Document Number: ACV-1039

****

AREA: SG15 WP1 QUESTION 2 CONTRIBUTION

****

TITLE: H.320 on AAL 5

****

SOURCE: Bay Networks, Lucent Technologies

****

CONTACTS: Dale Skran, Lucent Technologies
dls@mtgbcs.lucent.com
+1 908 957 5988

Eric Crawley, Bay Networks
esc@baynetworks.com
+1 508 438 8239

****

DATE: September 23, 1996

****

DISCLAIMER:

This document has been prepared to assist the ITU-T It is offered to the ITU-T as a basis for discussion and is not a binding proposal on Bay Networks or Lucent Technologies. The requirements presented in this document are subject to change in form and numerical value after more study. Bay Networks and Lucent Technologies specifically reserves the right to add to, or amend, the statements contained herein.

****

H.320 on AAL 5

The usage of AAL 5 Network interface cards that do not support AAL 1 has led implementors considering the usage of H.320 systems to propose various schemes for putting H.320 over AAL 5, including:

1. An emulation of AAL 1 using AAL 5. ? Figure 3
2. A native H.320 on AAL 5 stack. ——— Figure 2
3. Usage of H.323 on LANE or IP over ATM using AAL 5.

The emulation of AAL 1 using AAL 5 creates an redundant, inefficient scheme that is not appropriate for widespread usage in the public network.

A native H.320 on AAL 5 stack leads to a need for H.321 to H.320/AAL 5 gateways, which will be difficult to manage since they do not fit at any natural protocol boundary. In addition, such work duplicates that of H.310 and H.321 while adding little. The gateway required would be much more complex than an AAL 1/AAL 1 equivalent service gateway.

H.323 over LANE/IP over ATM using AAL 5 seems the preferred solution. A gateway is needed, but it has already been supplied by H.323, and it fits naturally on the LANE edge. H.323 will be widely used on ATM endpoints using LAN/IP over ATM, and no additional ITU-T work is needed to adopt this solution, except for some clarification in H.24i(gateways).

Suggested liaison to the ATM Forum:

In the event that that ATM Forum decides to endorse an AAL 1 equivalent service using AAL 5, this scheme should only be adopted for usage between the AAL 5 only NIC and the ATM switch the NIC is immediately attached to. Signaling should be adopted to allow the ATM switch to recognize the AAL 1 equivalent service, and convert it to an AAL 1 using a gateway device. AAL 1 should be described as the preferred implementation for putting H.320 on native ATM.

Note that unlike the case of H.310 AAL1 to AAL 5 gateways, no protocol knowledge is needed to gateway H.320 on AAL 1 to H.320 AAL 1 equivalent service.

However, it is our position that the usage of H.323 over LANE/IP over ATM is preferred over an AAL 1 equivalent service using AAL 5.

ATMF LANE over ATM
IETF IP over ATM