TSG RAN#9 September 20-22, 2000 **Tdoc RP-00-0339**

Oahu, Hawaji, USA

Source: TSG RAN WG1 Chairman

Agenda Item: 5.1.1 & 6

Report from TSG RAN WG1 chairman to TSG RAN#9

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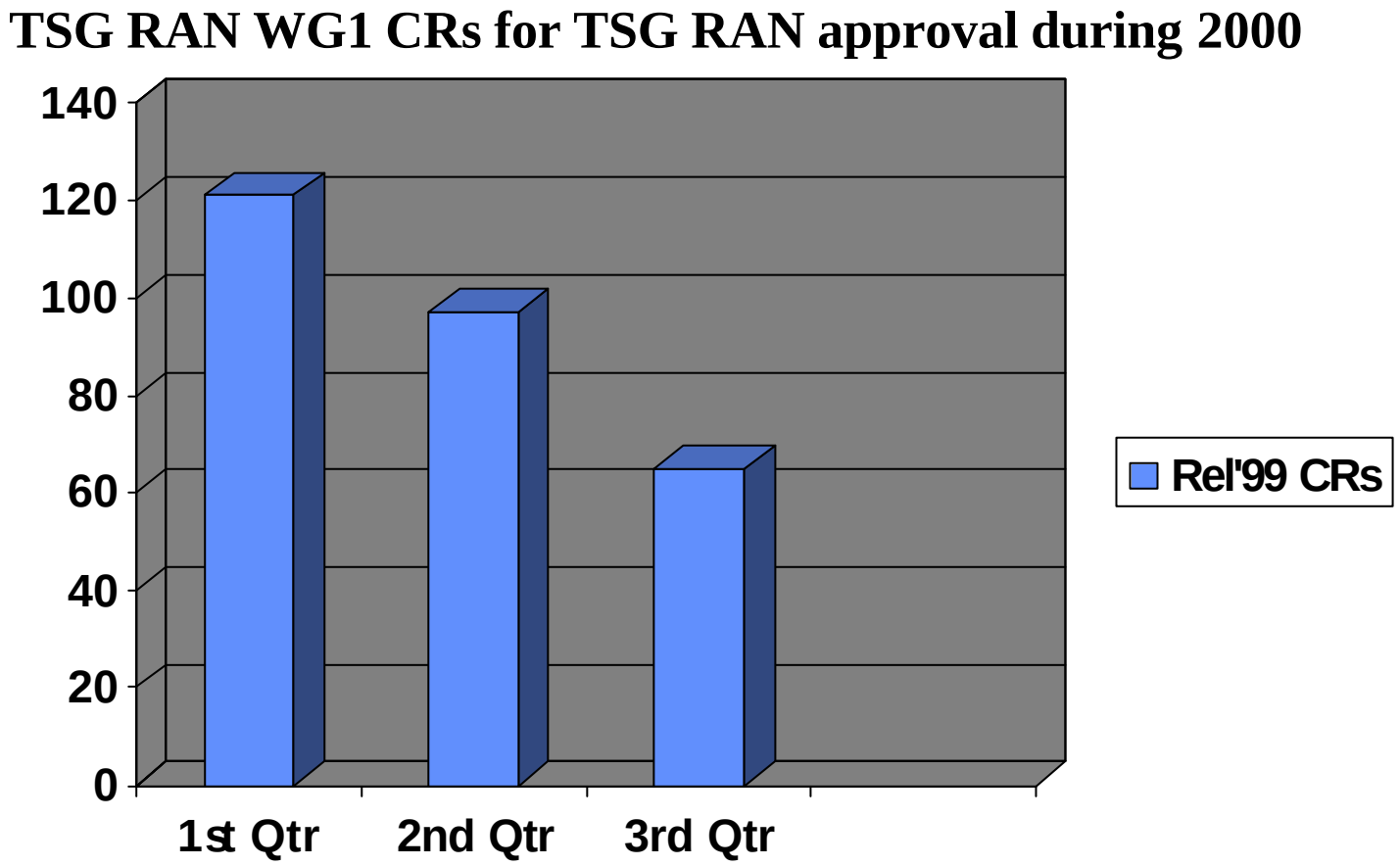
Executive Summary

