3GPP PCG14(05)10
Cancun, Mexico, 21st April 2005

TSG-RAN #26 & #27 meeting Report

Source old and new
TSG-RAN Chairman

ALCATEL

TSG RAN Elections

- Election for NEW RAN Leaders took place:
  - The old and new teams are provided in the two following slides
  - Mr Eisuke FUKUDA stepped down and he will be replaced by two new vice chairmen:
    - Mr Takehiro NAKAMURA from NTT DoCoMo
    - Dr LEE from SAMSUNG
    - Mr Don ZELMER, Cingular, was also reappointed
  - Thank you very much Eisuke and see you in the future but with another hat.

Old TSG RAN Officials

New TSG RAN Officials

Change Request Overview

- Number of CRs on Release '99 :
  - 2 CRs approved. (TSG-RAN #26: 4)
- Number of CRs on Release 4 only (non Cat A):
  - 2 CRs approved (TSG-RAN #26: 2).
- Number of CRs on Release 5 only (non Cat A):
  - 42 CRs approved (TSG-RAN #26: 44).
- Number of CRs on Release 6 only (non Cat A):
  - 128 CRs approved (TSG-RAN #26:112).
- Total number of CRs in RAN including Category A:
  - 211 CRs approved (TSG-RAN #26: 213)

ITU-R matters: Update 6 of Recommendation M.1457

- A new request from ITU-R 8/F was handled within TSG RAN and is forwarded to this meeting for consideration. It is mainly requesting 3GPP to provide documentation on IP architecture and services that can be provided with a 3G network as elaborated within 3GPP (see Tdocs SP-05169).
- Basically, TSG RAN ITU-R Ad Hoc will elaborate a first draft based on already existing documentation (I.e. Release 5 and 6 content description) and will forward the element to the WGs of TSG RAN, TSG CN and TSG SA for comments during the month of April.
- After incorporation of the comments received, it is proposed to approve it by correspondence by the TSGs during the week from May 5th 2005 till May 9th 2005.
- It will then be sent to the PCG for final approval before the deadline for submission to ITU-R 8/F
- This will be a first version which will be further elaborated for next year submission.
- The usual reminder for SDOs for sending the Update 4 of M.1547 to ITU-R was also approved.

Liaisons

- LS on considerations to avoid interference for terrestrial networks for onboard GSM networks (from ETSI MSG)
  - –The issue of terrestrial networks being interfered by on board GSM systems has already been handled but this is a warning that a draft EU decision will alaborated in June and hence element have to be produced in due time.
- LS on Sharing and compatibility studies for UMTS in 900 MHz band (ECC PT1)
  - – was handled and WG4 was requested to liaise with CEPT to provide them the relevant information.

Old Releases

- Load due to CRs on Release 99 remains extremely low, only a few CRs were approved.
  - Discussion took place during the meeting to remove one of the compressed mode configuration (TGPL2). The Release of removal was also debated, and the category of the CRs needs to be changed to Cat C. The CRs were finally approved for Rel-5 onwards.
  - Other functionalities were also presented as candidates for removal with the aim of reducing complexity and unnecessary options. It was agreed to remove some of them and WGs were tasked to elaborate the CRs for Release 5 and onwards.
- The situation in Rel-4 is very similar (2 non Cat. A CRs approved)
- Release 5: CRs (42 non Cat. A) have been approved. Stability is now achieved.

Release 6

- 128 CRs (non Cat. A) have been approved on Release 6
- Network intiated SCUDIF was completed on reception from the answer from CN.
- 'DL Transmission Branch Load' measurement was completed
- Some small issues under TEI6 are still being discussed and will be completed in June. They had been delayed due to the workload of WGs on EDCH and MBMS.
- Several work items have been finished. See detail in following slides
- Network Sharing is considered as complete from a RAN perspective but some small issues which are mainly coming from a change to the PLMN selection within CN impacting also RAN needs to be provided.

Release 6: WIs/SIs completed at RAN#27

- Performance Requirements of Receive Diversity for HSDPA was completed
- MBMS is considered as complete from a RAN WG1, WG2 and WG3. The performance requirements WI is still ongoing in WG4 and due for completion date in September 2005. Hence this cannot be considered as completed from a RAN perspective. Due to the nature of the remaining work it is reqquired that it will remain as a part of Release 6.
- On MBMS, it was discussed to reduce complexity removing one or more of the existing combining options. WG2 was tasked to review the consequences of removing to remove the RAKE MBMS combining option. This will also facilitate the faster completion of the MBMS minimum performance requirements work..
- Optimization of downlink channelization code utilization (for FDD) was completed.
- Optimization of downlink channelization code utilization (for 3.84 Mcps TDD) was completed.

