Technical Specification Group, Radio Access Network
Meeting #3, Yokohama, 21-23 April 1999

TSGR#3(99)229

Source: **Motorola**

Title: **RAN WG 4 Document status and proposed project plan**

Document for: **Information**

Agenda Item:

As Chairman of RAN WG 4 it has become increasing obvious that we need a detailed plan to progress our w
However with the ever-increasing workload it has become difficult to encourage participants to develop such
Therefore Motorola has started this process with this detailed proposal. It is presented to TSG RAN for infor
only, and will be presented at the next WG4 meeting in Stockholm for approval by the working group. If app
will be re-presented here at RAN level during the next meeting.

Current Status

25.150 Introduction

This document needs to be updated to cover the changes to the document numbering scheme. The major change will be to the work plan section. This is dynamic and should reflect the groups current understanding of status and work plan.

The text has not effect on product development.

The current text is stable.

25.101 MS Radio transmission and reception (FDD)

This is the most advanced of all the technical specifications.

Section 3 Symbols and abbreviations. This section does not line up with the definitions being used by WG1. example extensive use of the term Perch channel is made. In S1.11 no mention of this is made, the CCPCH a are used instead. This will require extensive editorial changes when the terminology used in WG 1 is conside stable.

Section 4 - General. This is considered stable, although further editorial changes may be needed.

Section 5 - Frequency bands and channel requirements. This only represent the European and Japanese regio the moment. Further information from US, Korean, and other interested regions is needed. The frequency ba stable but more may be added. Channel spacing still under discussion with a variable duplex spacing and a r number of channels. Channel numbering scheme is still required from RAN WG2.

Section 6 - Transmitter characteristics. This whole section is starting to become stable. Output power classes been agreed, although some of the tolerances need final confirmation for high power classes 1-3. For class 4 power class and tolerance has been agreed. . Closed loop power control still needs further work. A 1dB step been agreed with a =/- .5 dB tolerance. . WG 1 has requested that larger step sizes will be needed, WG4 agre this will change the tolerances, work is ongoing. Output RF spectrum is the largest of the open issues at the time. Simulation work is ongoing in this area. Some of these specifications may effect adjacent bands therefo interaction with other groups such as CEPT ERC TG1 will be needed before these become finalised. Modula accuracy needs to be set although draft values have been proposed..

Section 7 - Receiver characteristics. None of the sub-sections can be finalised until WG 1 have finalised thei and generated approved link level simulation results. Work on RF scenarios is also required to build the test The key requirement are channel coding for the measurement channel, EB/No , etc

Section 8 - Performance requirements. This is the same as section 7, WG 1 have to complete their work.

Appendix 1. Needs confirmation from WG 1.

Appendix 2. A new dynamic channel model is under discussion on the email reflector.

25.104 BTS Radio transmission and reception (FDD)

Section 4 - General. As indicated this complete specification is intended for a general BTS, if other types of proposed additional work will be required. This section is stable.

Section 5 Frequency bands. References 25.101, stable.

Section 6 Transmitter characteristics. Output power is to be declared by the manufacturer, stable. Frequency needs approval. This needs work to justify the proposed figure, this will be put into the RF scenarios docume Power control needs further work, at present a 18 dB dynamic range with 1 dB step size is proposed along w of tolerances. Output RF transmissions are in the same state as with the mobile, simulation work is ongoing. Spurious emission are also the same as with the MS, further work, possibly with other committees, needed.

Section 7 Receiver characteristics. Same as mobile, work in WG 1 needs to be completed, along with the RF scenarios.

Section 8 - Performance requirements. Same as mobile, work in WG 1 needs to be completed.

25.102 MS Radio transmission and reception (TDD)

This document is currently a copy of 25.101, with the changes made to reflect TDD where known. This who document needs further work and little checking has been made at this time.

Section 5 - Frequency bands. Confirmation of the use of TDD in the FDD band is needed. This will have a m
impact on all the RF specification (TDD and FDD).

