TSG RAN#10 December 6-8, 2000 **Tdoc RP-00-0536**

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Source: TSG RAN WG1 Chairman

Report from TSG RAN WG1 chairman to TSG RAN#10

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Executive Summary

- **Release -99 issues need typically less than 1 day out of 4 days in the meetings**
- **Release 4 and 5 topics under discussions.**
- **Highest number of papers for High Speed Downlink Packet Access (HSDPA)**
- **For the following work items input provided to TSG RAN for Release 4 (TR)**
  - **DPCCH gating (as part of Terminal power saving features)**
  - **TDD Node B synch**
  - **DSCH power control improvement in SHO**
- **For 1.28 Mcps TDD no specific input, work on-going on working CRs**
- **Both last two meetings closed 1/2 day earlier than scheduled**

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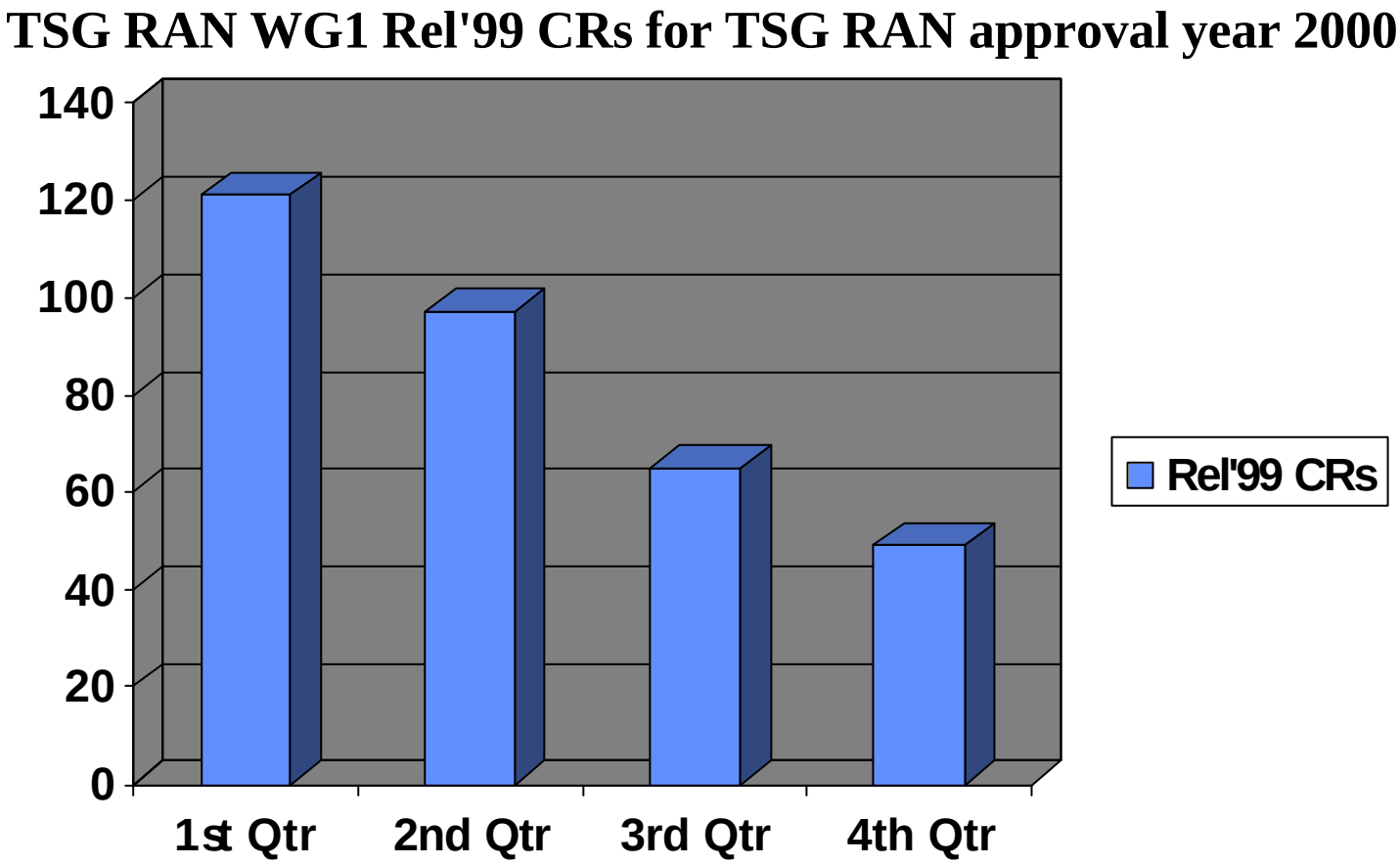
Release -99

