

TSG-SA Meeting #6
Nice, France, 15 – 17 December 1999

TSGSP#6(99)617

Source: TSG-RAN
Title: Unfinished items proposed for inclusion in R99
To: TSG-SA
CC:

The following items are proposed to be still included in Release 99. The relevant R99 cover sheets are attached.

1. Compressed mode with puncturing (Method A)
2. Out-of-synch handling
3. TDD cell parameter cycling
4. Parity bit attachment to 0 bit transport block
5. Cell broadcast protocols between SMS-CBC and RNC
6. Support of soft handover during active compressed mode pattern
7. Delay performance requirements
8. Delayed activation at Radio Link establishment
9. DRX parameter on Iur
10. DSCH (FDD+TDD) and USCH (TDD) on Iub
11. Version handling and compatibility issues for Iub/Iur userplane protocols
12. Iu time alignment
13. Capacity modelling of Node B resources
14. Partial relocation procedure
15. Physical channel reconfiguration procedure on Iur
16. Support in UTRAN for specific LCS methods
17. Triggering of the Common Transport channel resources initiation procedure (selection of S CCPCH)
18. DSCH and USCH on Iur
19. Node B origination of SIBs on BCCH
20. Tracing deactivation from CN
21. CPICH SIR Measurement
22. CPCH (Common Packet Channel)
23. Turbo interleaver
24. Cell selection/reselection
25. Downlink Outer Loop Power control
26. Cell selection/reselection
27. Management of UE capability (ClassMark)

1 Compressed mode with puncturing (Method A)

Release 1999 Submission form

Work Area / Item:		Compressed mode with puncturing (Method A)			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		3/2000			
Services impacted:		Baseline capability			
Specifications affected:		25.212			
Tasks within work which are not complete:			The details with several transmission time intervals need to be clarified		
Consequences if not included in Release 1999:			Would result to different base line capability for Release -99 and release 2000 terminals with respect how they are provided the compressed frames for interfrequency/intersystem measurements. Potential performance problems have been brought up with having only the spreading factor halving method in release -99.		
Accepted by TSG#		for late inclusion in Release 1999:			

2 Out-of-synch handling

Release 1999 Submission form

Work Area / Item:		Out-of-synch handling			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: No:X
Expected Completion Date:		3/2000			
Services impacted:		Not a service dependent feature			
Specifications affected:		25.214 & 25.224			
Tasks within work which are not complete:			The behaviour of UE (FDD) when downlink is detected out of syncn needs some refinements and is not currently specified at all for TDD UE. The Node B needs to provide at least out-of-synch indication to higher layers, whether something else needs to be defined for UTRAN is not clear.		
Consequences if not included in Release 1999:			Essential to release -99 to define UE behaviour in problem situation		
Accepted by TSG#		for late inclusion in Release 1999:			

3 TDD cell parameter cycling

Release 1999 Submission form

Work Area / Item:		TDD cell parameter cycling			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		3/2000			
Services impacted:		Not a service dependent feature (baseline, if included, for both UE and UTRAN)			
Specifications affected:		25.221, 25.223, 25.224			
Tasks within work which are not complete:			Evaluation of the performance impact to be done and decisions on whether cycling is done over 2 or 4 cells needed		
Consequences if not included in Release 1999:			Causes backwards compatibility problem between Release -99 and Release 2000 if not included in Release -99 and only in Release 2000		
Accepted by TSG#		for late inclusion in Release 1999:			

4 Parity bit attachment to 0 bit transport block

Release 1999 Submission form

Work Area / Item:		Parity bit attachment to 0 bit transport block			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: No: X
Expected Completion Date:		3/2000			
Services impacted:		Baseline capability			
Specifications affected:		25.212			
Tasks within work which are not complete:			To clarify the inconsistency between WG1 and WG2 on handling the 0 bits transport block size.		
Consequences if not included in Release 1999:			Potentially the performance of outer loop power control would be degraded.		
Accepted by TSG#		for late inclusion in Release 1999:			

5 Cell broadcast protocols between SMS-CBC and RNC

Release 1999 Submission form

Work Area / Item:		Cell broadcast protocols between SMS-CBC and RNC			
Affects:	UE/MS:	CN: X	UTRAN: X	Compatibility Issues:	Yes: No:X
Expected Completion Date:		3/2000			
Services impacted:		Cell Broadcast Service			
Specifications affected:		25.401, 25.410, 25.413, new spec 25.419 ?			
Tasks within work which are not complete:			No work has been done so far in RAN WG3.		
Consequences if not included in Release 1999:			Service not supported.		
Accepted by TSG#		for late inclusion in Release 1999:			