- Release -99 issues use typically 1 day out of 4 days in the meetings
- Technical report on narrowband TDD completed, work to on draft CRs started
- Release 2000 discussed continued, the following features WG1 agreed to provide TR for TSG RAN and proceed onwards for Release 2000
  - DPCCH gating (as part of Terminal power saving features)
  - TDD Node B synch
  - DSCH power control improvement in SHO
  - 1.28 Mcps TDD
  - Adaptive antennas (TR provided, no specification changes identified yet)
  - Other topics either not agreed or no conclusions reached or explicitly agreed not being considered further for Release 2000.
- First time in history, WG1#14 closed 1/2 day erlier than scheduled

Release -99

WG1 CRs (REL-99) for RAN#9

- **TOTAL 65 (38/26 FDD/TDD) CRs for RAN#9 approval -> Release -99 work load reducing further**



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 issues with respect the CR for the section 7.7 in 25.211 was resolved and the pending CR 059 can be rejected. Another CR is provided instead.**
- **On 25.201 & 25.213 no CRs.**
- **CRs in Tdocs RP-00-0340 & RP-00-0341**

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25.214 Physical Layer Procedures (FDD)

- **As indicated as an open Item in TSG RAN#8, the UE TPC behavior in SHO was more exactly specified based on the feedback from RAN WG4**
- **Also inclusions of the "Delta_SIR" values to be used during compressed frames (was covered in other WGs previously)**
- **CRs in Tdoc RP-00-0342**

25.215 Measurements (FDD)

- **SIR measurement clarified (biased or unbiased)**
- **The handling of the compressed mode pattern designated as "other purposes" was discussed and LS provided to RAN WG2 to enquire whether that should be removed or not.**
- **CRs in Tdoc RP-00-0343**

25.221 Physical Channels and mapping of transport channels to physical channels (TDD)

- **The use of slot structures clarified, the current PRACH slot structure made as slot structure #3 and enabled to be used also for other channels besides PRACH**
  - **Reason for change: Handover in case of large cells requiring timing advance**
- **CRs in Tdoc RP-00-0344**

25.222 Multiplexing and Channel coding (TDD)
25.223 Spreading and Scrambling (TDD)

- **Minor adjustments**
- **CRs in Tdocs RP-00-0345 & RP-00-0346**

25.224 Physical Layer Procedures (TDD)

- **Power control in multislot cases clarified. Relationship between N uplink and M downlink slots as a higher layer signaling**
- **CRs in Tdoc RP-00-0347**

25.225 Measurements (TDD)

- **Clarifications and alignment with FDD**
- **Removal of DPCCH BER measurement as purpose related to softer handover and thus not relevant for TDD**
- **CRs in Tdoc RP-00-0348**

RAN WG1 Technical reports (Rel'99)

- **TR 25.944 Multiplexing and channel coding examples with minor, single CR provided.**
  - **No further work expected for this for Rel.99**
  - **Should be also valid as is for Release 2000 (to be confirmed)**
- **CRs in Tdoc RP-00-0349**

UE capability for RAN WG2 TR 25.926

- **Minor parameter definition suggested to TSG RAN WG2 to be done for TR 25.926.**
- **No pending topics at the moment for Release'99**

Beyond Release -99

Release 2000 Progress on topics with WG1 main responsibility (1)

- **Terminal power saving features:**
- **WG1 has agreed a method under this work item and the method is reflected in the WG1 TR 25.840.**
  - **The basic method agreed is the DPCCH gating in connection with DCH+DSCH where benefits identified as reported in the TR.**
  - **WG1 opinion was that the gating should be a UE capability parameter for those UEs that support DSCH.**
  - **LS of the topic was provided to other WGs to check few points across the WGs (with WG2 mainly)**
  - **From WG1 point of view other RAN WGs are expected to cover the issue and prepare the necessary CRs for their specifications**

Release 2000 Progress on topics with WG1 main responsibility (2)

- **Radio Link Performance Enhancements**
- **WG1 has agreed a method for DSCH power control improvement in soft handover under this study item and the method as well as methods that WG1 expects to study for later releases is reflected in the WG1 TR 25.841. The WI sheet for this particular topic is provided for RAN sourced as TSG RAN WG1**
- **The WG1 TR included the section identified for other WGs to be impacted and other WGs are invited to commend whether this single TR can cover their part already or do they want a TR of their own. (The impact is limited to only a few parameters on RRC & Iub/Iur)**

Release 2000 Progress on topics with WG1 main responsibility (3)

