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Chairman of ETSI Project Broadband Radio Access Networks
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TO: 3GPP SA
CC: 3GPP CN

Date: 14th September 2001.

Dear Sirs/Madams,

ETSI Project BRAN wishes to elaborate further on the matters brought to your knowledge in the liaison of 27th June 2001 (BRAN24d114/SP-010403).

Regarding the issue of establishing an interworking solution between HiperLAN2 and UMTS, ETSI BRAN has identified two fundamentally different types of possible solutions whose differences lie within the level of integration. The most essential requirements identified were authentication, mobility between UMTS and HiperLAN2, service continuity, and preservation of the applied security level in UMTS. Further information regarding these solutions and their requirements can be found in TR 101 957 Ver. 1.1.1.

It has been decided during the June 2001 meeting that only one of the two solutions will be considered. This solution, "loose coupling", is generally defined as the utilisation of HiperLAN2 as a packet based access network complementary to current UMTS networks, utilising the UMTS subscriber databases but without any user plane Iu type interface, i.e. avoiding any impact on the SGSN and GGSN nodes, see Figure 1. Security, mobility and QoS issues are addressed using IETF schemes.

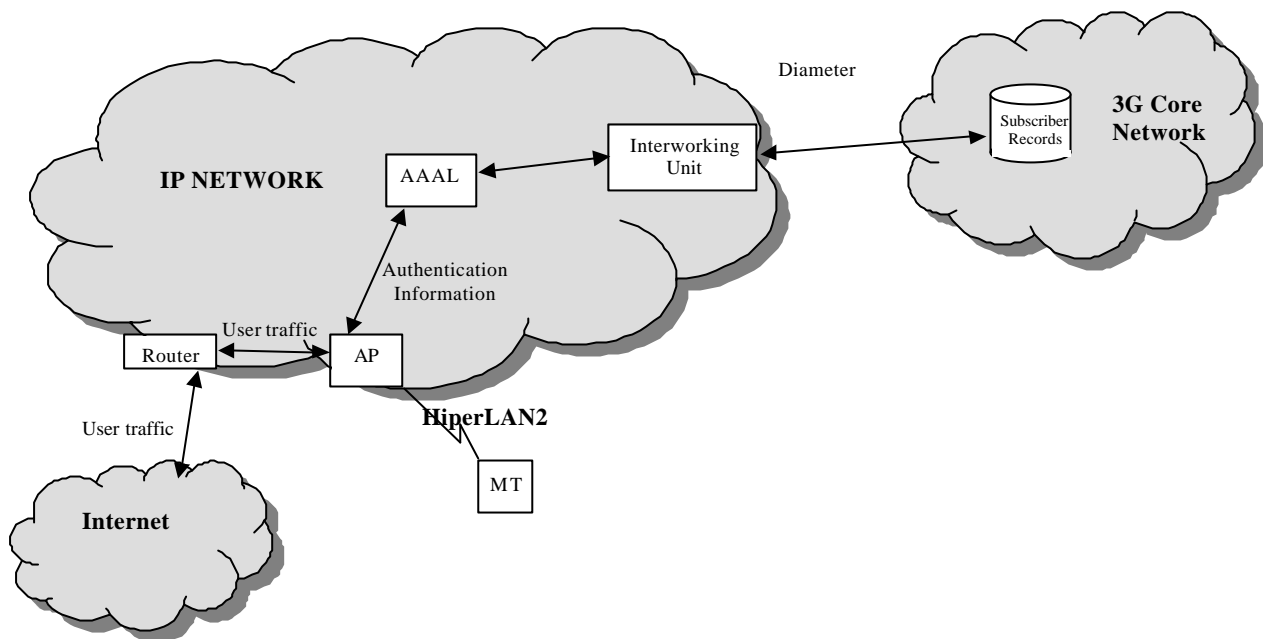


Figure 1 Basic Interworking Architecture

To illustrate what impact the interworking between HiperLAN2 and UMTS might have on 3GPP, a system architecture that may support R5 is given in Appendix A. This appendix briefly discusses the interworking in a manner that meets the requirements outlined above. It should be pointed out that this is not the final architecture from the ETSI BRAN group. The group is additionally working on other HiperLAN2 - UMTS interworking solutions.

