier	n (6, 24 or 30)
Source clock frequency recovery	Null (Note 1)
Error correction method	Not used
Structured data transfer (SDT) method	Used for nx64 (Note 2)   Not used for 64 kbit/s
Partially filled cell method	Not used 
Error status indication at the receiver side	Not used 

- Note 1) Synchronous mode is used, hence there is no need to use SRTS and adaptive clock method.
- Note 2) SDT length is 6, 24 or 30 octets. Although H.32Y does not require SDT method, the N-ISDN circuit transport includes support of SDT by its definition.
- ==> Correction of cell losses and payload bit errors can be supported by the short interleaver method [I.363.X]. However, if the value of Cell loss ratio is  $10^{**}-9$  that is assumed as average case in AVC-635, mean error free time from cell loss is 51 hours for 2 Mbits/sec [AVC-657]. Although mean error free time from bit error is extremely shorter than this time, H.261 have BCH and does not suffer from up to two random bit errors in a 511-bit block. In this case short interleaver may not be necessary.

Since objective values of Cell Loss Ratio (CLR) assured by B-ISDN is uncertainTherefore, Table for video signal transport with cell loss correction (see annex 2), should be described in the Appendix as an information until the necessity of this method becomes clear.

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#### 5.7 Call control

A call is established through the procedures defined in Q.2931.

{Editor's note - a specific set of parameters should be described here. I need your help!}

==> Clause 3.2 and Appendix 2 to Q.2931 (attacehd at the end of this document) define signaling procedure for N-ISDN emulation mode. It should be noted that the same procedure shall apply for the both of the following cases because the originating terminal generally can not know the type of destination terminal.

case 1; H.32Y (or H.320 with TA) - B-ISDN - H.32Y (or H.320 with TA) case 2; H.32Y - B-ISDN - IW - N-ISDN - H.320

# 7.1 Intercommunication between different terminal types

{Editor's note - the following should be covered;

- H.32Y depending on bit rate class
- H.32X terminals connected to B-ISDN}
- ==> H.32Y has the same bit rate class as H.320's.

END

Attached is the revised text of Appendix 2 of Q.2931.

Appendix II

### 0. Scope

This appendix II clarifies information items required for connection establishment in B-ISDN.

## 1. Information items specified by the calling terminal

- 1.1 Information items used for B-ISDN specific services
- (1) B-BC (broadband bearer capability)
  - -Bearer Class
  - -Traffic type (CBR or VBR) <--- only for bearer class X
    -Timing requirement (required or not required) <--- only
    for bearer class X
  - -Susceptibility to clipping
  - -Call configuration
- (2) ATM traffic descriptor
- (3) Quality of service parameter
- (4) AAL parameters
- (5) End-to-end transit delay
- (6) B-LLI (Broadband low layer compatibility information)
- (7) B-HLI (Broadband high layer compatibility information)
- (8) OAM traffic descriptor
- 1.2 Emulation of N-ISDN bearer services and interworking with N-ISDN  $\,$

The calling terminal generally can not identify the type of called terminal (ATM terminal or N-ISDN terminal) at call-setup. Therefore, the same procedure shall apply for both emulation of N-ISDN bearer services between ATM terminals and interworking with N-ISDN (Figure II-1/Q.2931).

The following summarizes the main information items required for emulation of N-ISDN bearer services between ATM terminals and for interworking with N-ISDN.

- (1) N-BC (Narrowband bearer capability)
- -Information transfer capability (speech, unrestricted digital information, restricted digital information,
- $3.1 {\rm kHz}$  audio, unrestricted digital information with tone/announcement, video)
  - -Transfer mode (circuit, packet, frame)
  - -Information transfer rate (bit/s)
  - -User information layer 1 protocol (A-law, ....)
- (2) B-BC (Broadband bearer capability)
  - -Bearer Class (BCOB-A)
  - -Susceptibility to clipping (susceptible to clipping)
  - -Call configuration (point-to-point)
- (3) ATM traffic descriptor

The two types of cell rate defined by Recommendation I.371 are included as follows:

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- (a) Peak cell rate for CLP=0
- -Forward cell rate
- -Backward cell rate
- (b) Peak cell rate for CLP=0 & 1
- -Forward cell rate
- -Backward cell rate
- (4) Quality of service parameter
- (5) AAL parameters
- (6) End-to-end transit delay
- (7) N-LLC (Narrowband low layer compatibility)(8) N-HLC (Narrowband high layer compatibility)
- (9) OAM traffic descriptor

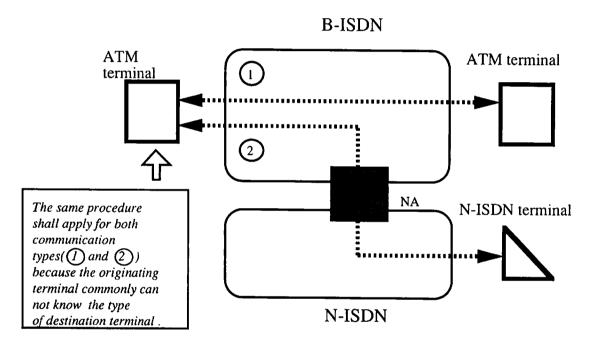


Fig II-1/Q.2931 Two communication types for emulation of N-ISDN bearer services in B-ISDN

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Table video signal transport with cell loss correction	
AAL type	AAL type 1
Subtype	video signal transport
CBR rate	64 or nx64 kbit/s
CBR rate multiplier	n (6, 24 or 30)
Source clock frequency recovery	Null (Note 1)
Error correction method	Used (Error correction method   for delay sensitive services)
Structured data transfer method	Not used (Note 3)
Partially filled cell method	Not used
Error status indication at the receiver side	Not used

- Note 2) Use of this set of AAL1 is optional and depends on a scenario for cell loss conditions of ATM networks.
- Note 3) Structured Data Transfer (SDT) Method may not need to be used for, e.g., 384, 1536 and 1920 kbit/s connections, since H.320 has FAS self-synchronizing mechanism as specified in H.221.