TSG RAN Meeting #24
2nd-4th June, 2004
Seoul, Korea

Report from TSG RAN WG1 Chairman to TSG RAN#24

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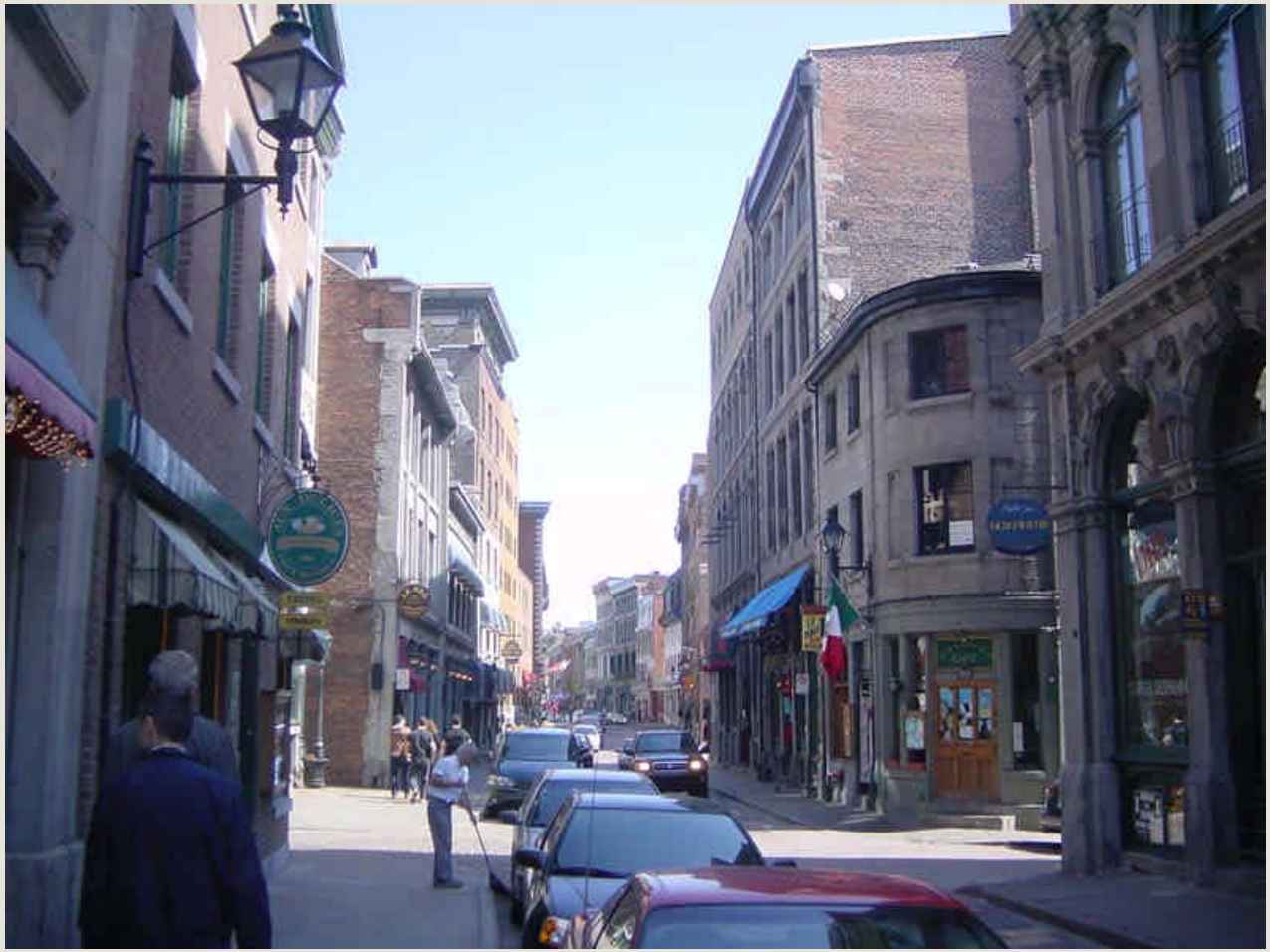
TSG RAN WG1 Chairman

