Doc For	TSG SA	TSG CN	TSG RAN	TSG T
Decision			X	
Discussion			X	
Information	X	X		X

Agenda Item: 15

Source: Ericsson

Title: Organisation structure and start-up of the radio access network TSG

Document for:

---

1   INTRODUCTION

It is important that the organisational structure of the Radio Access Network (RAN) Technical Specification Group (TSG) is given the opportunity to finalise the RAN specifications according to its time schedule. Further, to avoid a long transition time from the specification material existing today in the different standardisation organisations contributing to the 3GPP organisation, it is important that the 3GPP RAN TSG can agree on a working group organisation of the RAN TSG that allow for a quick start of the technical work in the 3GPP RAN TSG.

In this paper we propose a working group structure of the RAN TSG. Further, for each working group we propose a set of specifications for which the respective working groups are responsible to produce and maintain.

In some cases it may be useful to create temporary ad hoc groups to solve technical issues. Therefore we propose that it should be easy to create temporary ad hoc groups within a working group, between working groups, and between TSG's.

In the paper we also propose an overall time plan to arrive at the first release of RAN TSG specifications together with a meeting schedule for the start-up of the working groups meetings.

2   PROPOSED ORGANISATION FOR RAN TSG

The following Working Groups (WG) are proposed to be established under the Radio Access Network TSG:
- WG R1 – Layer 1
- WG R2 – Layer 2 and Layer 3 Radio Resource Control
- WG R3 – Iu/Iur/Iub interface
- WG R4 – Radio requirements

It is very important that Ad Hoc (AH) groups can be established when needed. These AH groups should not be defined from the beginning but rather established as the work progress. Creation of AH groups should be viewed as an efficient way to discuss certain detailed topics in smaller groups that reports back their findings

to TSG/WG/SWG. It should further be encouraged to establish joint activity AH groups to take care of items that is cross related between groups (working groups and TSG's).

2.1 Proposal for Sub-Working Groups (SWG)

To further increase the efficiency it is possible to further break down each WG into a couple of Sub-Working Groups. Below an example for such a breakdown is shown to divide the responsibility of specification documents to certain SWGs. The example is given for the Layer 1 and Layer 2&3 WGs.

WG R1 – L1   SWG1 – Physical Channels + Coding + Interleaving + Multiplexing
                                 SWG2 Modulation + Spreading
                                 SWG3 - Physical layer procedures + Measurements

WG R2 – L23   SWG1 Layer 2 MAC
                                 SWG2 - Layer 2 RLC
                                 SWG3   Layer 3 RRC

3 Specification responsibilities in the RAN TSG and its Working Groups

In 3GPP/TSGR#1-002, "Proposed specification structure for the radio access network TSG" we propose a set of specifications that the RAN TSG should produce and maintain. It is RAN TSG that is responsible to approve all of the RAN specifications. However, we propose that the RAN Working Group's develops the RAN specifications according to the following lists:

Radio Access Network TSG

S0.01	Vocabulary for the 3GPP RAN TSG
S0.02	UE capabilities

WG R1 – Layer 1

S1.01	Physical Layer – General Description
S1.02	UE capabilities
S1.11	Transport and physical channels (FDD)
S1.12	Multiplexing and channel coding (FDD)
S1.13	Spreading and modulation (FDD)
S1.14	Physical layer procedures (FDD)
S1.15	Measurements (FDD)
S1.21	Transport and physical channels (TDD)
S1.22	Multiplexing and channel coding (TDD)
S1.23	Spreading and modulation (TDD)
S1.24	Physical layer procedures (TDD)
S1.25	Measurements (TDD)

WG R2 – Layer 2 and 3RR

S23.01	Overall Description of the Radio Interface Protocol Architecture
S23.02	Services provided by the physical layer
S23.03	UE functions related to Connected Mode
S23.04	UE functions related to Idle Mode
S23.21	Medium Access Control (MAC) Protocol Specification
S23.22	Radio Link Control (RLC) Protocol Specification
S23.31	Radio Resource Control (RRC) Protocol Specification

WG R3 – Iu/Iur/Iub interface

SA.01	RAN Overall description
SA.10	General aspects of Iu interface between CN and RAN
SA.11	Principles of Iu interface between CN and RAN (function split, protocol structure)
SA.12	Iu interface Layer 1
SA.13	Iu interface signalling transport
SA.14	Iu interface CN-RAN signalling
SA.15	Iu interface data transport & transport signalling
SA.16	Iu interface CN-RAN user plane protocols
SA.20	General aspects of Iur interface
SA.21	Principles of Iur interface (function split, protocol structure)
SA.22	Iur interface Layer 1
SA.23	Iur interface signalling transport
SA.24	Iur interface RNC-RNC signalling
SA.25	Iur interface data transport & transport signalling for CCH data streams
SA.26	Iur interface user plane protocols for CCH data streams
SA.27	Iur & Iub interface data transport & transport signalling for DCH data streams
SA.28	Iur & Iub interface user plane protocol for DCH data streams
SA.30	General aspects of Iub interface
SA.31	Principles of Iub interface (function split, protocol structure)
SA.32	Iub interface Layer 1
SA.33	Iub interface signalling transport
SA.34	Iub interface RNC-Node B signalling
SA.35	Iub interface data transport & transport signalling for CCH data streams
SA.36	Iub interface RNC-Node B user plane protocols for CCH data streams

WG R4 – Radio requirements

SR.01	Radio transmission and reception (FDD)
SR.02	Radio transmission and reception (TDD)

4   TIME SCHEDULE

The first release of specifications for the 3GPP RAN should be finalized by the end of 1999. To take into account the Japanese time schedule and need for an intermediate release, we propose that a draft version of 3GPP RAN specifications are finalized at the beginning of April, 1999. There is thus a need for the RAN TSG to have a second meeting in either January or February and a March/April meeting to conclude the draft version of 3GPP RAN specifications.

5   FIRST MEETINGS

We do believe it is important to start the technical work in the RAN TSG as soon as possible to fulfil the time schedule above. Therefore we propose to schedule RAN TSG Working Group meetings in January 1999. SMG2 has the following schedule for its Expert Group meetings:

Date	What	Meeting date, place, host
7-8/12 1998	RAN TSG#1	Sophia Antipolis
19-22/1, 1999	RAN WG2#1 (SMG2 L23#9)	TBD
21-22/1	RAN WG1#1 SMG2 L1#10	TBD
29/1, 1999	RAN TSG#2 (Same week as SMG2#29)	Sophia Antipolis
2-5/2 1999	RAN WG3#1 (SMG2 ARC)	TBD
2-5/3 1999	RAN WG3#2 (SMG2 ARC)	TBD
16-19/3 1999	RAN WG2#2 (SMG2 L23#10)	TBD
6-9/4 1999	RAN WG3#3 (SMG2 ARC)	TBD
20-23/4 1999	RAN WG2#3 (SMG2 L23#11)	TBD

It would be possible to transform these meetings into 3GPP RAN TSG and RAN TSG WG meetings. There may however be a need to extend these RAN TSG WG meetings.

6   CONCLUSIONS

In conclusion we propose:

- That the organisational structure of RAN TSG is based on specification structure and divided into – L1, L23, Iu/Iur/Iub, and Radio Requirements working groups.

- There exist a possibility to create Ad Hoc groups, both within a group, and between groups in joint cross-related activities, whenever needed to progress efficiently.

- A mapping of RAN specifications to the proposed working groups

- A finalization of the first release of RAN TSG specification by the end of 1999 and that a draft version of the specifications are prepared by April 1999.

- A first meeting calender for the RAN TSG