- **Radio Link Performance Enhancements (cont.)**
- **TSG RAN WG1 agreed not to proceed with new TX diversity methods for Release 2000.**
- **TSG RAN WG1 would see how to continue the studies for coming releases and would see the study item to allow studies for example for Release 2001 (or R5).**
- **On the proposal on softest handover no conclusions reached**
  - **Main issues was the gains vs. complexity issue**
- **Also WG1 did not agree modifications to the rate matching for convolutional coding under this study item**

Release 2000 Progress on topics with WG1 main responsibility (4)

- **TDD Node B synchronisation**
- **WG1 has agreed to use the method (over the air) based on PRACH method, as described in TR 25.836.**
- **Other WGs are expected to proceed with this, the remaining issues in WG1 should not have an impact to other WGs when the principles of the method has been agreed**
  - **WG2: not much work up to now**
  - **WG3:TR was initiated, further work was waiting for WG1 decision on air interface method**
- **A more detailed LS on this topic was provided to other RAN WGs**

Release 2000 Progress on topics with WG1 main responsibility (5)

- **Uplink Synchronous Transmission.**
- **TSG RAN WG1 is not able to provide a TR for this topic at this stage, but some further studies are needed for reaching conclusions on the proposed method.**
- **If acceptable from the schedule point of view, WG1 can make the decisions in TSG RAN WG1#16 (10/2000) whether to proceed with this item to Release 2000 or whether to postpone it to the Release 2001 (R5) as suggested by some companies**
  - **Areas where work to be done or concerns raised in WG1 included further performance analysis, USTS operation in soft handover, applicable scenarios and Node B hardware requirements.**

Release 2000 Progress on topics with WG1 main responsibility (6)

- 1.28 Mcps (Low Chip Rate) UTRA TDD Physical Layer
- TR 25.928 Provided for information
  - The remaining key items as reported for TSG RAN#8 were concluded for the TR in WG1#14
  - The TR contains still items marked with FFS, they are to be addressed in the specification phase.
- Work started on working CRs, latest version generated in WG1#15 and work to continue on those
- A paper by several operators suggested more co-existence studies to be done for narrowband TDD
- References: Latest versions of the working CRs are contained in WG1 Tdocs R1-00-1148 to R1-00-1151, for TS 25.221, TS 25.222, TS 25.223 and 25.224 respectively.

Release 2000 Progress on topics with WG1 main responsibility (7)

- **Smart Antennas**
- **TR 25.842 Provided for information**
  - **Work has started**
  - **Items discussed so far are supported by WG1 specifications**

Release 2000 Progress on topics with major impacts WG1 than have been discussed since ran#8, (main responsibility not in WG1)

- These topics shall be reported by the leading WG (WG2), further discussion to take place when requested by WG2
- Hybrid ARQ
  - Severe complexity concerns
- Improved cell FACH state
  - Discussion on the simulation results (TPC vs no TPC)
- Positioning
  - Paper on the TDD operation where the need for having idle periods as in FDD to cope with near-far situation was presented

High Speed Downlink Packet Access (HSDPA)

- **TSG RAN WG1 discussed the link and system level simulation assumptions and based on the contributions as well as on the received comments text for the TR in WG1 on HSDPA will be prepared**
  - **Also first preliminary simulation results reviewed**
- **WG1 expects to create a TR on this issue which will cover at least the agreed simulation parameters as well as link and system simulation results, summary of the conclusions to be provided to TSG RAN WG2 TR on the topic**
  - **Other items to be covered in WG1 TR is subject to co-ordination with TSG RAN WG2 as well as other RAN TSGs.**
- **TSG RAN WG4 was suggested to have a look on the higher order modulation issues from the implementation point of view**

Annex 1. WG1 Meetings since TSG RAN#8

- **WG1#14 July 4-7 Oulu, Finland, (Host: Nokia)**
- **WG1#15 August 22-25 Berlin, Germany, (Host: Siemens)**

Annex 2. Coming RAN WG1 meetings

- **WG1#16 October 10-13 (Pusan, Korea, Host: Samsung & LGIC)**
- **WG1#17 November 20-24* (Sweden, Host: Ericsson)**
- ***WG1#18 January 16-19 (Tentative USA, Host T1P1)***
- ***WG1#19 February 27- March 2 (Tentative),***
- ***WG1#20 Mid May (Tentative 5 days)***
- ***(potential physical ad hoc in April)***

- *** Note: Dates indicate the week, meeting duration 4 days**