RAN1#37

May 10-14, 2004

Montreal, Canada



Executive Summary

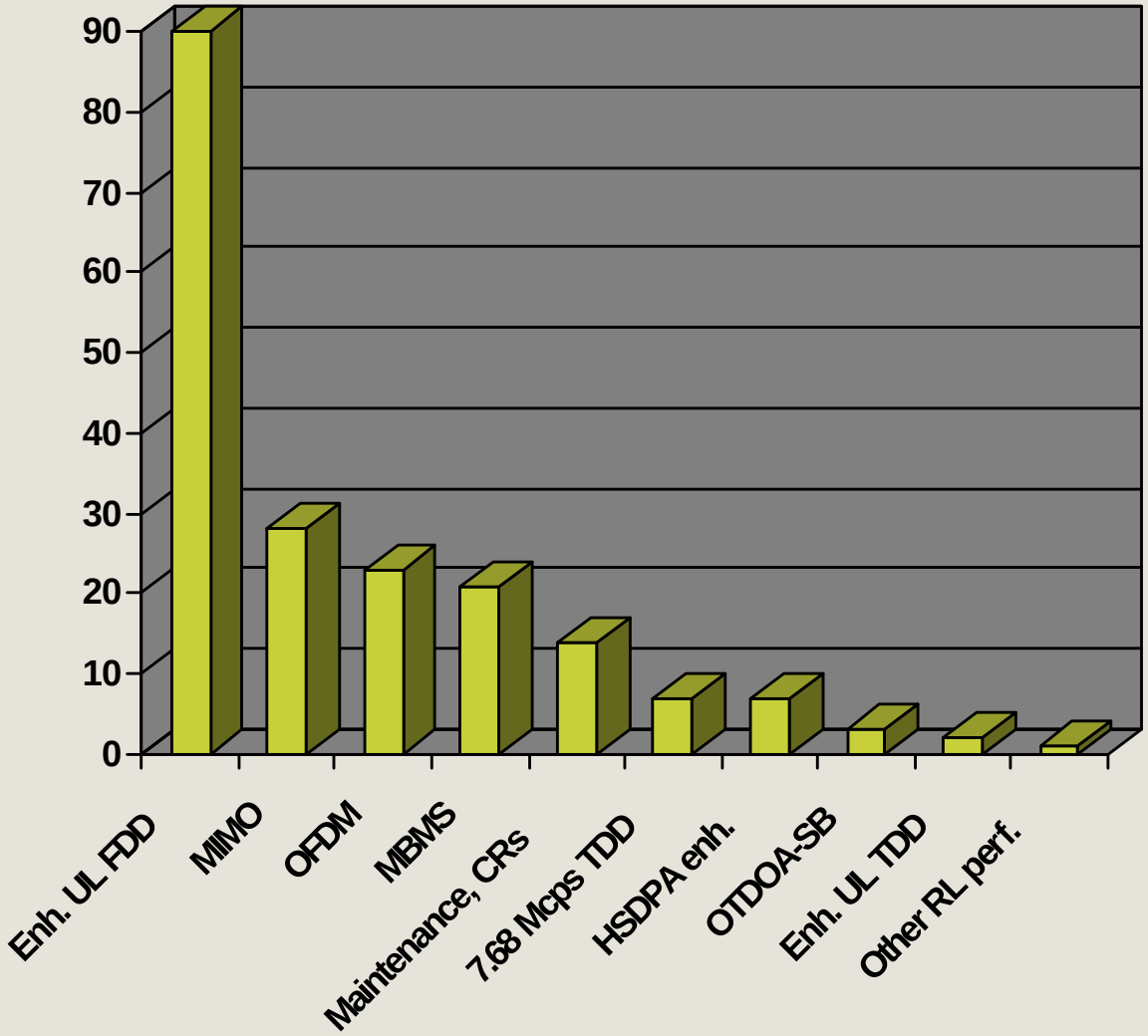
- Agreed change requests
  - 1 CR for Rel5 FDD
  - 2 CRs for Rel6 FDD, 2 CR Rel6 TDD (pending RAN3 CR approval)
- HSDPA reconfigurations – no change request agreed

✍ OFDM Study Item concluded

- Good progress on FDD Enhanced Uplink WI
  - Joint day with RAN2 on Enhanced Uplink
  - Most parts of L1/L2 interface architecture and HARQ agreed
  - Focus on Hybrid ARQ and E-DCH structure
- Approach for MBMS UE capability definition agreed

210 contributions submitted, around 95 delegates attended.

Contributions Statistics for RAN1#37



Change Requests

Agreed Change Requests

- Release 99, Release 4
  - No CRs for FDD/TDD
- Release 5
  - 25.212: HSDPA Channelisation Code Set Mapping
- Release 6
  - 25.211: Combination of S-CPICH and Close loop TX diverstiy
  - 25.211: Clarification for CPCH
  - 25.221/25.224: Addition of TSTD for S-CCPCH (3.84 Mcps)
    - Agreed in principle, corresponding RAN3 CRs to be done
    - Set of company CRs in RP-040235

Other Maintenance Issues

- HSDPA reconfigurations
  - Joint meeting with RAN2 concluded to leave the UE behaviour unspecified (no CR needed)
  - Contents of CR in RP-040123 was rejected in RAN1
- UE behaviour at HHO failure (GSM/Inter/Intra HO failure)
  - UE behaviour similar to the one described in L1 sync procedure A
  - Rel5 CR currently under discussion (company input to RAN)
- Timing maintained HHO
  - Joint meeting with RAN2 concluded that L1 sync procedure A applies, UL/DL timing is 1024 chip
- HSDPA RAB configurations
  - Joint meeting with RAN2 agreed email discussion until RAN1#38

Work Items & Study Items

WI/SI where RAN WG1 is the Leading Group (1/6)