WG1 CRs (REL-99) for RAN#9

- **TOTAL 49 (33/14 FDD/TDD) CRs for RAN#9 approval -> Release -99 only minor corrections**



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25.211 Physical Channels and Mapping of Transport Channels to Physical Channels (FDD)

25.212 Multiplexing and Channel coding (FDD)

- Editorial changes and small adjustments/corrections
- The bigger item was the moving of CSICH (CPCH Status Indication Channel) status information mapping from L3 to L1 specs (25.211). No functional change.
- On 25.201 no CRs.

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25.213 Spreading and Modulation (FDD)

25.214 Physical Layer Procedures (FDD)

- 25.213 1 CR on the use of secondary scrambling code
- 25.214 12 CRs
- RACH procedure and power control related issues
- As raised in TSG RAN WG1#15, but not concluded then, was the SSDT downlink quality measurement which was clarified in the informative annex in 25.214. (Which Node Bs should be considered in the DL

25.215 Measurements (FDD)

- **Clarification of some measurements, including RSSI and reference points based on the LSs from RAN WG4 on the issue**
- **The compressed mode pattern purpose as"other purposes" was removed based on the decision in the last TSG RAN.**

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25.221 - 25.225 TDD specifications

- **Many CRs just alignment with FDD**
- **TDD specific: PICH power (now as in FDD power offset is a higher layer parameter)**
- **Spreading factor (SF) in uplink with TFCI/TPC field fixed (TFCI/TPC duration constant in time domain, unknown SF causes detection problems)**
- **TDD open loop TPC related restrictions**

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RAN WG1 Technical reports (Rel'99)

- **TR 25.944 Multiplexing and channel coding examples two CRs provided.**
  - **One covers FDD and one TDD**

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UE capability for RAN WG2 TR 25.926

- **Minor parameter definition update approved based on the feedback from TSG RAN WG2 (LS indicated that it would be fine from WG2 point of view to do so) and this is submitted to TSG RAN from WG1**
- **For UE capability Release'99 the issue of first interleaver memory is still discussed whether there should be some limit on the maximum amount of repetition or not.**
  - Email discussion working solving the issue

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Beyond Release -99

Release 4 Progress on topics with WG1 main responsibility (1)

- **Terminal power saving features (DPCCH gating):**
- **RAN1 has concluded aspects such as power saving/interference reduction calculations**
- **RAN2 has not had time to deal with the issue since the last TSG RAN**
- **RAN4 view asked (with LS) look on the measurement aspects with RX gating, commented also later that other measurement aspects (if impact) would be useful checked by RAN4 as well**
- **The separate and more detailed status report is attached**

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Release 4 Progress on topics with WG1 main responsibility (2)

- **DSCH power control improvement in soft handover**
- **WG1 has updated the WG1 TR 25.841, WG3 issues have been removed**
- **WG2 has indicated that they shall need no TR on this topic as the change is minor**
- **WG3 has created TR on this, not yet finalised in WG3**
  - **WG3 comments were on the issue whether a existing IE should be extended or new one generated. WG3 preferred new IEs specific for this feature and TR will be updated accordingly**
- **Additionally there was a proposal related to this for the power control of the TFCI field in connection with this with split mode TFCI. WG1 will investigate and inform other WGs.**

