Source: TSG-RAN WG3

To: TSG-RAN WG2

Date: 19th March 1999

Subject: Liaison from WG3 regarding the length requirements for s-RNTI, c-RNTI and RNC-ID

_____

TSG-RAN WG3 would like to thank TSG-RAN WG2 for the answer to the liaison statement regarding RNTI definitions. By this liaison statement RAN WG3 acknowledges the added open points and corrections and gives some estimates for the further questions related to s-RNTI, c-RNTI and RNC-ID lengths received from WG2.

RNC-ID is used to differentiate the individual RNCs within UTRAN. So the RNC-ID length should be sufficient to be able address all the RNCs within UTRAN.

s-RNTI is used within SRNC to differentiate users that are controlled by that Serving RNC. The length should be sufficient to support the maximum amount of RRC connections controlled by one SRNC (including all RRC connections independently of the state of that RRC connection.)

c-RNTI is used to differentiate users that are utilising resources from a specific controlling RNC. The length should be sufficient to support the maximum amount of UEs using resources within one CRNC. Note that UEs utilising resources only in SRNS are also allocated a C-RNTI from the SRNS.

Recognising that the length of these identifiers affects to the radio protocol efficiency WG3 has made some estimation for the requirements for these identifiers. These figures shall be seen only as a first estimates for the required length.

RNC-ID shall be able to differentiate around 4000 RNCs -> 12 bits required.

s-RNTI as well as c-RNTI shall be able to differentiate around 10 000 000 UEs -> 24 bits required.

It is emphasised that it is very difficult to make any future proof assumptions regarding the requirements for the length of these identifiers and therefore all additional space and expansion possibilities that can be provided by the air interface protocols are welcomed.