

Agenda Item : 7.10

Source : NTT DoCoMo

Title : Additional RRC Procedure (Cell Connected to URA Connected)

Document for : Decision

1. Abstract

When the mode of the UE transits from URA Connected mode to Cell Connected mode, (URA) Paging procedure is executed but the reverse transition is not specified yet. This contribution proposes to add RRC Procedure by which the UE transit from Cell Connected mode to URA Connected mode.

2. Methods to control

The requirements for this procedure are as follows;

(1) To save the battery of UE.

(2) To reduce the traffic of cell update.((URA) Paging traffic will increase)

When the state of UE transit from Cell Connected mode to URA Connected mode, there are several ways to control.

-Method 1

UE and RNC start timer from the timing that UL/DL data stops and when the timer expires, UE and RNC locally transit to URA Connected mode.

-Method 2

UE start timer from the timing that UL/DL data stops and when the timer expires, UE reports to RNC and UE transits to URA Connected mode.

-Method 3

UE start timer from the timing that UL/DL data stops and when the timer expires, UE requests to RNC that UE wants to transit to URA Connected mode. By receiving the request from UE, RNC commands to UE to transit to URA Connected mode.

-Method 4

RNC start timer from the timing that UL/DL data stops and when the timer expires, RNC commands to UE to transit to URA Connected mode.

1. Comparison

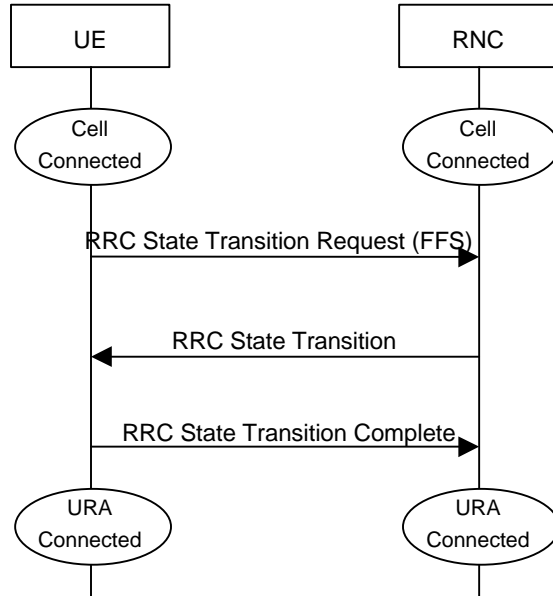
Method 1 has a danger of inconsistency between UE state and RNC state. In method 2, there will be a case that RNC wants to reject by NW reasons. Decision to make the UE state transition should be made by RNC. Therefore method 3 and 4 should be adopted. Both methods seem preferable but it should be clarified whether the trigger from UE is needed or not.

2. Proposal

It is proposed to add a new procedure “RRC State Transition” (tentative naming) in 3GPP WG2 document S2.31 “RRC Protocol Specification”.

RRC STATE TRANSITION

This procedure is used when the RNC decides that UE should transit from Cell Connected Mode to URA Connected Mode. The necessity of the trigger from the UE is FFS.



3. Reference

[1] S2.31 “RRC Protocol Specification” Ver 0.0.1