CCITT SGXV Working Party on Visual Telephony Specialists Group on Coding for Visual Telephony Document # 15 Version -Dec.14, 1984

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1. General

The Working Party on Visual Telephony met in Tokyo from 11 to 14 December 1984, at the kind invitation of NTT, with the support of KDD.

The interim meeting of the Working Party, convened by Collective Letter No.2 of 5 November 1984, was chaired by Mr. F.J. Hofman (The Netherlands) who, as requested at the final meeting of Study Group XV (Geneva, 16 - 23 May 1984) of the previous study period, has continued to act as Special Rapporteur for Question 4/XV until the first meeting of Study Group XV of this study period.

Opening remarks and welcoming address was delivered, on behalf of the inviting organization, by Mr. M. Yamashita (NTT, Japan), Vice-Chairman of Study Group XV. At the meeting assisted the chairman of Study Group XV (Mr. A. M. Nouri, Saudi Arabia).

The list of participants appears at the end of this report.

2. Documentation for the Meeting

The following documents have been considered during the Tokyo meeting.

- 2.1 Reports of the final meeting of Study Group XV
 - COM XV R48 (AP VIII No.103), reproducing the text of Recommendations H.120 and H.130
 - COM XV R49 (AP VIII No.104), reproducing the text of Question 4/XV to be studied during the present period.

2.2 - Delayed Contributions

- D.1/XV (Japan) A draft for parts 3 of Recommendations H.120 and H.130
- D.2/XV (U.S.A.) Description of two of the video codecs used in the United States with primary rate transmission systems
- D.3/XV (Japan) Comments on the sub-rate codec study
- D.4/XV (U.S.A.) Suggestions for further definition of mandate of

the Specialists Group on Coding

- D.5/XV (BNR Canada) Consideration in multi-bit rate coding of video conferencing signals
- D.6/XV (GEC U.K.) Proposed recommendation for a codec for video conferencing systems operating at 1.544 Mbit/s
- D.7/XV (GEC U.K.) Proposed recommendation for a 1.544 Mbit/s digital frame structure for video conferencing
- D.8/XV (U.S.A.)
- D.9/XV (British Telecom U.K.) Some directly related activities in Europe to CCITT SG XV Ad-hoc Specialists Group on picture coding set-up by the videotelephone Working Party - for information only
- D.10/XV (France) Example of general frame structure for visual telephony on basic and primary rate access

2.3 Temporary Documents

- T.D. No.1 (CCITT Secretariat) Documentation for the meeting
- T.D. No.2 (Chairman of Specialists Group) Draft study plan
- T.D. No.3 (Chairman of Specialists Group) Agenda
- T.D. No.4 (Chairman of Specialists Group) Draft agreements on the Part 3 issue
- T.D. No.5 (Chairman of Specialists Group) Guiding principle for sub-rate codec study
- T.D. No.6 (Chairman of Specialists Group) Report of the first meeting in Tokyo
- T.D. No.7 (CCITT Secretariat) Report of the meeting of the Working Party on Visual Telephony (Tokyo, 11-14 December 1984)

3. Setting-up of a Specialists Group on Coding for Visual Telephony

3.1 - The Working Party confirmed that the aspect of coding in the framework of Question 4/XV was better dealt with by a limited group of experts. It was therefore agreed to set-up a Specialists Group on Coding for Visual Telephony. The term of Visual Telephony is understood to be with the meaning specified in Recommendation H.100.

The Working Party endorsed the proposal of Mr. Hofman, to appoint, subject to confirmation at the first meeting of Study Group XV, Mr. S. Okubo (NTT, Japan) as chairman of the Specialists Group on Coding for Visual Telephony. The address of Mr. S. Okubo is as follows:

> Visual Communication Systems Section Yokosuka Electrical Communication Laboratory P.O.Box No.8, Yokosuka Post Office,

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Japan

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3.2 - It was further reinforced the opinion that the Specialists Group, in order to achieve good results, should have a limited participation. It was agreed that in principle at maximum two delegates (core members) should represent a given country. The core members of the Specialist Group are:

