

**Source:** TSG-RAN WG3  
**To:** TSG-CN WG1  
**Cc:** TSG-RAN WG2  
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**Subject:** LS on Inclusion of NAS information in Cipher Mode Command

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In GSM 08.08 an optional parameter 'Cipher Response Mode' may be included in BSSMAP Cipher Mode Command message from MSC to BSC. This information element is to be passed by BSS to the MS and the information element affects whether IMEI is to be included to Ciphering Mode Complete message to be sent back by the MS and which is further sent by BSC to MSC.

In UMTS, where UTRAN may be connected to 2 core network domains some principles for handling the ciphering are assumed in 3GPP SA WG2 documentation (See UMTS 23.20). According to these principles the reception of Cipher Mode Command in SRNC from one CN domain does not always imply that corresponding access stratum message is sent to UE by the SRNC. This is the case when requested type of ciphering is already initiated by the other CN node.

This method of operation means that the possible embedded Non Access Stratum (NAS) information in RANAP 'Cipher Mode Command' message will not always reach the UE unless some special measures to carry the information to UE are introduced into UTRAN. Further this means that this embedded information can not always have any influence to the possible embedded NAS information in the RANAP Cipher Mode Response to be sent from RNC to CN. In fact it is not always possible to have any embedded NAS information from UE included in Cipher Mode Complete RANAP message unless again some special procedures are introduced in UTRAN.

To maintain the logical separation between Access Stratum (AS) and Non Access Stratum (NAS) it is generally preferred by RAN WG3 that no unnecessary mix ups of procedures belonging to these two strata are introduced.

Taking into account the above mentioned characteristics of handling the ciphering in UTRAN, RAN WG3 would like to know whether CN WG1 sees that it is desirable to be able to piggyback NAS information into Access Stratum RANAP procedure 'Cipher Mode Command'?

Further, if some NAS information is still desired to be piggybacked in this AS procedure, has CN WG1 some guidelines how UTRAN shall handle that NAS information in cases when this lu access stratum ciphering procedure will not trigger air interface access stratum ciphering procedure between UTRAN and UE?