

Agenda Item: 6.11
Source: CWTS/CATT
To: TSG RAN
Title: Proposed WI description for 'Node B Synchronisation for 1.28 Mcps TDD'
Document for: Approval

Work Item Description

Title

NodeB Synchronisation for UTRA 1.28 Mcps TDD

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

none

3 Justification

NodeB synchronisation is beneficial in UTRA TDD to minimise cross-interference in neighbouring cells. Currently, for the 1.28 Mcps TDD option no method has been specified how NodeB synchronisation can be achieved with UTRAN's and UE's internal means such as signalling via the air interface.

The following benefits of the introduction of NodeB synchronisation by internal means are seen:

- A substantial reduction of the cost of the transmission network.
- An autonomous synchronisation procedure without the need of external references.
- An easily extendable method for the purpose of inter-system NodeB synchronisation.

4 Objective

The purpose of this new work item is to enable the synchronisation of NodeBs in UTRA TDD for the 1.28 Mcps option by UTRAN's and UE's internal means such as air interface signals and NodeB cross measurements. NodeB synchronisation involves

- radio frame and multi frame synchronisation and
- intra-system and inter-system synchronisation.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects :	USIM	ME	AN	CN	Others
Yes		X	X		
No	X			X	
Don't know					

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.xxx	NodeB synchronisation for 1.28 Mcps TDD	WG1		RAN # 13	RAN # 14	TR to be created
Affected existing specifications						
Spec No.	CR	Subject	Approved at plenary#		Comments	
25.123		Requirements for Support of Radio Resource Management (TDD)	RAN # 14			
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN # 14			
25.223		Spreading and modulation (TDD)	RAN # 14			
25.224		Physical Layer Procedures (TDD)	RAN # 14			
25.225		Physical layer – Measurements (TDD)	RAN # 14			
25.302		Services provided by the physical layer	RAN # 14			
25.331		RRC Protocol Specification	RAN # 14			
25.402		Synchronisation in UTRAN Stage 2	RAN # 14			
25.433		UTRAN Iub Interface NBAP Signalling	RAN # 14			
25.423		UTRAN Iur Interface RNSAP Signalling	RAN # 14			

11 Work item rapporteurs

Ms. Jinling HU (CWTS/CATT)

12 Work item leadership

TSG-RAN WG1

13 Supporting Companies

CATT, China Mobile, Huawei, Motorola, Nortel Networks, Samsung, Siemens

14 Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

Radio Interface Improvements and RAN Improvements Features

14c The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)