Section 6 Transmitter characteristics. Output powers have not been set, current proposals mirror the FDD cla
with 2 additional lower ones. All the figures proposed in this section need to be confirmed.

Section 7 Receiver characteristics. Work from WG 1 needs to completed, along with work on the RF scenari

Section 8 - Performance requirements. Work from WG 1 needs to completed, along with work on the RF sce

25.105 BTS Radio transmission and reception (TDD)

This is in a similar state to 25.102. Considerable work is needed; none of the parameters have been approved

25.103 RF parameters in support of RRM

This is a relatively new document. Only the table of contents can be considered close to being stable.

25.141 Basestation conformance testing (FDD)

The first version of this document was presented to the last WG 4 meeting. Due to a shortage of time and the
have the companies experts view the document, it was simply noted.

25.142 Basestation conformance testing (TDD)

This document does not exist yet.

25.113 Basestation EMC

The whole area of EMC has started to be examined. This is area that requires detailed expertise that the grou
slowly acquiring. A proposal for text for this document was made, based upon European requirements. The g
has decided to shelf this for the moment and work on a detailed technical report comparing the EMC require
from the different regions. The aim is to see if a common specification is possible, of if regional variants are
option.

25.151 RF System scenarios

Being the basis for all our specifications this is perhaps the most important document to complete and appro
Being a report it was not presented to this RAN TSG meeting.

We are fast approaching agreement of the simulation parameters we should use to complete the technical wo this area. Assumptions about the various scenarios have been agreed.

Work Plan

Starting at the end, we agreed at the last RAN meeting to have specifications available for the December RAN meeting. WG 4 has agreed the following meeting schedule

RAN WG 4 #4, 10 - 12 May, Stockholm
RAN WG 4 #5, 14 - 16 June, Miami, T1P1
RAN 17 June - 18 June
RAN WG 4 #6, 27 - 29 July, Scotland, HP
RAN WG 4 #7, 7 - 9 Sept, Makuhari, Japan, Fujitsu
RAN 29 Sept - 1 Oct
RAN WG 4 #8, 19 - 21 Oct, Host needed
RAN WG 4 #9, 30 Nov - 2 Dec, Host needed
RAN 15 - 17 Dec

Which leaves 6 meetings before the final approval date.

At the present time the completion of the TDD documents is also in doubt. With inputs predominately from a single manufacturer it is unlikely that these specifications will be completed in time. However WG 4 must attempt to complete these on time and keep RAN updated on the progress. Most of the delays originate in RAN WG1.

To complete the specifications I will propose the following time schedule at the next RAN WG 4 meeting.

RAN WG 4 #4, 10 - 12 May, Stockholm - Completion of all simulation parameters. Agreed simulation results for ACP. Initial report on BTS EMC requirements

RAN WG 4 #5, 14 - 16 June, Miami, T1P1 - Agreement of mobile and BTS output masks. Agreement on EMC specification structure. Editorial changes to all documents to reflect WG 1 terminology.

RAN 17 June - 18 June - Need link level simulation results from WG 1.

RAN WG 4 #6, 27 - 29 July, Scotland, HP. Agree frequency bands for all regions. Confirm channel spacing. Set provisional figures for all sections in 25.103. Work on setting MS and BTS performance specifications

RAN WG 4 #7, 7 - 9 Sept, Makuhari, Japan, Fujitsu. Agreed EMC specification. Agreed RF scenarios document.

RAN 29 Sept - 1 Oct

RAN WG 4 #8, 19 - 21 Oct, Host needed. Finalise all transmitter and receiver requirements. Finalise 25.103.

RAN WG 4 #9, 30 Nov - 2 Dec, Host needed. Final changes to documents, approve conformance

test documents

RAN 15 - 17 Dec

Conclusions

Work is progressing well in RAN WG4. Consensus has been achieved in all technical areas covered so far. The largest risk factor to meeting the December deadline is the rate of progress in RAN WG1.