6 Support of soft handover during active compressed mode pattern

Release 1999 Submission form

Work Area / Item:		Support of soft handover during active compressed mode pattern			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Services using DCH			
Specifications affected:		25.433, 25.423			
Tasks within work which are not complete:			- Need to include compressed mode information also in Radio Link Setup and Radio Link Addition procedures.		
Consequences if not included in Release 1999:			It is impossible to add a radio link while a compressed mode pattern is active. CM must be deactivated before the RL addition, and then reactivated. Means increased dropped call rate.		
Accepted by TSG#		for late inclusion in Release 1999:			

7 Delay performance requirements

Release 1999 Submission form

Work Area / Item:		Delay performance requirements			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Services using DCH			
Specifications affected:		25.401			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - An overall delay budget for Access Stratum - Delay performance requirements on nodes in UTRAN 		
Consequences if not included in Release 1999:			Possibly interoperability problems on Iur and Iub due to different delay allocations		
Accepted by TSG#		for late inclusion in Release 1999:			

8 Delayed activation at Radio Link establishment

Release 1999 Submission form

Work Area / Item:		Delayed activation at Radio Link establishment			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Services mapped to DCH.			
Specifications affected:		25.423, 25.433			
Tasks within work which are not complete:			<p>Add some parameters and a new message on Iur and Iub to make it possible to separate the resource reservation phase from the activation of transmission.</p> <p>A proposal exists in RAN3.</p>		
Consequences if not included in Release 1999:			<p>Possible problem at soft handover for high data rate users (disturbance from new cell before radio link has been added to the UE active set). This means potentially dropped calls.</p>		
Accepted by TSG#		for late inclusion in Release 1999:			

9 DRX parameter on Iur

Release 1999 Submission form

Work Area / Item:		DRX parameter on Iur			
Affects:	UE/MS: x	CN:	UTRAN: X	Compatibility Issues:	Yes:x No:
Expected Completion Date:		3/2000			
Services impacted:		Not service related			
Specifications affected:		25.423 25.331			
Tasks within work which are not complete:			- Need to align 25.423 and 25.331 with respect to parameters to transfer for variable DRX cycle.		
Consequences if not included in Release 1999:			Paging over Iur is not supported, which means that registration areas cannot overlap RNC borders.		
Accepted by TSG#		for late inclusion in Release 1999:			

10 DSCH (FDD+TDD) and USCH (TDD) on Iub

Release 1999 Submission form

Work Area / Item:		DSCH (FDD+TDD) and USCH (TDD) on Iub			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		All services mapped to DSCH			
Specifications affected:		25.433, 25.435?			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - FDD: signalling of DSCH parameters need to be included in 25.433 - TDD: signalling of DSCH and USCH parameters need to be included in 25.433 or 25.435. Due to harmonisation with FDD model, the reallocation of physical channels need to be supported on Iub. - Alignment of number of DSCHs supported to one UE. In case >1: need to solve how to signal TFI over Iub. Input needed from R1 and R2. 		
Consequences if not included in Release 1999:			DSCH and USCH is not supported on Iub. Degraded performance of highspeed packet services in the downlink. Limitation of capacity due to code shortage.		
Accepted by TSG#		for late inclusion in Release 1999:			

11 Version handling and compatibility issues for Iub/Iur userplane protocols

Release 1999 Submission form

Work Area / Item:		Version handling and compatibility issues for Iub/Iur userplane protocols			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes:x No:
Expected Completion Date:		3/2000			
Services impacted:		Not service dependent			
Specifications affected:		25.425, 25.435, 25.427, 25.423, 25.433			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - Principle for DCH UP need to be agreed - Version handling of UP in NBAP and RNSAP - Mechanisms in UP protocols, if any 		
Consequences if not included in Release 1999:			May cause backward compatibility problems in future releases (e.g. handling soft handover between R99 and R00 Node Bs)		
Accepted by TSG#		for late inclusion in Release 1999:			

12 Iu time alignment

Release 1999 Submission form

Work Area / Item:		Iu time alignment			
Affects:	UE/MS:	CN: X	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Radio Access Bearer for speech			
Specifications affected:		25.402, 25.415			
Tasks within work which are not complete:			Initial proposals have been discussed in RAN WG3.		
Consequences if not included in Release 1999:			Higher one-way delay (up to 20 ms) for speech service.		
Accepted by TSG#		for late inclusion in Release 1999:			

