

**Agenda Item** :  
**Source** : **NTT DoCoMo**  
**Title** : **RRC Message Parameters  
 (For System Information)**  
**Document for** : **Decision**

**1. Abstract**

This contribution shows the parameters for RRC protocol. This contribution is focused on System Information.

**2. Categorization of RRC parameters**

RRC parameters are classified into 4 categories; RAB parameters, Transport CH parameters, Physical CH parameters and UE parameters. Each parameters are used as follows.

Parameter Category	Usage
RAB parameters	-Not used.
Transport CH parameters	-Not used.
Physical CH parameters	-Used to inform configuration of each transport CH configuration. -Used to inform neighbor cell information. -Used to inform cell selection information.  -Used to inform power control information.
UE parameters(AS)	-Used to inform AS mobility information to UE. -Used to inform measurement thresholds.
UE parameters(NAS)	-Used to inform NAS mobility information to UE.

**Table 1 Usage of parameters**

**System Information** can be the combination of 2 types of parameters; Physical CH parameters and UE parameters.

	RAB parameters	Transport CH parameters	Physical CH parameters	UE parameters (AS&NAS)
System Information			M	M

**Table 2 Combination of types of parameters**

### 3. UE Parameters (NAS)

UE parameters (NAS) are listed in Table 3.

- (1) These parameters are the example of NAS info. and they are recognised as NAS info in UE.
- (2) Other parameters should be clarified and added.

Parameter Name			System Information
NAS mobility info.	PLMN ID		M
	LAI		
	RAI		
	Periodical Update Info. (for LA/RA Update)	FFS	
	Attach/Detach Info.	FFS	
	Others	FFS	?

**Table 3 UE Parameters (NAS)**

### 4. UE Parameters (AS)

UE parameters (AS) are listed in Table 4.

- (1) Other parameters should be clarified and added.
- (2) Parameters, which will change due to traffic fluctuation such as "UL interference level", "Restriction information" and "Admission control info", are mapped on BCCH-V, which is broadcasted in short interval (e.g. every 2 frames) for fast access for UE.

Parameter Name			System Information
AS mobility info.	URA ID#j		M
	:		
	URA ID#k		
	Periodical Update Info.(for Cell/URA Update)	FFS	
	Others	FFS	?
Cell Selection Info.	Standby allowed reception level (dBm)		M
	Standby prohibited reception level (dBm)		
	Threshold for Cell Re-selection (dB)		
	Allowed reception SIR (dB)		
Measurement Control Info.	Max No. of reporting candidate cells for RRC Connection Request		M
	Initial Setting of Measurement Control Info	(e.g. MEHO/NEHO)	FFS

**Table 4 UE Parameters (AS)**

## 5. Physical CH Parameters

Physical CH parameters are listed in Table 5.

- (1) Several "Modes / Chip Rates / Radio Frequencies / Duplex Distances" can be supported in a cell.
- (2) RACH/FACH/DSCH/PCH info and Neighbor cell Info should be mapped on BCCH for each "Mode / Chip Rate / Radio Frequency / Duplex Distance".
- (3) Cell informations of serving cell (e.g. BCH DL Scrambling Code#, BCH DL Transmission Power, and others) are included in neighbour cell information.

Parameter Name			System Information
Neighbour Cell List Info.	Cell List Reference ID		M
	Intra/Inter system	Value: UMTS	M
	Mode	Value: FDD	M
	Chip Rate		M
	Radio Frequency		M
	Duplex Distance		M
Common CH Info.(RACH)	RACH#0	Available Access Slots	M
		UL Scrambling Code#	
		Channelization Code for I-branch	
		Signature#0 - #g	
		Preamble spreading codes#0 - #h	
	:	:	
	RACH#a	Available Access Slots	
		UL Scrambling Code#	
		Channelization Code for I-branch	
		Signature#0 - #i	
Preamble spreading codes#0 - #j			
Common CH Info.(FACH)	FACH#0	DL Scrambling Code#	M
		Channelization Code#	
	:	:	
FACH#b	DL Scrambling Code#		
	Channelization Code#		
Common CH Info.(DSCH) (FFS)	DSCH#0	DL Scrambling Code#	FFS
		Channelization Code#	
	:	:	
DSCH#c	DL Scrambling Code#		
	Channelization Code#		
Common CH Info. (FAUSCH) (FFS)	FAUSCH #0	DL Scrambling Code#	FFS
		Channelization Code#	
	:	:	
FAUSCH #d	DL Scrambling Code#		
	Channelization Code#		
PCH Info.	PCH#0	DL Scrambling Code#	M
		Channelization Code#	
	:	:	
PCH#e	DL Scrambling Code#		
	Channelization Code#		

Neighbor Cell Info.	Neighbor Cell #0	BCH DL Scrambling Code#	M
		BCH DL Transmission Power	
		Other parameters	
	:	:	
	Neighbor Cell #f	BCH DL Scrambling Code#	
		BCH DL Transmission Power	
		Other parameters	
Neighbour Cell List Info.	Cell List Reference ID		M
	Intra/Inter system	Value: UMTS	M
	Mode	Value: TDD	M
	Chip Rate		M
	Radio Frequency		M
Control CH Info.	FFS		FFS
Neighbor Cell Info.	FFS		FFS
Neighbour Cell List Info.	Cell List Reference ID		M
	Intra/Inter system	Value: GSM	M
	FFS		FFS
Control CH Info.	FFS		FFS
Neighbor Cell Info.	FFS		FFS
UL Open Loop Power Control Info. (for UMTS)	UL Target SIR		M
Others	FFS		

**Table 5 Physical CH Parameters**

## 6. References

[1] RAN TSG WG2 S2.31 V0.0.1, Description of the RRC protocol;