

**Agenda Item:**

**Source:** Ericsson

**Title:** Proposal for TSG RAN WG1 work plan

**Document for:**

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## 1 Introduction

In order to progress the work within TSG RAN WG1 and ensuring that a full specification is available at the end of 1999, the work has to be planned and scheduled. Some parts of the specification require more attention from the start since other groups are dependent on those parts, while other parts are not so time critical. Also, things that are very near completion should be finalised soon, not dragging these items along during the whole year and then having to finalise everything in December. Also, milestones are required to be able to monitor if work is progressing according to plans.

This document discusses the meeting schedule, proposes a work plan and also a set of milestones.

Note that an identical proposal for meeting schedule, milestones and version numbering has been or will be submitted to WG2, WG3 and WG4.

## 2 Meeting schedule

TSG RAN WG1 meetings should be held often enough to be able to progress the work on the meetings. On the other hand, with too little time between meetings, there is not enough time for the editors to do the editing work, arranging ad hoc meetings on particular subjects that needs special treatment, preparing input documents and doing technical evaluations, etc. Moreover, there will also be TSG RAN meetings to attend. A reasonable frequency of TSG RAN WG1 meetings could be one meeting roughly every six weeks. Of course the work and milestone plan should be aligned with the meeting schedule, but since the exact schedule is yet unknown, the dates in the plans below have been quantized to the nearest month. With a meeting schedule fixed, it is possible to distribute the milestones to individual meetings.

## 3 Milestones

The proposed work plan and milestones are based upon the specification proposal described in [1]. Hence, for a more detailed explanation of the scope of the specification documents, please refer to [1]. For each specification document two milestones are set up, corresponding to finalisation and approval of main versions of the document. The first milestone is when the specification document is first approved by the TSG RAN. The second milestone is the final specification in end of 1999, i.e. the "Release 99". Before the first milestone there will of course be draft versions of the specification documents (V0.x.x). Before the second milestone, the different specification documents can be approved by the TSG RAN more than one time, depending on the document's status. In Release 99, the version numbers will probably be aligned.

### 3.1 Specification document version numbering

The specifications in the work plan are numbered according to a three digit numbering system. The first digit is increased when a new version is approved by TSG RAN. The second digit is increase when a new version is approved by WG1. The last digit is raised after every new version released by the editor provided that the new version is not of any of the previously mentioned types. For example, version V0.0.1 is the first version of the specification created by the editor. Version V0.1.0 is the first version approved by WG1 and V1.0.0 is the first version approved by TSG RAN (i.e. corresponds to the first milestone).

## 4 Work and milestone plan

For each specification document several tasks can be identified, each of which has to be finished before the whole specification document can be approved. An example of a task is "physical channel timing relationship" in the "Transport channels and physical channels" specification document. In the work plan, some tasks are scheduled to end during the first part of the year. This does not

mean that such a part of the specification cannot be changed later during the year if there are very good reasons for doing so, but the main work effort should be put on the specific item up to the task deadline, so that that specification part can be viewed as stable. In general, TDD is behind FDD, but work on the TDD mode may benefit from the FDD discussions and copying/altering FDD solutions.

The proposed work plans are found in the tables below, where the following symbols are used:

- 1** Version 1.0.0 of the document approved
- R** Release 99 of the document approved
- X** Task finalised, i.e. no more work is expected on this topic.

Item and tasks	J a n	F e b	M a r	A p r	M a y	J u n	J u l	A u g	S e p	O c t	N o v	D e c
<b>Physical layer general description</b>										<b>1</b>		<b>R</b>
ts							X					
ts									X			
<b>Capabilities</b>										<b>1</b>		<b>R</b>
ts						X						
ts									X			

**Table 1: Work plan, general WG1 documents.**

Area and tasks	J a n	F e b	M a r	A p r	M a y	J u n	J u l	A u g	S e p	O c t	N o v	D e c
<b>Transport channels and physical channels (FDD)</b>									1			R
Transport channels definition				X								
Physical channels definition					X							
Relationship between physical channels						X						
<b>Multiplexing and channel coding (FDD)</b>									1			R
• Multiplexing scheme											X	
• Multiplexing limitations											X	
• Channel coding												X
• Interleavers											X	
<b>Encoding and modulation (FDD)</b>								1				R
Bit stream scrambling				X								
Preamble codes						X						
Scrambling codes					X							
Modulation					X							
Constellation					X							
<b>Physical layer procedures (FDD)</b>								1				R
Channel access control						X						
Channel access					X							
Channel access control						X						
<b>Measurements (FDD)</b>									1			R

Table 2: Work plan, FDD mode WG1 documents.

Tasks	J	F	M	A	M	J	J	A	S	O	N	D
	a	e	a	a	a	u	u	u	e	c	o	e
	n	b	r	r	y	n	l	g	p	t	v	c
<b>Transport channels and physical channels (TDD)</b>										1		R
Transport channels definition					X							
Physical channels definition, mapping and slot format							X					
Relationship between physical channels							X					
<b>Multiplexing and channel coding (TDD)</b>										1		R
Multiplexing scheme						X						
Multiplexing limitations						X						
Channel coding								X				
Channel coding parameters								X				
<b>Modulation and modulation (TDD)</b>								1				R
Modulation					X							
Modulation coding						X						
Modulation parameters					X							
<b>Physical layer procedures (TDD)</b>										1		R
Time synchronisation						X						
Frequency synchronisation								X				
Power control					X							
Channel control								X				
Other tasks								X				
<b>Measurements (TDD)</b>										1		R

Table 3: Work plan, TDD mode WG1 documents.

## 5 Work plan fulfilment

In order to be able to meet the (tight) deadlines and progress the work within the group in an effective way, it is essential that a meeting schedule is decided upon so that planning for each meeting can be done. Although outside WG1's control, it would be very good to also set the TSG RAN meeting schedule, since it is that group that will approve the 1.0.0 version of the documents. The WG1 work plan can then be adapted to the TSG RAN meeting schedule, making sure that the right documents are finalised in time. It is also important to assign editors for each specification document as soon as possible. One of the most important tasks the editor will have is to ensure that the structure of the document is very specification-like. To transform the available documentation to something acceptable as specification by the end of the year requires a lot of thinking and initiatives from the editors. Also, by assigning editors as soon as possible, the editing of the documents and merging of concepts from different organisation partners can soon begin.

To ensure that the different specification documents are written in a similar style, and that consistency between documents is achieved, it is proposed to form an editing group, consisting of the editors and other interested parties (possibly from other WGs). The group could have physical meetings, but the main forum for discussion will be through e-mail, using an e-mail reflector. In order to fulfil the work plan, it is also important that work can go on in parallel. For this ad hocs could be set up to deal with certain topics. These ad hocs could meet during the RAN WG1 meetings, or have their own meetings scheduled if needed. It is proposed that the ad hocs have rather large mandate to decide on the issues they are dealing with, since it is not very efficient to open up discussion on the issues once again when the ad hoc results are presented to the plenary.

## 6 Conclusion

It is proposed that TSG RAN WG1 should have meetings roughly once every six weeks. Moreover, a work plan and milestone plan has been presented, and it is proposed that these plans are adopted by WG1 for the continuing work during 1999. Similar work plans, created using the same principles, have been or will be proposed also for the other WGs.

In order to accelerate the work, it is proposed to schedule the meetings and assign editors for the specification documents as soon as possible, preferably on this meeting.

## References

- [1] 3GPP/TSGR.1#1(99)-005, "Proposal for TSG RAN WG1 specification structure", Ericsson.