Release 6
WI not completed in March 2005 or later but proposed to be kept in Release 6

- FDD Enhanced Uplink the signalling part is mainly done and the WIs in WG1, WG2 & WG3 have been closed. Corrective CRs may be needed in the future. WG4 part, Performance Requirements, is still open and due for completion in June 2005
- RAB Support enhancements could not be completed and is requested for June completion
- Performance Requirements for HSDPA UE categories 7 & 8 will be completed in June
- MBMS Performance Requirements, due for completion in September 2005.
- Late Submissions for have been produced for the WIs above (SP-050172)
- Plus several small issues still remaining under TEI resulting from postponment of documents during previous WG meetings.

Beyond Release 6: Existing WIs

- UMTS 2600 FDD (June 2006)
- UMTS 2600 TDD (December 2006)
- UMTS 900 FDD (Completion moved from Sept. to Dec. 2005)
- Inclusion of Uplink TDOA UE positioning method in the UTRAN specifications
- UE Antenna Performance Evaluation Method and Requirements
  - A new WI sheet is provided to this meeting for co-ordination because the link is now established with TSG GERAN on this issue (Tdoc SP-050170)
  - Expected completion by September 2005
- Multiple Input Multiple Output Antennas (on hold).
- Optimisation of channelisation code utilisation for 1.28 Mcps TDD (September 2005)

Beyond Release 6: New WIs approved

- Improved support of IMS Realtime Services using HSDPA/EDCH
  - Description Sheet: RP-050160, WG2 leading, completion by December 2005
- UE performance requirements for MBMS (TDD)
  - Description Sheet: RP-050156, WG4 leading, completion by March 2006
- 3.84 Mcps TDD Enhanced Uplink
  - Description Sheet: RP-050100, new feature, RAN leading, completion by June 2006
- CS and PS call setup delay improvement
  - Description Sheet: RP-050162, WG2 leading, completion by December 2005
  - To be decided if it should be a SI + TEI CRs or WI.
- Study Item on Performance Evaluation of the UE behaviour in high speed trains with speeds up to 350 kmph
  - Description Sheet: RP-050146, WG4 leading, completion by December 2005
- A proposal for a new WI on LCS Enhancements Related to Location - Based Services was defered for the next meeting as it was difficult to estimate what actually needs to be done in TSG RAN WGs before the WI in TSG SA WG2 is more advanced.

Beyond Release 6
Long term evolution for the UTRA and UTRAN

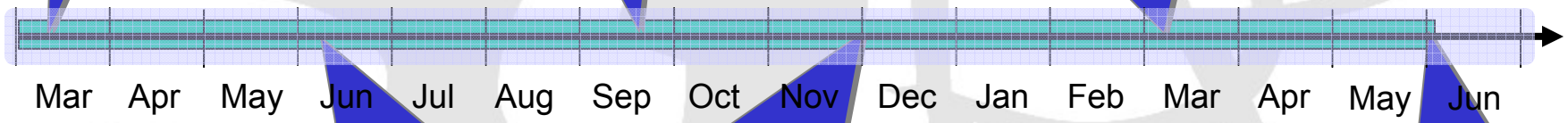
- **Study Item on Evolved UTRA and UTRAN**
  - The first joint WGs meeting took place just before TSG RAN plenary in Tokyo hosted by the Japanese Friends of 3GPP
  - More than 170 delegates attended the meeting
  - Main discussion was to review the Requirements
  - New Work plan agreed (see following slide)
  - Clarification of the work split with TSG SA Working Groups agreed
  - It is really important that companies ensure that their delegates in TSG SA WG1 can provide figures for the throughput that can be foreseen and the ratio between the Peak Throughput and the average is communicated in June for the next meeting. Currently the peak throughput per cell is foreseen in the uplink up to 50Mbits/s and 100 Mbits/s in the downlink.
  - It is proposed that the in the week of collocated WG meetings in Athens a joint meeting with TGS SA WG2 also takes place. A further one could be held in early July during the TSG SA WG2 meeting (see last slide on proposed schedule for SA WG2- RAN WGs meetings)

Work Plan for the Long term evolution for the UTRA and UTRAN

RAN #27, 9-11 March, Tokyo
- Work plan agreed
- TR Structure agreed
- 1st list of requirements

RAN#29, 21-23 Sept, Tallin
- Revised work plan
- RAN-CN functional split agreed
  - RAN-CN migration scenarios included

RAN#31, 8-10 March, China
- Revised work plan
- Working assumption on complete concept
  - Channel structure
  - MIMO scheme to be used for evaluation
  - Signalling procedures
  - Mobility details



RAN #28, 1-3 June, Quebec
- Revised Work plan
- Requirement TR approved
  - deployment scenarios included
  - requirements on migration scenarios included

