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SOURCE: Stuart Dunstan, Siemens Ltd
TITLE: Comments on Draft Rec. H.245
PURPOSE: Discussion and Proposal

Abstract

This document provides some technical and editorial comments on Draft Recommendation H.245 (7 April 1995). Some proposals for changes are made.

1. Technical

1.1. Connectionless and connection orientated

In clauses 5.2, 6.2, 7.1.2, 7.1.3, 7.2, 7.3, 7.4, and Annex A the terms "connectionless" and "connection orientated" are used.

These terms may not be good terminology for the purposes intended in H.245. These terms are already well defined and understood in packet data systems, as follows;

- connection orientated
 - distinct call phases
 - . connection set-up
 - . data transfer
 - . connection tear down.
 - path is fixed for call duration
 - network resources allocated for call duration
 - e.g. POTS, ATM, N-ISDN, X.25, frame relay
- connectionless
 - no call phases
 - global source and destination address attached to each and every packet
 - different packets belonging to same session may take different physical paths through network, such that packet re ordering at the receiver is required.
 - e.g. IP, LANs, DQDB

This has little to do with what H.245 is addressing i.e uni- or bi-directional communication.

It is proposed that the terms be replaced with terms from one of the two scenarios shown in Table 1, which ever is the intended meaning of the current terminology.

current terminology	replace with one of following	
	case A	case B
connectionless	uni-directional audio visual communication	H.245 return channel not present
connection orientated	bi-directional audio visual communication	H.245 return channel present

Table 1. Change of terminology alternatives

1.2. Arrangement of acknowledgment messages

The question is asked as to whether there might not be a better arrangement for the acknowledgment message. This relates to the `MultimediaSystemControlH.245Messages{ }` messages in clause 5.1, and the `Acknowledgment{ }` messages in clause 5.5. Table 2 illustrates the current arrangement, while Table 3 illustrates an alternative arrangement. The matter is left for consideration.

H.245 message	message type	qualifier
MultimediaSystemControlH.245	message0	
	message1	
	message2	
	acknowledgment	ackMessage0 nackMessage0 ackMessage1 nackMessage1 ackMessage2 nackMessage2 ⋮
	⋮	

Table 2. Current arrangement of acknowledgment messages

H.245 message	message type	qualifier
MultimediaSystemControlH.245	message0	
	ackmessage0	positive negative
	message1	
	ackmessage1	positive negative
	message2	
	ackmessage2	positive negative
	⋮	

Table 3. Alternative arrangement of acknowledgment messages.

1.3. Clause 5.9

The following appears a number of times in clause 5.9;

`logicalChannelNumber` INTEGER (0..8191), -- Limited by 12 bit PID in H.222.0 --

The comment on the right appears to be incorrect; there can be many more logical channels than there are PIDs (or stream_ids in the PS), since there are multiple ATM Virtual Channels, and there is one H.222.0 multiplex per ATM Virtual Channel.

In addition, in view of both ATM and PSTN applications being addressed, H.245 should be generic.

Remove the comment and decide what the maximum number of logical channels should be.

1.4. Clause 6.9

In the third paragraph "logicalvirtualChannelNumber" should be "logicalChannelNumber".

This paragraph requires editing. It is argued elsewhere (see above) that this field can not be the

PID/stream_id field value, since we have multiple ATM virtual channels, and PID/stream_id values need not be unique across ATM virtual channels.

H.245 cannot assign PID/stream_id field values; only H.222.0/1 can do that.

1.5. Clause 6.10

The above also applies to the fourth paragraph in clause 6.10.

2. Editorial comments

2.1. Scope

The term multimedia perhaps should appear in the first paragraph.

In the first paragraph maybe change "... syntax and semantics of terminal information messages ..." to "... syntax and semantics of multimedia terminal system control messages ..."

Is there a better way to express "There is independence of the two directions of transmission"?

In the note it is not clear what "the data stream" is. Also the term "C&I" is not defined anywhere.

2.2. Clause 2

In [13] the correct title for ISO/IEC 13818-2 is "Generic coding of moving pictures and associated audio information".

2.3. Clause 4

In the first paragraph change

"The procedures in this Recommendation are intended to ensure that only those signals are transmitted that can be received and appropriately treated by the remote terminal without ambiguity"

to

"The procedures in this Recommendation are intended to ensure that the only multimedia signals to be transmitted are those that can be received and treated appropriately by a receive terminal".

In the third paragraph change

"There are separate capability messages for ability to receive and transmit: receiveCapSet and transmitCapSet."

to

"There are separate capability messages corresponding to the transmit and receive capabilities of a terminal i.e. transmitCapSet and receiveCapSet."

In the second sentence in the sixth paragraph change

"Messages are defined to allow the transfer of data when T.120 capability is absent, for ..., for ..., and for"

to

"Messages are defined to allow for the transfer of data when T.120 capability is absent, for ..., for ..., and for"

2.4. Clause 6.5

In the clause 6.5 in the paragraphs relating to negative acknowledgments, the expression "... why the terminal failed to acknowledge ..." appears. But the terminal has acknowledged, albeit in the negative.

Replace the expression with "... why the terminal failed to accept ..."

- end -