ITU Telecommunication Standardization Sector
Study Group 15
Experts Group for Video Coding and Systems
in ATM and Other Network Environments

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Source: Rapporteur (Sakae OKUBO)
Title : Open Issues towards the Yokosuka Meeting
Purpose: for action

This is a list of items which require contributions before the Yokosuka meeting.

1. H.310 (see AVC-746 for the current text)
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1) Difference between B-ISDN and ATM LAN

We are going to define RAST-P and RAST-L depending on the network environments. Where is the technical difference between public networks and ATM LANs? For example,

- transmission clock characteristics
- signalling
- policing
- charging

This question is also relevant to the possible scenarios for expanding broadband audiovisual communication terminals. Which will be the driving force?

- dedicated terminal
- extension of N-ISDN terminal
- extension of PC/WS
- extension of STU (television receiver)
- ....

What will be the likely network configuration which accommodate the terminals?

2) Relationship between RAST and ROT/SOT

The SG15 Experts Group has given priority to technologies for realizing conversational systems (RAST), and trying to harmonize with distributive or retrieval systems (ROT/SOT). The ATM Forum and DAVIC are taking the other approach. We need a neat solution to make RAST function as ROT as well. Particularly the relationship between H.245 and DSM-CC need be clarified.

- call/session management
- C&I signals

3) Review/update of call setup and logical channel setup procedures in Figure 2 for complete pictures of the communication phases.

Clarify how to use toolkit Recommendations (H.222.0, H.222.1, H.245, Q.2931, etc.). cf AVC-769.

4) Definition of transfer rate capability; quantization of bit rates

nx64 kbit/s is sufficient? Further quantization is required from implementation point of view?

5) Syntax for video frame synchronous C&I signals

6) Start up bitrate(s) <9.1/AVC-743R>

For example, procedures to start with something like 64 kbit/s and then extend it to the final bitrate such as 6 Mbit/s.

7) Relationship between terminal type and its attributes

Review/update Table 2/H.310 which indicates mandatory and optional functions for each terminal type.

2. H.222.0, H.262

1) Check whether the H.222.0 final version incorporated the items in Annex A to AVC-709; apply the defect report if necessary <4.1/AVC-743R>

2) All the defects need be listed and corrected.

3. White contributions (H.222.1, H.245, H.321, H.322)

Known errors should be corrected at the November SG15 meeting.

4. H.222.1

1) Security aspects; encryption, conditional access

2) Review of PCR aware mapping between TS packets and AAL SDU (cf. ATMF resolution at the August meeting)

3) Conflict with default PID values with other applications (DVB, ATV, ...)

Can this be a problem? If so, how should it be solved?

- unique identification and its registration?
- identification by the H.310 manager?

5. H.245

1) Definition of MPEG audio capabilities

See Eskild Nielsen's message dated August 7.

6. Verification tests for H.222.1 and H.245

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1) Bitstream exchange and verification by simulation

2) Hardware verification

- logical channel signalling in particular
- from call setup to teardown for SVC
- cooperation with the LBC group

These tests should be materialized.

7. H.222.2 (RTI)

1) Clarification of the mystery section 3.3

2) MPEG will make it Technical Report (not International Standard) without t_jitter values. Can this be a problem for ITU-T?

8. H.321

1) New H.221 BAS codes for 2B communications using a single VC?

2) Consideration for ATM LAN environments

9. Draft H.323, H.22Z

See Sections 8.2, 8.3 and Annex 11 of AVC-800R.

1) Confirmation of the usage of RTP/RTCP as opposed to either a new protocol or the definition of H.22Z as being above RTP/RTCP.

2) Conclusion on how to make use of RTP/RTCP, and resolution of issues related to the ITU-T's relationship to IETF.

3) Additions to H.245

4) Gatekeeper/Gateway/Terminal Control PDU structure

5) multi-cast operations and their possible impact on H.22Z control PDUs

6) LAN addresssing issues

7) What the default(mandatory) modes of LAN operation are, i.e. centralized vs distributed audio mixing, centralized vs. distributed video switching.

8) Method of H.261 packing (MB, GOB, or full frame). Raises issue of possible conflict with RTP, which is now suggesting MBs.

9) Transmission of T.120 and other data

10. Second phase work items

1) Verification of the H.310 total system

2) Interworking between different H-series terminals accommodated in different networks

3) Multipoint systems

4) VBR communications

5) Questions for the next study period

11. Liaison with other groups

1) Study Group 13 (AVC-803, AVC-804)

- error multiplication due to dummy information insertion when FEC withoug interlaeving is used and a cell loss happens
- corrupted data deleivery option for AAL5

2) Study Group 11 (AVC-806)

- requirements for the common routing of multiple connections or upper bound for the differentinal delay between such connections
- solution to terminal protocol identifictaion (SG15 pointer + SG15 high layer information*)

  * Terminal protocol identification + Multiplexing Capabilities

3) MPEG and Study Group 11 (AVC-805, AVC-807 to be published)

- mechanism to accommodate resource/correlation ID

4) Study Group 8 (AVC-808)

- Protocol stacks for H.245 and T.120-series data

References

[1] AVC-752 Open Issues toward the Stockholm meeting (Rapporteur), March 1995
[2] AVC-800R Report of the Haninge meeting (Rapporteur), May 1995

END