RAN#30, 30 Nov-2 Dec, Malta
- Revised work plan
- RAN Architecture including RAN migration scenarios
- Radio Interface Protocol Architecture
- States and state transitions
- Physical Layer Basics
  - Multiple access scheme
  - Macro-diversity or not
  - RF Scenarios
  - Measurements

RAN#32, 31 May- 2 June, TBD
- Concept TR for approval
  - TR having Stage 2 level of details in order for smooth transition to Work Item phase
- WIs created and their time plan agreed

Project management

- The New TSG RAN met on March 11th 2005 for 2 hours.
  - The WGs Terms of reference have been reviewed and agreed. Some editorials modification were left to be reviewed by the different New WGs including TSG RAN WG5 (Mainly WG1, WG4 and WG5).
  - NEW TSG RAN WGs were allowed to start activities on LTE.
  - There was some discussion on the election dates for new WGs chairs. This needs clarification at the PCG level, concerns were expressed in TSG RAN on having a convenor for 2 meetings before elections can be held.This was seen as potential risk for the progress of the work. PCG is asked whether or not accelerated process can be out in place to have alla the WG election at their next metings.

TSG RAN Meeting Calendar

Meeting #	Date	Host	Location
28	1 - 3 June 2005	North American Friends of 3GPP	Quebec, Canada
29	21 - 23 September 2005	European Friends of 3GPP	Tallinn, Estonia
30	30 Nov. - 2 Dec. 2005	European Friends of 3GPP	Malta
31	08 – 10 March 2006		China
32	31 May - 2 Jun 2006		
33	20 - 22 Sep 2006		
34	29 Nov - 1 Dec 2006		

TSG RAN WG1 Meeting Calendar

Meeting #	Date	Host	Location
40bis	4-8 April 2005	Huawei	Beijing, China
41	09-13 May 2005	European Friends of 3GPP	Athens, Greece
42	29 Aug – 02 Sept 2005	European Friends of 3GPP	London, UK
43	07-11 November 2005	Samsung	Korea

TSG RAN WG4 Meeting Calendar

Meeting #	Date	Host	Location
AH MBMS/EDCH	4 – 6 April	ETSI	Sophia Antipolis, France
35	09-13 May 2005	European Friends of 3GPP	Athens, Greece
36	29 Aug – 02 Sept 2005	European Friends of 3GPP	London, UK
37	07-11 November 2005	Samsung	Korea

TSG RAN WG2 & WG3 Meeting Calendar

Meeting #	Date	Host	Location
47	09-13 May 2005	European Friends of 3GPP	Athens, Greece
48	29 Aug – 02 Sept 2005	European Friends of 3GPP	London, UK
49	07-11 November 2005	Samsung	Korea

RAN WG2 #46bis: 4-8 April 2005, Beijing, China, hosted by Huawei.

RAN WG2 # 48bis: 10 – 14 October 2005, Cannes, France, hosted by EF3.

TSG RAN WG5 Meeting Calendar

Meeting #	Date	Host	Location
27	25 - 29 Apr 2005	Aeroflex	Bath, UK
28	22 - 26 Aug 2005	European Friends of 3GPP	Berlin, Germany
29	7 – 11 November 2005	Samsung	Vancouver, Canada

Long Term Evolution Requirements

- Reduced cost per bit
  - Improve spectrum efficiency (e.g. 2-4 x Rel6)
  - Reduce cost of backhaul (transmission in UTRAN)
- Increased service provisioning – more services at lower cost with better user experience
  - Focus on delivery of services utilising ”IP”
  - Reduce setup time and round trip time
  - Increase the support of QoS for the various types of services (e.g. Voice over IP)
  - Increase “cell edge bitrate” whilst maintaining same site locations as deployed today
  - Increase peak bitrate (e.g. above 100Mbps DL and above 50Mbps UL)
  - Enhance the bitrate for MBMS (e.g. 1-3 Mbps)

Long Term Evolution Requirements

- Flexibility of use of existing and new frequency bands
  - Allow to deploy in wider and smaller bandwidths than 5 MHz (e.g. ranging from 1.25 to 20MHz)
  - Allow variable duplex technology within bands as well as between bands
  - Non-contiguous spectrum allocations to one UE should not be precluded
  - Should consider FDD/TDD convergence?
- Architecture and mobility
  - Need to consider UTRAN Evolution and UTRA Evolution at the same time aiming at simplifying the current architecture
  - Shall provide open interfaces to support Multi-vendor deployments
  - Consider robustness – no single point of failure
  - Support multi-RAT with resources controlled from the network
  - Support of seamless mobility to legacy systems as well as to other emerging systems including inter RAT Handovers and Service based RAT Selection
  - Maintain appropriate level of security
- Allow for reasonable terminal power consumption