13 Capacity modelling of Node B resources

Release 1999 Submission form

Work Area / Item:		Capacity modelling of Node B resources			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Not service dependent.			
Specifications affected:		25.433			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - A definition has not been agreed on how to model Node B resources to give the CRNC an approximation of available resources. The difficulty is to do a model which is not based on any assumptions on Node B implementation. 		
Consequences if not included in Release 1999:			<p>The CRNC has no information about Node B internal resources. The CRNC can therefore not reserve Node B internal resources e.g. for incoming handovers.</p>		
Accepted by TSG#		for late inclusion in Release 1999:			

14 Partial relocation procedure

Release 1999 Submission form

Work Area / Item:		Partial relocation procedure			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Any service			
Specifications affected:		25.413, 25.331			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - R3: A solution exists in 25.413, pending acknowledgement from other groups. - R2: Further work may be needed on 25.331. - The use of NAS binding id within the Access Stratum should be clarified (R2-R3-N1). 		
Consequences if not included in Release 1999:			Partial relocation is not supported, which is a problem e.g. for handover to GSM, where some services must be dropped.		
Accepted by TSG#		for late inclusion in Release 1999:			

15 Physical channel reconfiguration procedure on Iur

Release 1999 Submission form

Work Area / Item:		Physical channel reconfiguration procedure on Iur			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Not service related			
Specifications affected:		25.423			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - The procedure exists but some more details are needed. - Crossing signalling and interaction with other procedures (this procedure is initiated from the "wrong" direction) 		
Consequences if not included in Release 1999:			Essential for reasonable performance (code resource handling)		
Accepted by TSG#		for late inclusion in Release 1999:			

16 Support in UTRAN for specific LCS methods

Release 1999 Submission form

Work Area / Item:		Support in UTRAN for specific LCS methods			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		LCS			
Specifications affected:		25.401, 25.402?, 25.423, 25.433, others?, 25.305, 25.331			
Tasks within work which are not complete:			R3: No work done so far. R2: LCS stage 2 and RRC signalling		
Consequences if not included in Release 1999:			Only basic support for positioning (e.g. cell based, roundtrip delay based) are supported		
Accepted by TSG#		for late inclusion in Release 1999:			

17 Triggering of the Common Transport channel resources initiation procedure (selection of S CCPCH)

Release 1999 Submission form

Work Area / Item:		Triggering of the Common Transport channel resources initiation procedure (selection of S CCPCH)			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Services using RACH/FACH			
Specifications affected:		25.423			
Tasks within work which are not complete:			- Mechanism for switching S CCPCH within a cell		
Consequences if not included in Release 1999:			Dropped RRC connections when shutting down a FACH.		
Accepted by TSG#		for late inclusion in Release 1999:			

18 DSCH and USCH on Iur

Release 1999 Submission form

Work Area / Item:		DSCH and USCH on Iur			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		All services mapped to DSCH / USCH			
Specifications affected:		25.425, 25.423			
Tasks within work which are not complete:			Very little work has been done so far in RAN WG3.		
Consequences if not included in Release 1999:			At inter-RNS mobility when using DSCH or USCH: - either a SRNS Relocation is forced - or a channel type switching is needed to map the service to another channel type.		
Accepted by TSG#		for late inclusion in Release 1999:			

19 Node B origination of SIBs on BCCH

Release 1999 Submission form

Work Area / Item:		Node B origination of SIBs on BCCH			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		System broadcast information			
Specifications affected:		25.433			
Tasks within work which are not complete:			<ul style="list-style-type: none"> - R2: specify which SIBs, if any, shall be mandatorily supported by the Node B - R3: Include results of R2 into Iub protocols 		
Consequences if not included in Release 1999:			Possible multivendor issue.		
Accepted by TSG#		for late inclusion in Release 1999:			

20 Tracing deactivation from CN

Release 1999 Submission form

Work Area / Item:		Tracing deactivation from CN			
Affects:	UE/MS:	CN:	UTRAN: X	Compatibility Issues:	Yes: No:
Expected Completion Date:		3/2000			
Services impacted:		Tracing (O&M)			
Specifications affected:		25.413			
Tasks within work which are not complete:			A proposal exists in RAN WG3 but has not been agreed.		
Consequences if not included in Release 1999:			Resources wasted for unnecessary tracing for longlived connections.		
Accepted by TSG#		for late inclusion in Release 1999:			

