

TSG-RAN Working Group 3 meeting #1
Bonn 2nd - 5th February 1999

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1. Introduction

One of the agenda items to be discussed at the first meeting of the RAN Architecture working group is Work Items for the work areas to be covered by the Radio Access Network TSG. This contribution proposes work items for Release 99 UMTS related to these work areas.

2. Discussion

ETSI TR 23.20 specifies Evolution of the GSM platform towards UMTS. The following working assumptions in chapter 9.5 of ETSI TR 23.20 should be noted:

- A multi-vendor interface shall be defined at the I_U reference point (I_U interface). The interface embodies a protocol suite allowing different protocol stacks towards the PSTN/ISDN domain and the IP domain.
- Over the I_U interface, user information to one UE is carried in one or several logical user flows, controlled by a signaling protocol (RANAP). Additionally some control elements (potentially relevant for only one domain) may be carried inband in the user flows.
- A common syntax for RANAP messages for both the IP and the PSTN/ISDN domain is the target as long as the functionality of either domain is not compromised.
- A guideline for defining the control procedures over the I_U reference point is to reuse, to the extent possible, control procedures defined in BSSMAP and BSSGP/GTP. The use of BSSMAP and BSSGP/GTP as the base when defining the control procedures over I_U does not preclude new control procedures to be introduced over I_U reference point.
- For each domain the protocol stack used by RANAP may be based on one of SS7, TCP/IP or a combination (e.g. SCCP on TCP/IP or UDP/IP). The protocol stack used by RANAP may be different for the PSTN/ISDN domain and the IP domain.
- The protocol stack used by the user data transport over I_U may be different from the protocol stack used by RANAP. Furthermore the user plane protocol stack may be different for the two domains.

The underlying assumption is that for the realization of Release 99, separate Control and User planes will be needed for the PSTN/ISDN domain and IP domain.

3. Proposal

Based on the discussion in chapter 2, this contribution proposes the following Work Item for the TSG RAN group:

- Implementation of distinctly separate Control and User planes, at the I_U reference point, for the PSTN/ISDN domain and IP domain.

Furthermore, it is proposed that this Work Item be delegated to the TSG-R WG3, Radio Access Network Architecture working group.