TSG-RAN Meeting #18   RP-020694
New Orleans, Louisiana, USA,
3rd–6th December 2002

Title:	**Status Report of WI "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN"**
Document for:	**Approval**
Source:	**Nokia (WI Raporteur)**
Agenda Item	**8.5.1**

Status Report for WI to TSG

Work Item Name: "Introduction of the Multimedia Broadcast Multicast Service (MBMS) in RAN"

SOURCE: Nokia (Dimitris Koulakiotis) **TSG:** RAN WG2

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Ref. to WI sheet: <for RAN this should be: RAN_Work_Items.doc>

Progress Report since the last TSG (for all involved WGs):

Since RAN#17, MBMS discussions took place in the following WGs:
- RAN2/3#32: joint WGs meeting as well as individually.
- RAN2/3#33: due to lack of time, no MBMS contributions were treated.
- RAN1 Rel-6 AdHoc: MBMS discussions were initiated.
- RAN1#29: discussions took place.

RAN2/3#32 progressed the MBMS RAN architectural discussions. Two contributions were accepted for inclusion in the RAN stage-2 TS 25.346 "Introduction of Multimedia Broadcast/Multicast Service (MBMS) in RAN". In addition the issue of notifications was addressed and some requirements plus a definition was included in the TR 22.992 "Multimedia Broadcast/Multicast Service (MBMS); UTRAN/GERAN requirements".
The main points of this meeting can be summarised as follows:
- It was agreed that reception of MBMS multicast mode will be possible in both idle and RRC_Connected states and the first signalling flows were included in TS 25.346.
- Discussions took place on MBMS notifications and some text (requirements and definition) was added to TR 25.992.
- RAN1 was liased and asked to study a number of areas (simulcast Tx, physical channels for MBMS, power control issues, long block codes, TX diversity) and provide input to RAN2.
- An LS was also sent to SA2 outlining the progress on MBMS RAN architectural discussions and asking some clarifications on "tracking" and MBMS service creation.
- RAN3 decided to create a RAN3 internal TR (TR R3.013) for RAN3 MBMS issues. Nokia is the editor.

Due to lack of meeting time for MBMS discussions in RAN2/3#33, a Rel-6/MBMS 2 days Adhoc is planned to take place in January (before SA2#29, 20-24 January 2003). More details will become available during RAN#18.

RAN1 initiated discussions on MBMS during the Rel-6 AdHoc, addressing L1 aspects of MBMS. A second session took place during RAN1#29 where more contributions addressing the areas from the RAN2 LS were discussed. No final conclusions were reached but the outcome of the discussions (some answers and comments) was captured in the reply LS to RAN2 [R1-02-1459].

List of Completed elements (for complex work items):
- TSG SA1: Stage-1 (TS-22.146) has been completed.
- TSG SA2: Stage-2 (TR 23.846) has been completed.

List of open issues:
- Completion on RAN MBMS functions, descriptions and requirements.
- "Tracking, no-tracking areas" and counting.
- UTRAN MBMS architecture principles.
- MBMS Notifications solution(s).
- Impact of MBMS to UTRAN protocol stack.
- MBMS Logical/Transport channels issues
- Consideration of Simulacast/Soft handover in MBMS.
- MBMS Ciphering issues (input from SA3 is needed).

Estimates of the level of completion (when possible):
Rel-6.

WI completion date review resulting from the discussion at the working group:
Alignment with the equivalent TSG SA WG2 WI on MBMS architecture i.e. Rel-6

References to WG's internal documentation and/or TRs:
Latest Updates: Submitted to RAN2/3#33 but was not endorsed, due to lack of time for MBMS discussions:

R2-022927: TS 25.346-110
R2-022928: TR 25.992-110
R3-022413: R3.013: Skeleton has not been discussed/endorsed yet by RAN3.

Additional Material
Following an off-line proposal during RAN2#33, the following statistics on the MBMS contributions (submitted/treated) were compiled for the RAN2/3 meeting from #28 until #33.

RAN2 MBMS Contributions Statistics

Legend:
- Tdocs available during discussions
- Tdocs N/A during discussions
- Tdocs Treated

Meeting	Tdocs available	Tdocs N/A	Tdocs Treated
RAN2#28	6	1	6
RAN2#29	6	1	0
RAN2#30	26	0	26
RAN2#31	36	0	12
RAN2#32	34	1	15
RAN2#33	47	7	0

RAN3 MBMS Contributions Statistics

Legend:
- Tdocs Submitted
- Tdocs Treated

Meeting	Tdocs Submitted	Tdocs Treated
RAN3#28	0	0
RAN3#29	0	0
RAN3#30	4	4
RAN3#31	3	1
RAN3#32	2	2
RAN3#33	6	0