Project Timeline of HieprLAN2 – UMTS Interworking

ETSI BRAN has decided to release two stages, termed R1 and R2, of the interworking solution. The initial release R1 is planned to be approved at the BRAN #26 meeting in early December. R1 shall contain the limited functionalities of authentication with its associated security mechanisms providing integrity and confidentiality. Additional functionality identified as mobility support and service integration will be features of the second release. R2 is planned to be up for approval at the BRAN #28 meeting in mid of April 2002.

Conclusion

ETSI BRAN hopes that this liaison will help to introduce the concept of HiperLAN2 – UMTS interworking and highlight the level of work that needs to be done. ETSI Project BRAN wishes to start a joint process of achieving this interworking goal and therefore wishes guidance from 3GPP for the continuing process. ETSI BRAN will be more than willing to clarify any questions about this activity.

Sincerely

Jamshid Khun-Jush

Appendix A

HiperLAN2 UMTS R5 with HSS Interworking Architecture

This architecture for HiperLAN2 and UMTS interworking is based on the loose coupling solution, specifically for R5 incorporating a HSS entity. This architecture reduces the need for standardisation and its impact on the UMTS networks. The architectural solution with its IETF defined interface towards the UMTS networks has the advantage of being generically suitable for all WLAN technologies.

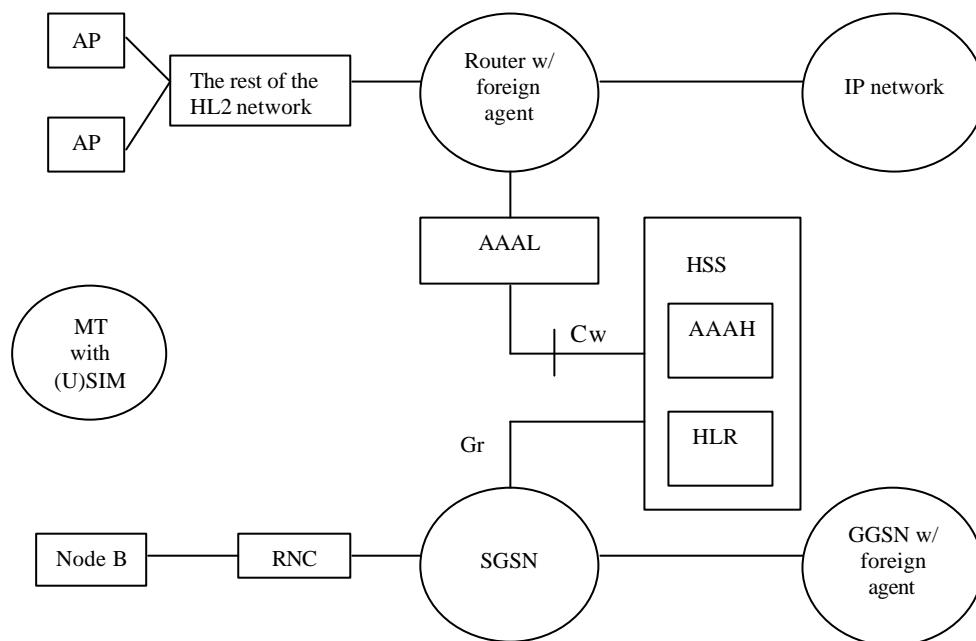


Figure 2. UMTS R5 HSS Interworking System Architecture

The HiperLAN2 network in Figure 2 above is made up of the Access Points termed AP and a “black box” termed “The rest of the HiperLAN2 network”. The access points provide the air interface of HiperLAN2 whilst the black box may maintain the mobility aspects between the APs. The HiperLAN2 network is connected to IP networks through an IP router. IETF protocols are used to integrate the HiperLAN2 network with UMTS. The Cw interface identifies the interface between the WLAN Interworking architecture and UMTS.

Authentication is performed utilising the IETF’s AAA protocols. The Home AAA server (AAAH) is a part of the HSS and the Local AAA server (AAAL) is part of the WLAN interworking architecture. One of the functions of HSS is to link together the different identities of users, thus enabling the network to treat that user as one and the same with respect to billing, service network functionality etc.