

**Agenda Item : 8.8**

**Source : Ericsson, Motorola, Nokia, AT&T Wireless Services**

**Study Item Description**

**Title**

Uplink Enhancements for Dedicated Transport Channels

**1 3GPP Work Area**

X	Radio Access
	Core Network
	Services

**2 Linked study items**

*None*

**3 Justification**

As the use of IP based services becomes more important there is an increasing requirement to improve the coverage and throughput as well as reduce the delay of the uplink. Applications that could benefit from an enhanced uplink may include services like video-clips, multimedia, e-mail, telematics, gaming, video-streaming etc. This study item proposes to investigate enhancements that can be applied to UTRA in order to improve the performance on uplink dedicated transport channels.

**4 Objective**

It is proposed that the study should include, but not be restricted to, the following topics related to enhanced uplink for UTRA FDD to enhance uplink performance in general or to enhance the uplink performance for background, interactive and streaming based traffic:

- Adaptive modulation and coding schemes
- Hybrid ARQ protocols
- Node B controlled scheduling
- Physical layer or higher layer signalling mechanisms to support the enhancements
- Fast DCH setup
- Shorter frame size and improved QoS

**5 Service Aspects**

*None– better support of existing services*

**6 MMI-Aspects**

*None*

**7 Charging Aspects**

*None– uses existing charging schemes*

**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 information at plenary#	Approved at plenary#	Comments
TR	Enhanced Uplink for UTRA FDD	R1	R2, R3, R4	RAN #19	RAN#20	New study item
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

The technical report should present the results of the study and make a recommendation for which techniques should be incorporated into current and future releases of the standard. The report should also detail the work items descriptions necessary to continue this work.

**11 Study item rapporteur**

**Karri Ranta-aho, Nokia**

**12 Study item leadership**

RAN WG1

**13 Supporting Companies**

Motorola, Ericsson, Nokia, AT&T Wireless Services

**14 Classification of the SI (if known)**

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

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

(list of Study Items identified as building blocks)

14b The SI is a Building Block: parent Feature

(one Study Item identified as a feature)

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

(one Study Item identified as a building block)