

**Agenda Item: 8.4**

**Source : NORTEL**

**Title : Iur interface Protocol Structure : splitting of Radio Network functionality and Transport Network functionality**

**Document for: UMTS ZZ.12 v 0.1.0 section 8**

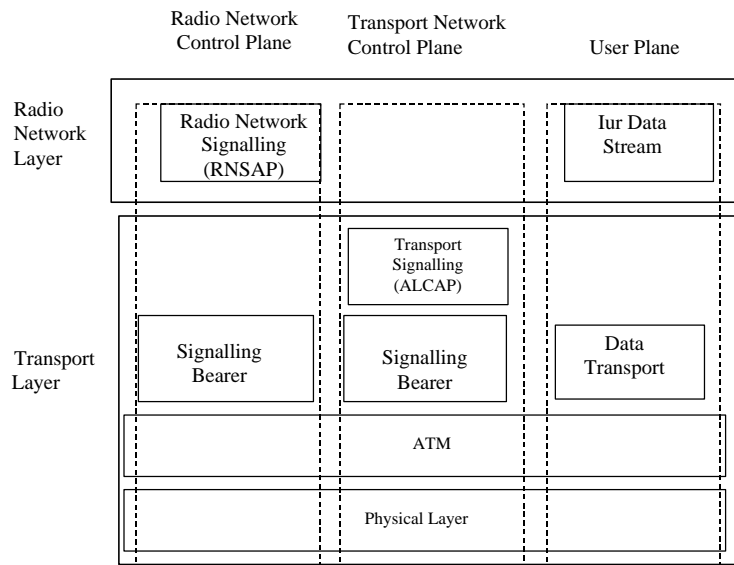
**ABSTRACT**

This contribution is relative to section 8 of ZZ.12 : Iur Interface Protocol Structure. A new model, which is aligned with proposed model of the Iub interface protocol, is proposed to represent the Iur Interface Protocol.

**BACKGROUND**

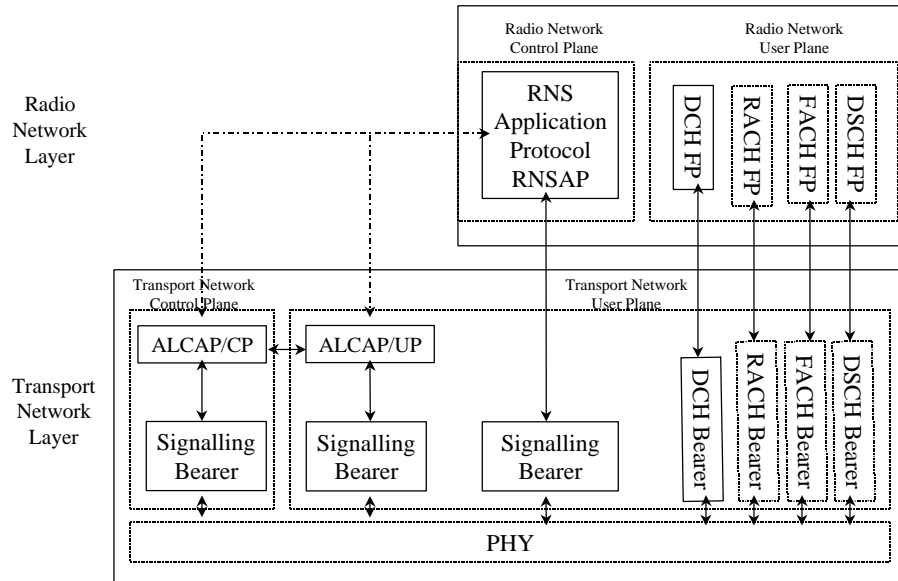
In “ZZ.12, section 6.3 : Iur Interface Specification Objectives”, separation of Radio Network functionality and Transport Network functionality is stated as a principle in order to facilitate the introduction of future technology”.

In section 8, the Interface Protocol Structure model mixes Radio Network and Transport Network functions. It also refers to the specific ATM implementation of the Transport Network, which is the working assumption, but excludes the introduction of other technology :



**Figure 1: Iur Interface Protocol Structure.**

**PROPOSED PROTOCOL STRUCTURE**



**Figure 1: Iur Interface Protocol Structure.**

**DISCUSSION**

The proposed Iur Interface Protocol Structure clarifies the functional split between the Network User Plane and Network Control Plane.

The Transport Network Control Plane is splitted in Control Plane and User Plane. The Control Plane is used to establish physical connections in the Transport Network between two RNC. The User Plane carries user information eg RNSAP signalling, DCH, RACH, FACH, DSCH data stream.

The ALCAP protocol is spread over the Transport Network Control Plane and the Transport Network User Plane. ALCAP/CP is the part of the ALCAP protocol used to establish a physical resource in the network. ALCAP/CP is part of the Transport Network Control Plane. ALCAP/UP is the ALCAP part of the protocol used to negotiate the end to end service between two RNC and to establish logical channels over the physical channels. ALCAP/UP should not be known from the Transport Network and is therefore included in the Transport Network User Plane.

RNSAP uses the ALCAP/CP protocol to obtain the required transmission media (ex VP/VC) for the signalling or Data Stream Bearer and negotiate the end to end service and multiplexing between two RNC (ex AAL type, AAL2 ID) with ALCAP/UP.

The Protocol Structure Mapping on existing Transport Network as ATM, IP, GSM PCM is similar to the mapping proposed for Iub protocol structure.

**PROPOSAL**

This contribution has introduced a new model of Iur Interface Protocol aligned with the model proposed for Iub protocol structure. There is a better split between Radio Network and Transport Network functions. The

Transport Network plane was splitted into Control and User Plane. The ALCAP protocol of the Transport Network was splitted into ALCAP/CP and ALCAP/UP parts.

**Proposition 1** : it is suggested to replace the existing figure 1 of section 8 by the figure 1 of this contribution

#### **REFERENCES**

[1] ZZ.12, Description of Iur Interface