Agenda Item: 7.1

Source: Nokia

Title: **Identifiers for dedicated resources within UTRAN**

Document for:

_____

1   Introduction

In RAN WG3 the usage of different identifiers to identify different instances over reference points are not well defined. Before starting to define the message contents, including identifiers, some basic principles for identifier usage in different protocol planes should be defined. This contribution proposes some basic principles for the usage of the key identifiers within UTRAN.

2   Identifiers for dedicated resources within UTRAN

Radio Network Control Plane identifiers

Each addressable object in each reference point has an application part level identifier. This identifier is allocated autonomously by the entity responsible for initiation of the setup of the object. This application part identifier will be used as a reference to the object that is setup. Both ends of the reference point shall memorise the AP Identifier during the lifetime of the object. Application part identifier can be related to a specific ALCAP identifier and that relationship shall also be memorised by both ends.

Table below lists the basic AP level identifiers in each reference point.

Object	Identifier	Abbreviation	Valid for
Radio Access Bearer	Radio Access Bearer ID	RAB-ID	Iu
Dedicated Transport channel	DCH-ID	DCH-ID	Iur, Iub

Transport Network Control Plane identifiers

ALCAP identifier is used only in Transport Network Control plane (ALCAP protocol, if exist) and may be used in User Plane in the actual data transmission using the transport link. ALCAP identifier identifies the transport link according to the naming conventions defined for the transport link type in question. Both ends of the reference point of the ALCAP shall memorise the ALCAP identifier during the lifetime of the transport link. Each ALCAP identifier can be related to an Application Part identifier.

Following table indicates examples of the identifiers used for different transmission link types.

Transmission link type	ALCAP Identifier
AAL2	Signalling Association ID (SAID)
GTP over IP	IP address + GTP identifier (ffs.)

Binding identifier

Binding Identifier is used to initialise the linkage between ALCAP and Application Part (RANAP, RNSAP, NBAP) identifiers. Binding identifier can be used both in Radio Network Control plane Application Part protocols and in Transport Network Control Plane's ALCAP protocol.

Binding ID binds the Radio and Transport Network Control plane identifiers together. To ensure maximal independence of those two planes, the binding ID should be used only when necessary: Binding ID shall thus be used only in Radio Network Control plane Application Part messages in which a new association between the planes is created and in ALCAP messages creating new transmission links.

Binding ID for each transmission link shall be allocated before the setup of that transmission link and it shall be kept as reserved during the lifetime of that transmission link. Reserved Binding IDs and the associated transport link shall be memorised by both peers of each reference point.

Following table indicates the binding identifier allocating entity in each interface.

Reference point	Allocating entity	Application part message including Binding-ID
Iu	CN	Request from CN
Iur	DRNC	Response to the request from SRNC
Iub	Node-B	Response to the request from DRNC

3   Proposal

It is proposed that these guidelines are followed in each interface, when message contents and messages are designed. Also it is proposed that the text in chapter 2 of this contribution is added to the RAN overall Description, S3.01.

A proposal is that the chapter 2 in this contribution is specifically included into S3.01 as a new subchapter 6.x named "UTRAN identifiers". (Chapter 6 is named "UTRAN Architecture") The already agreed RNTI definition should also be moved to the same subchapter, as follows;

6.x UTRAN identifiers
6.x.1 UE identifiers
[RNTI definition text]
6.x.2 Identifiers for dedicated resources
[Text from chapter 2 in this contribution]