21 CPICH SIR Measurement

Release 1999 Submission form

Work Area / Item:		CPICH SIR Measurement			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes:X No:X
Expected Completion Date:		3/2000			
Services impacted:		Not a service dependent feature (baseline, if included, all Ues will support			
Specifications affected:		25.215, 25.225, 25.302, 25.331			
Tasks within work which are not complete:			None in TSG RAN WG1, Conclusions to be reached on the possible feasibility for handover and cell selection in TSG RAN WG4		
Consequences if not included in Release 1999:			Compatibility depends on the intended use. Potential system capacity reduction		
Accepted by TSG#		for late inclusion in Release 1999:			

22 CPCH (Common Packet Channel)

Release 1999 Submission form

Work Area / Item:		CPCH (Common Packet Channel)			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: No:X
Expected Completion Date:		3/2000			
Services impacted:		Packet data services in uplink			
Specifications affected:		25.211, 25.213, 25.214, 25.302, 25.303, 25.321, 25.331, 25.435, 25.425, 25.433, 25.423, 25.101, 25.104, 25.141			
Tasks within work which are not complete:			The issues with respect CPCH channel monitoring and possible use of channel assignment needs to be concluded. Testing aspects (functional or performance or both), CPCH interlayer model, Support in Iur & Iub & Admissing control to be solved.		
Consequences if not included in Release 1999:			It has been suggested to be more efficient than existing solutions (RACH or DCH) for uplink packet data operation in certain scenarios		
Accepted by TSG#		for late inclusion in Release 1999:			

23 Turbo interleaver

Release 1999 Submission form

Work Area / Item:		Turbo interleaver			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: No:X
Expected Completion Date:		3/2000			
Services impacted:		Services with momentary data rates smaller than 32 kbits/s and where use of Turbo coding would be desirable. (Typically low bit error rate)			
Specifications affected:		25.212 & 25.222			
Tasks within work which are not complete:			On a transport channel it is not possible nor desirable to change channel coding on a frame by frame basis. The operation with variable rate transmission and turbo coding is lacking smaller turbo interleaving sizes than 320 bits. The smaller sizes like 160, 80 or 40 bits (exact sizes to be specified in detail by RAN WG1) to be defined to extend the set of rates than can be operated efficiently with variable rate services where quality would require use of turbo codes in practise.		
Consequences if not included in Release 1999:			Limitations would be introduced for variable rate services operation at lower data rates (when momentary data rate would be below 32 kbits/s). Modifications needed in other TSG RAN specifications to model the restrictions for variable rate services if not included in TSG RAN WG1 specifications.		
Accepted by TSG#		for late inclusion in Release 1999:			

24 Cell selection/reselection

Release 1999 Submission form

Work Area / Item:		Cell selection/reselection			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		March 00			
Services impacted:		System performance			
Specifications affected:		25.304, 25.331			
Tasks within work which are not complete:			Hierarchical cell structure UE behaviour on Cell Barring GSM vs UMTS cell comparison (if necessary)		
Consequences if not included in Release 1999:			System performance and planning restrictions		
Accepted by TSG#		for late inclusion in Release 1999:			

25 Downlink Outer Loop Power control

Release 1999 Submission form

Work Area / Item:		Downlink Outer Loop Power control			
Affects:	UE/MS: X	CN:	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		March 00			
Services impacted:		System performance			
Specifications affected:		25.331, 25.302, 25.101, 25.104			
Tasks within work which are not complete:			Definition of algorithm and necessary parameters		
Consequences if not included in Release 1999:			System performance		
Accepted by TSG#		for late inclusion in Release 1999:			

26 Cell selection/reselection

Release 1999 Submission form

Work Area / Item:		Cell selection/reselection			
Affects:	UE/MS: X	CN: X	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		March 00			
Services impacted:		SoLSA			
Specifications affected:		25.304, 25.331, 25.413			
Tasks within work which are not complete:			Support on Iu (not started) LSA definition UE behaviour in Idle Mode		
Consequences if not included in Release 1999:			No support for SoLSA in UMTS cells		
Accepted by TSG#		for late inclusion in Release 1999:			

27 Management of UE capability (ClassMark)

Release 1999 Submission form

Work Area / Item:		Management of UE capability (ClassMark)			
Affects:	UE/MS: X	CN: X	UTRAN: X	Compatibility Issues:	Yes: X No:
Expected Completion Date:		March 00			
Services impacted:		all			
Specifications affected:		25.331			
Tasks within work which are not complete:			Contents of initial UE capability information Global split between CN/AN to check (may be fine already)		
Consequences if not included in Release 1999:			System not running		
Accepted by TSG#		for late inclusion in Release 1999:			