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Release 4 Progress on topics with WG1 main responsibility (3)

- **TDD Node B synchronisation**
- **In general work is on schedule, the conclusions have been reached in WG1, see separate status report below**

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Release 4 Progress on topics with WG1 main responsibility (4)

- 1.28 Mcps (Low Chip Rate) UTRA TDD Physical Layer
- Work has continued on the working CRs
- Issues to work with still
  - l: Uplink synchronization
  - 2. Handover measurements for GSM for data rates above 32 kbits/s
- References: Latest versions of the working CRs are contained in WG1 Tdocs R1-00-1493 to R1-00-1496, for TS 25.221, TS 25.222, TS 25.223 and 25.224 respectively. (to be reviewed beginning of the next RAN1 and work continue on those)

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Release 4 Progress on topics with WG1 main responsibility (5)

- **Smart Antennas**
- **TR 25.842 was restructured**

- **Basically the proposal is to close this work item has all the means to support adaptive antennas are in place for both TDD modes thus (as well as FDD as stated)there is no for further work**
- **Midamble allocation schemes in TDD are common for both modes**
- **RAN WG1 Chairman's recommendation: WI to be closed.**

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Release 4/5 Progress on topics with impacts WG1 than have been discussed since RAN#9, (main responsibility not in WG1)

- These topics shall be reported by the leading WG (WG2), further discussion to take place when requested by WG2
- Positioning
  - Paper on the simulations TDD-IPDL presented and conclusions provided to TSG RAN2
  - Also simulation results on the proposal on position elements for FDD were reviewed and conclusions provided to TSG RAN2. Impact on WG1 specs not quite clear if adopted.

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Release 5 Progress on topics with WG1 main responsibility

- **Radio Link Performance Enhancements**
- **TSG RAN WG1 agreed to set the deadline for the conclusions for new TX diversity methods for TSG RAN#12.**
  - **Work has proceeded on the simulation parameters**
  - **If new methods are agreed, a TR will be created.**
- **Other topics discussed included**
  - **Pilot interference cancellation in the UE**
  - **Dynamic TFCI code word division in split mode**
    - **On this topic WG2/WG3 view needed is there need for more dynamic split possibilities in the physical layer coding.**

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Rel'4 Study Item: USTS

- **Uplink Synchronous Transmission.**
- **TSG RAN WG1 is working further on this topic and intends to have the study report completed by 03/01 for TSG RAN#11**
- **First draft was presented and will be revised for the next WG1 based on the comments. Items to be worked on are related to the complexity and operation in soft handover.**

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Rel'4 study item: High Speed Downlink Packet Access (HSDPA)

- Large number of simulation results reviewed
- WG1 working on the WG1 TR on this issue
- This was the largest topic with over 40 papers submitted in the two last WG1 meetings
  - Some of the paper were very detailed and addressed topics that will be discussed further in WG1 once the feasibility phase is over.
- On the feasibility side most of the relevant cases have been simulated already, reported throughput figures in the order of 2 Mbps per cell
  - Further work on the area of pico/indoor environment to see potential benefits of 64 QAM

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Annex 1. WG1 Meetings since TSG RAN#9

- **WG1#16 October 10-13 (Pusan, Korea, Host: Samsung & LGIC)**
- **WG1#17 November 21-24 (Stockholm, Sweden, Host: Ericsson)**

Annex 2. Coming TSG RAN WG1 meetings

- ***WG1#18 January 15-18 (Boston, USA, Host T1P1)***
- ***WG1#19 February 27- March 2 (Las Vegas, USA, Host Motorola)***
- ***potential physical HSDPA ad hoc in April***
- ***WG1#20 May 21-25, (Korea, Host Samsung)***
- ***WG1#21 June 26-29 (Paris, France, Host Nortel Networks) (tentative)***
- ***WG1#22 August 27-31 (Host needed)***
- ***WG1#23 October 8-12 (Host needed)***
- ***WG1#24 November 19-23 (Host needed)***