- FDD Enhanced Uplink (See RP-040156)
  - Good start of the WI phase, focus on architectural issues
    - TR 25.808 started, capturing RAN1 agreements
    - Fruitful discussion at joint day with RAN2
      - Most parts of protocol architecture and transport channel structure agreed, basic HARQ operation incl. SHO agreed
    - Hybrid ARQ Soft Combining agreed
      - Incremental Redundancy with Chase Combining as sub-case
    - Basic TrCH coding chain agreed (further refinement needed)
    - Several assumptions on Physical Channel details agreed
    - Scheduling to be discussed at the June Ad Hoc
    - Major open issues
      - CCTrCH multiplexing, 2ms in addition to 10ms TTI, Scheduling, Signaling details

WI/SI where RAN WG1 is the Leading Group (2/6)

- OFDM (See RP-040161)
  - TR 25.892 (v2.0.0) presented to RAN for approval (RP-040221)
  - Text proposals on remaining open issues agreed covering:
    - Frequency re-use aspects
    - Mobility and handover aspects
    - Impact on UL and L2/L3
    - OFDM signaling channels
    - Compatibility with WCDMA carriers
    - Link level results for coloured inter-cell interference
    - System level results on NodeB impairment modelling
    - Cell search and synchronisation obtained from WCDMA
  - Conclusion of the Study Item was agreed and included in the TR.

WI/SI where RAN WG1 is the Leading Group (3/6)

- MIMO (See RP-040152)
  - Latest TR 25.876 (v1.5.0)
  - 5 contributions on Evaluation Methodology – discussion continues
  - 5 Revised text proposals from RAN1#37 agreed
    - PU2RC, CD-SIC for VBLAST, D-TxAA, S-PARC, CL MIMO with 4Tx/2Rx antennas
  - Generic description of MIMO schemes for further discussion
  - Many contributions on details of old and new MIMO proposals
    - For for discussion at coming meetings
  - It was clarified that there is no rush for introduction of new MIMO proposals, as long as the Evaluation Methodology is not agreed (which is the #1 priority at the moment, as discussed at RAN#23).

WI/SI where RAN WG1 is the Leading Group (4/6)

- Radio link performance enhancements (See RP-040159)
  - HSDPA enhancements
    - Latest TR 25.899 (v0.5.0) presented to RAN (RP-040222)
    - 2 text proposals on CQI enhancement agreed
    - 1 text proposal on PRE/POST impact on other WG agreed
    - Text proposal on conclusions agreed
  - Discussion on Fractional DPCH
    - Continued under the new WI for FDD code optimisation
    - Relation with Enhanced Uplink FDD will be kept in mind

WI/SI where RAN WG1 is the Leading Group (5/6)

- Improvements of interfrequency and intersystem measurements (See RP-040141)
  - No inputs.
- Higher chiprates for TDD (See RP-040162)
  - 7 text proposals agreed for inclusion in the TR
    - R99 link level results, dual mode UE complexity, impact on other WGs, impact on specifications, signaling impact, antenna systems, feasibility of chiprates even higher than 7.68 Mcps
  - R99 system level simulations not covered yet

WI/SI where RAN WG1 is the Leading Group (6/6)

- Uplink enhancements for UTRA TDD (See RP-040163)
  - Latest TR 25.804 (v0.2.0)
  - Two text proposals agreed

WI/SI where RAN WG1 is not the Leading Group

- MBMS (See also RP-040151)
  - Discussion on MICH false alarm probability
  - No complete proposals on MICH were presented for decision
  - Approach for miminum UE capability definition agreed
    - Capability expressed in terms of memory requirement (buffer)
      - Based on set of combinations of (Bitrate, Number of RL, TTI)
      - Relation to Soft Combining is FFS.
  - Discussion on Soft Combining feasibility and gains
  - Issues should be concluded at the Ad Hoc in June.

WI/SI where RAN WG1 is not the Leading Group

- UE positioning enhancements (See also RP-040149)
  - Concerns raised on complexity and feasibility aspects of Soft-IPDL
  - Concerns raised on prediction of performance with Soft-IPDL
  - No agreements were reached, except that real test results are needed to confirm the performance predictions

Review of WI Descriptions

- Optimisation of DL channelisation code utilisation (FDD)
  - Status report in RP-040145
  - Revised WID reviewed by RAN1 (RP-040237)
- Optimisation of DL channelisation code utilisation (TDD)
  - Status report in RP-040146
  - WID sent out on the email reflector for comments

RAN WG1 Meeting Schedule 2004/2005

Meeting	Date	Location	Host
Ad Hoc (Rel6)	21-24 June 2004	Cannes, France	European Friends of 3GPP
RAN1#38	16-20 August 2004	Prague, Czech Republic	European Friends of 3GPP
Ad Hoc (Rel6)	20-24 September 2004	Seoul, Korea (TBC)	TBC
RAN1#39	15-19 November 2004	TBD, Japan	TBD
RAN1#40	14-18 February 2005	TBD, USA	North American Friends of 3GPP
RAN1#41	09-13 May 2005	TBD, EU	TBD
RAN1#42	29 Aug – 02 Sept 2005	TBD, EU	TBD
RAN1#43	07-11 November 2005	TBD, Asia	TBD

All WG's plenaries will be co-located. 2005 meeting dates are *tentative* (except February).