

Source: Intel

Title: Proposed WI: "Mitigating the Effect of CPICH Interference at the UE"

Document for: Approval

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This Work Item proposal was endorsed last month by RAN Work Group 4 (Meeting #20, New Jersey, USA).

### Work Item Description

Title:

Mitigating the Effect of CPICH Interference at the UE

**1 3GPP Work Area**

X	Radio Access
	Core Network
	Services

**2 Linked work items**

*None*

**3 Justification**

Because the CPICH is typically allocated a significant portion of the total Node-B transmit power, the interference impact of the CPICH is particularly strong. On the other hand, the information content and structure of the CPICH channels are completely known a priori at the receiver, which can considerably simplify efforts to mitigate the CPICH interference effect. The current 3GPP Study Item on this topic has illustrated that mitigating the effect of CPICH interference at the UE can provide significant improvement in radio network capacity, at a relatively small price in additional complexity.

**4 Objective**

The objective of this Work Item is to establish improved UE performance requirements achieved through mitigating the effect of CPICH interference.

**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			
No	X		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 information at plenary#	Approved at plenary#	Comments
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.101		UE Radio transmission and reception (FDD)		RAN #15		
34.121		Terminal Conformance Specification, Radio Transmission and Reception		T #15		

**11 Work item raporteurs**

Shimon Moshavi, Intel (Shimon.Moshavi@intel.com)

**12 Work item leadership**

TSG-RAN WG4

**13 Supporting Companies**

Cingular, T-Mobil, Motorola, AWS, Intel, One2One Personal Communications, Telia

**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 Improvements of Radio Interface

14c The WI is a Work Task: parent Building Block (one Work Item identified as a building block)