Agenda Item: **9.3.2**

Source: **Telecom Modus**

Title: **Clarification to Cell Update Procedure**

Document for: **Decision**

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1   Introduction

Currently, the logical channel used to perform Cell Updates is either DCCH or CCCH. This document proposes the use of DCCH for performing Cell Update Procedures.

2   Discussion

Under the assumptions in [1], the following points can be assumed:

1) In RACH/FACH or RACH/DSCH substates, UE MAC PDUs can be routed using C-RNTI when communicating with any cell within the CRNC. When performing cell update procedure, C-RNTI can be used, provided that the target cell is within the same RNS as the current cell.
2) After moving from PCH state to RACH/FACH state to perform the cell update procedure, C-RNTI can still be used, provided that the target cell is within the same RNS as the current cell.
3) In RACH/FACH, RACH/DSCH or PCH state, if the target cell is within a different RNS from the current cell, C-RNTI cannot be used as the UE would require a new C-RNTI.

However, if the Cell Update Request message is sent via the current cell, C-RNTI can be used.

An advantage of this is that the protocol stack and resources always exist for the current cell. The U-plane and C-plane can remain with the old resources until the switch to the new cell, thus avoiding loss of data. During the procedure, the MAC-C to MAC-D association is set up.

Another advantage is that, if RLC has ciphering functionality, cell update messages can be ciphered and U-plane can remain ciphered.

This mechanism avoids the problem of how the routing is done when target cell is on a CRNC not co-located with the SRNC.

3   Proposal

The proposal is that the UE can perform Cell Update on DCCH to the current cell.

4   References

[1] Tdoc RAN WG2 067/99 – Definition and usage of RNTI, LS from TSG-RAN WG3