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| Project | **IEEE 802.21c**  **<https://mentor.ieee.org/802.21>** |
| Title | **Proposed remedy for the Proxy for Information Services** |
| DCN |  |
| Date Submitted | **July 17, 2013** |
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| Re: |  |
| Abstract | This contribution is suggested resolution to LB6b comment #78, 79, 80, 32 |
| Purpose | Proposes changes in the current draft |
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* + 1. Preregistration using proxy PoA

To prepare for handover, the MN needs to communicate with the target network PoA (TPoA) by performing network access procedure with the target access network. The first part of this communication is the transport of TCP or UDP / IP packets to the proxy PoA (Figures 11c and 11d). The second part of this communication depends on whether the TPoA is SRHO-capable (Figure 11c) or whether it is a legacy PoA lacking such capability (Figure 11d). If the target PoA is SRHO-capable, the L2 frame is encapsulated into an MIH frame to be forwarded to the target radio.

Figure 11c shows the transport of the target radio link-layer control frame as a payload of a MIH frame between the MN and the proxy PoA via the originating radio interface in the absence of the target link. In this figure the MN has 2 interfaces (1) and (2). It uses the wireless interface (1) with PHY(1) and L2(1) in its protocol stack to communicate with the corresponding protocol stack PHY(1) and L2(1) at the OPoA (not shown). The OPoA may use IP over a non-wireless link, (e.g., Ethernet) to communicate with other network nodes in the Internet.

If the target radio were used, the MN would have used the target radio with protocol stack PHY(2) and L2(2) to communicate with the TPoA which also possesses the corresponding protocol stack PHY(2) and L2(2). Without using the target radio to communicate, the target radio link-layer control frame L2(2) is encapsulated into an MIH frame. The logical connection between the MIH of the MN and the MIH of the TPoS / proxy PoA is enabled by the logical connection of the TCP or UDP over IP between them and is according to RP1.

Similarly, the logical connection between the MIH of the TPoS / proxy PoA and the SRHO-capable TPoA uses the logical connection of the TCT or UDP over IP between them and is according to RP5. When the MIH frame arrives at the SRHO-capable TPoA, it is decapsulated to retrieve the target L2(2) frame there.



Figure 11c: Transport of L2 frame of target interface via MIH using the logical connection at the Target PoS to the SRHO-capable TPoA.

Figure 11d also shows the transport of the target radio L2 control frame as a payload of a MIH frame between the MN and the proxy PoA via the originating radio in the absence the target link. However, the TPoA is not SRHO-capable so that the MIH user at the proxy PoA has to communicate with the TPoA using other control applications in order to proxy between the MN and the TPoA. This later communication is out of scope of this specification.



Figure 11d. Transport of L2 frame via the proxy PoA to a legacy TPoA which is not SRHO-capable.