- (to be advised at a later date) F.R.Germany - Mr. G. ZEDLER (Deutsche Bundespost) - Mr. J. SPEIDEL (TAKADE, ABt, TLUE) USA - Mr. B.G. HASKELL (AT&T Bell Labs) - Mr. D.I. CRAWFORD (BCR) - Mr. R.A. SCHAPHORST (DIS) Italy - Mr. L. CHIARIGLIONE (CSELT) - Mr. A. D'OTTAVIO (SIP) France - Mr. J.P. TEMIME (CNET) - Mr. J. GUICHARD (CNET) Japan - Mr. N. MUKAWA (NTT) - Mr. Y. HATORI (KDD) Netherlands - Mr. F. BOOMAN United Kingdom - Mr. R.C. NICOL (BT) - Mr. J. PILCHER (C&W) - Mr. P. WEISS (Swedish Telecom) Sweden - Mr. R.V. CAMPENHAUSEN (ELLEMTEL) INTELSAT - (to be advised at a later date)

Available documentation will be circulated to the core members. As it was the case for other specialists group, it was agreed that limited number of associateid members, not belonging to Administrations being core members, could on request receive available documentation.

It was agreed that the Specialist Group will organize themselves in their own meetings, when necessary. The core members could request in some cases to be assisted by experts, if so required.

The specialists group should ensure coordination with the work performed by other Study Groups (e.g. XVIII, CCIRII). Study Group XV will transmit official request of cooperation, when required, to offer Study Groups.

It was finally agreed that the Specialists Group will provide progressive reports at meetings of Study Group XV and/or at meetings of the Working Party that will be charged with the preliminary study of Question 4/XV.

4. Terms of Reference of the Specialists Group

4.1 - The Working Party on Visual Telephony endorsed the terms of reference for the Specialists Group, in agreement with those given to it at the final meeting of Study Group XV. The following items should be considered:

- a) To determine the feasibility of harmonizing or agreeing on one or more standard 1.5 Mbit/s algorithms and coding parameters to complete Part 3 of Recommendations H.120 and H.130.
- b) To determine what rates should be considered for future study of video conferencing coders, taking into account the state of the art of low bit rate video coding, and the transmission bit rates likely to be available in the future ISDN.
- c) To obtain future agreement on a common algorithm(s) and coding parameters for video codecs operating at rates lower than the primary bit rates.
- 4.2 The following targets were agreed by the Specialists Group:

- To complete part 3 of Recommendations H.120 and H.130 by July 1985
- To provide Recommendations on a common algorithm(s) and coding parameters for video codecs operating at rates lower than the primary bit rates by the end of 1987 for approval at the final meeting of Study Group XV.

5. Major Conclusion of the First Meeting of the Specialists Group

a. Part 3 codec

It was agreed to make a report to the next July SG XV meeting according to the guideline of including two codecs for Part 3 and revising Part 2a.

- b. Sub-rate codec
 - There was general agreement on the following points.
- 1) The Group should collaborate as closely as possible in defining a worldwide single standard for "second generation" codecs with direct inter-connectivity between 625/50 and 525/60 television systems.
- 2) The study of the Specialists Group should include both of the following two categories:
 - a. 384 x n kbit/s and
 - b. $64 \times m \text{ kbit/s}$,
- and that special emphasis should be directed at n=1.
- 3) For the category a., the work should be carried out to make recommendations during this study period. For the category b., the timetable will be further discussed.
 - c. Next meeting

The Specialists Group will meet again prior to the Study Group ${\tt XV}$ meeting.

6. Future Work

6.1 - It was agreed that the Specialist Group members will exchange documentation and will arrange and organize meetings in their own, when required and deemed to be appropriate.

The chairman of the Specialists Group will act as convener of the meetings.

6.2 - The chairman of the Working Party on Visual Telephony (Mr. F. J. Hofman, The Netherlands), acting as special interim rapporteur, will report on the studies undertaken in the framework of Question 4/XV at the first meeting of Study Group XV, at present scheduled to take place in Geneva from 1 to 12 July 1985 inclusive.

The present report is submitted to the approval of Study Group XV.

LISTE DES PARTICIPANTS LISTA DE PARTICIPANTES

President (Pays-Bas, PTT)
Chairman : M. F. HOFMAN (Netherlands, PTT).
Presidente (Paises Bajos, PTT)

Allemagne (Republique federale d') - MM. G. ZEDLER Germany (Federal Republic of) -Allemania (Republica Federal de)

Arabie Saoudite - Saudi Arabia - Arabia Saudita

A. M. NOURI (Chairman of Study Group XV)

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BT R. NICOL Cable & Wireless J. PILCHER

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Union internationale des telecommunications

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M. F. BIGI - Secretariat du CCITT - CCITT Secretariat - Secretaria del CCITT