

TSG-RAN Meeting #11
Palm Springs, CA, U.S.A., 13-16 March 2001

RP-010272

Title: Updated Work Item Sheet for RRM optimization for Iur and Iub to reflect the closure of the release 4 work

Source: Rapporteur

Agenda item: 6.6.9

Updated version: Only sections 10 and 14c are updated.

Work Item Description

Title

RRM optimizations for Iur and Iub

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 **Linked work items**

None

3 **Justification**

Optimising the existing procedures will increase the efficiency of UTRAN and the quality of service to the end user.

4 **Objective**

This work item focuses on optimising the existing procedures and functions related to:

1) Congestion handling of DCH

Currently a DRNC accepting a dedicated RL, in principle needs to reserve resources for the maximum bitrate which could possibly be required for the DCH's on this RL. This because the DRNC has a very limited view on the load statistics of the DCH's (source descriptor) and has no possibility to control the DL-rate of the DCH's in congestion situations.

2) Procedure parallelism on Iub/Iur

Currently almost no procedure parallelism is allowed in NBAP/RNSAP (dedicated) procedures. As a result, an RRM procedure used for handling problems in a fast changing radio environment, could have to wait for termination of a procedure e.g. introducing a new service on the RL.

In order to improve the capability of the UTRAN to respond to fast changes in the radio environment, the restrictions on parallelism between procedures coping with radio environment changes (e.g. RL_ADDITION/RL_DELETION) and other procedures (e.g. RL_RECONFIGURATION) should be decreased.

3) DPC Rate Reduction in soft handover

Currently R1 describes two DPC_modes in 25.214, however mode change signalling is not supported by R3.

By supporting DPC-mode change signalling in the UTRAN, the UTRAN should be better capable of combating power drifting in the DL.

4) Introduction of common measurements over Iur

It is proposed to study the usefulness of / possibilities for introducing common measurements on Iur. For example, at present an SRNC has no information regarding cell load information in neighbouring cells on a DRNC when making soft handover decisions. A study should indicate whether clear benefits exist of providing such load information to a neighbouring CRNC.

If this, or other possible measurements are identified, a common measurement procedure as currently supported on Iub could be introduced in RNSAP.

5) Extension of Radio Interface Parameters updating in the user plane

Currently the Iub/Iur DCH FP supports a fast update of the TPC Power Offset in the DL RL via user plane signalling.

It should be studied if more radio interface parameters would benefit from a similar handling. If such parameters are identified, the user plane should be extended for this purpose.

6) Separation of resource reservation and radio link activation

This work task aims at introducing the possibility to have dedicated resources reserved in UTRAN without transmitting energy on the corresponding radio link(s). Furthermore, a separate mechanism for activating and deactivating radio transmission related to the reserved resources shall be introduced.

The separation will enable the following optimisations in UTRAN:

- delayed activation of a radio link at soft handover for high bit rate users, thus avoiding a potential handover problem;
- quicker channel type switching back to Cell_DCH;
- quicker radio link additions of radio links that recently were part of the active set;

7) Triggering of the Common Transport Channel Resources Initiation procedure by DRNC

Currently the DRNC has no possibility to request an SRNC to move a UE from using one combination of RACH/FACH channels to other RACH/FACH channels. However this functionality is provided by R(99) RRC signalling and is considered beneficial for obtaining a good distribution of the common resource usage in the DRNS.

For R(00) an appropriate solution should be specified to provide this capability to the DRNC.

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	X
Don't know					

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

It is proposed to maintain the “RRM optimizations for Iur and Iub Building Block” as a continuously ongoing Building Block.

It is also proposed to handle Release 5 worktasks under this BB in separate WI-sheets, and result in separate TR's. Therefore, TR25.935 can be brought to v4.0.0, finalising the 6 worktasks indicated below.

1) Congestion handling of DCH

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for lur and lub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.423	339	RNSAP		RAN #11		

2) Procedure parallelism on Iur/Iur

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iur	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

Finalised without specification impact.

3) DPC Rate Reduction in soft handover

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for Iur and Iur	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.427	45	Iur/Iur dedicated transport channel user plane		RAN #11		
25.423	320	RNSAP		RAN #11		
25.433	373	NBAP		RAN #11		
25.433	387	NBAP		RAN #11		

4) Introduction of common measurements over Iur

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for lur and lub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	
25.420	12	lur general aspects and principles		RAN #11		
25.423	323	RNSAP		RAN #11		

5) Extension of Radio Interface Parameters updating in the user plane

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for lur and lub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

Finalised without specification impact.

6) Separation of resource reservation and radio link activation

Not finalised; proposed to be handled in separate WI-sheet for Release 5.

7) Triggering of the Common Transport Channel Resources Initiation procedure by DRNC

New specifications						
Spec No.	Title	Prime resp. WG	2 nd ary resp. WG(s)	Presented for endorsement at plenary#	Approved at plenary#	Comments
25.935	RRM optimizations for lur and lub	WG3		RAN #11	RAN #11	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#	Comments	

Finalised without specification impact.

11 Work item rapporteurs

Gert-Jan van Lieshout (Ericsson)

12 Work item leadership

TSG-RAN WG3

13 Supporting Companies

TSG-RAN

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

14b The WI is a Building Block: parent Feature

Radio Interface Improvement feature and UTRAN Improvement feature

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

Starting from Release 5, each Work Task under this Building Block will be described in a separate WI-sheet.