Document # 411

November 17, 1988

CCITT SG XV
WORKING PARTY XV/1
Specialist Group on Coding for Visual Telephony

SOURCE: AT&T

TITLE: MIGRATION PLAN TO MOVE H.221 TO FULL ISDN COMPATIBILITY

There is concern of the compatibility of H.221 Framing Structure operating in the ISDN environment.

Although mention is made that H.221 takes into account G.704, X.30, I.461, I.420 and other Recommendation related to ISDN, there is no specific mention of H. 221 in these documents.

When the framing structure for video telephony was proposed, there was a need to provide for this service prior to full ISDN deployment. H.221 was agreed as the framing structure for this service in the pre-ISDN era.

Now that there is increasing deployment of ISDN services in several administrations, there is a need to move audio-visual services to a more compatible structure. The delay in completing the codec Recommendation for nx384 service gives the CCITT the opportunity to provide a plan to transition from H.221 inband signaling to the more robust ISDN signaling scheme.

A modification to I.461... or the development of a new transition Rec. to provide an interface between the non-ISDN environment and the ISDN environment is required to provide this function.

It is hoped that members of SG XV will contribute to the resolution of issues arising from the operation of visual telephony in a full ISDN environment.

A preliminary list of issues requiring study follows:

1. Call set-up of px64 connections in ISDN according to I.451

2. Multipoint call in ISDN using "D" channel signaling

3. Encryption aspects relating to multipoint calls. This may require generating a unique code word at each codec to define the highest audio level in an Audio block and sending the code word over the "D" Link to the multipoint control unit for use in Audio Switched Video. This technique can also be used in the Pre-ISDN H.221 environment by sending the code word in the "AC" portion of H.221

It is assumed that most of the functions of the H.221 service channel will move to the ISDN "D" channel.

There may be a need for a residual overhead channel to provide functionality for some applications.

The specific requirements of this overhead channel must be defined by contributions.