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3GPP

Status report of RAN WG2 to RAN #10

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RAN WG2 Chairman

RP-000561

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RAN WG2 statistics

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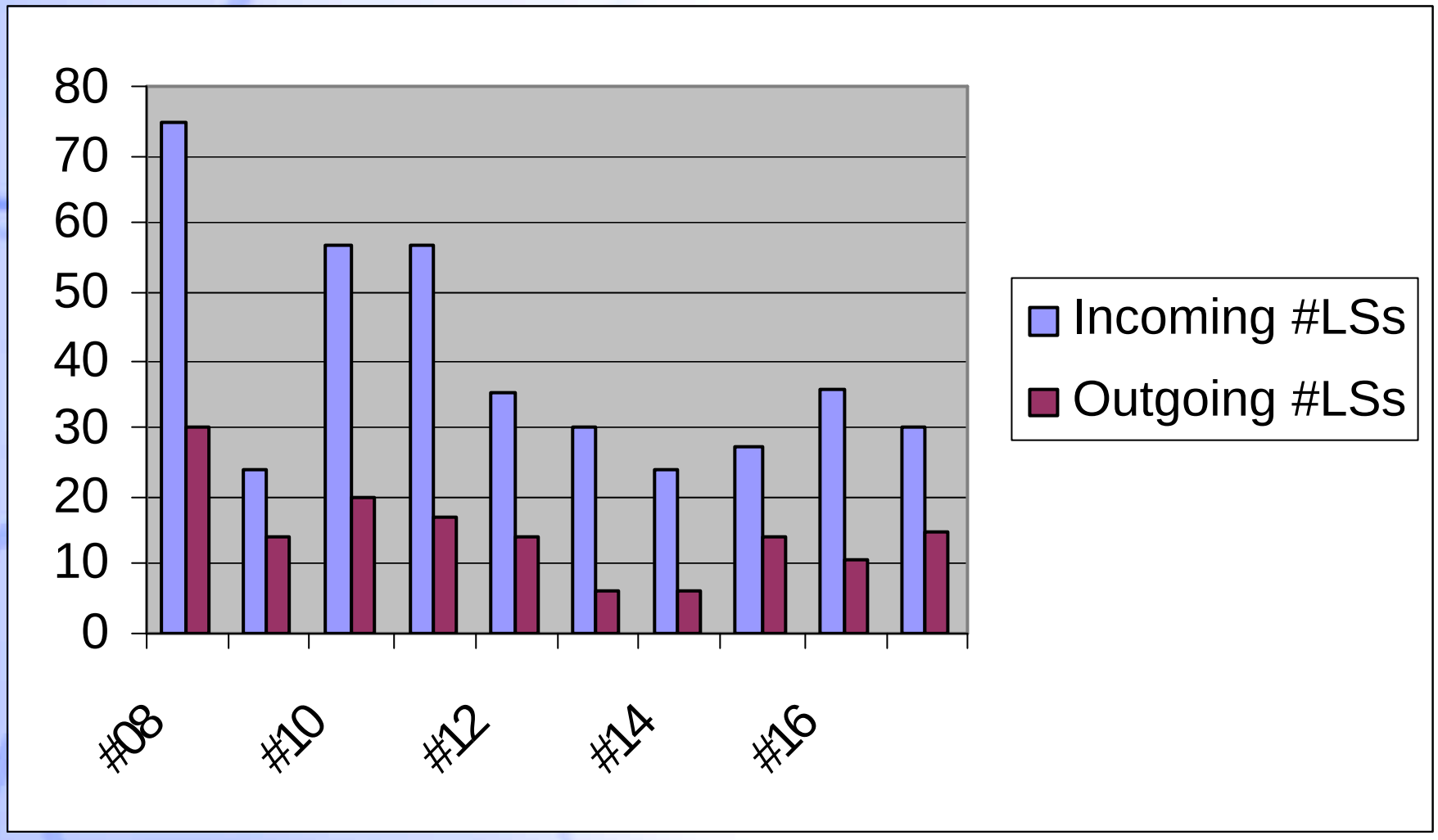
Meetings held over last 6 months

- **Between RAN8 and RAN9**
  - RAN WG2#14 in July
  - RAN WG2#15 in August
  - RRC ad-hoc meeting in August
- **Between RAN 9 and RAN10**
  - RRC ad-hoc meeting in September
  - RAN WG2#14 in October
  - RRC Taskforce in November
  - RAN WG2#15 in November
  - Joint R2/R4 in November

Liaison statements In/Out



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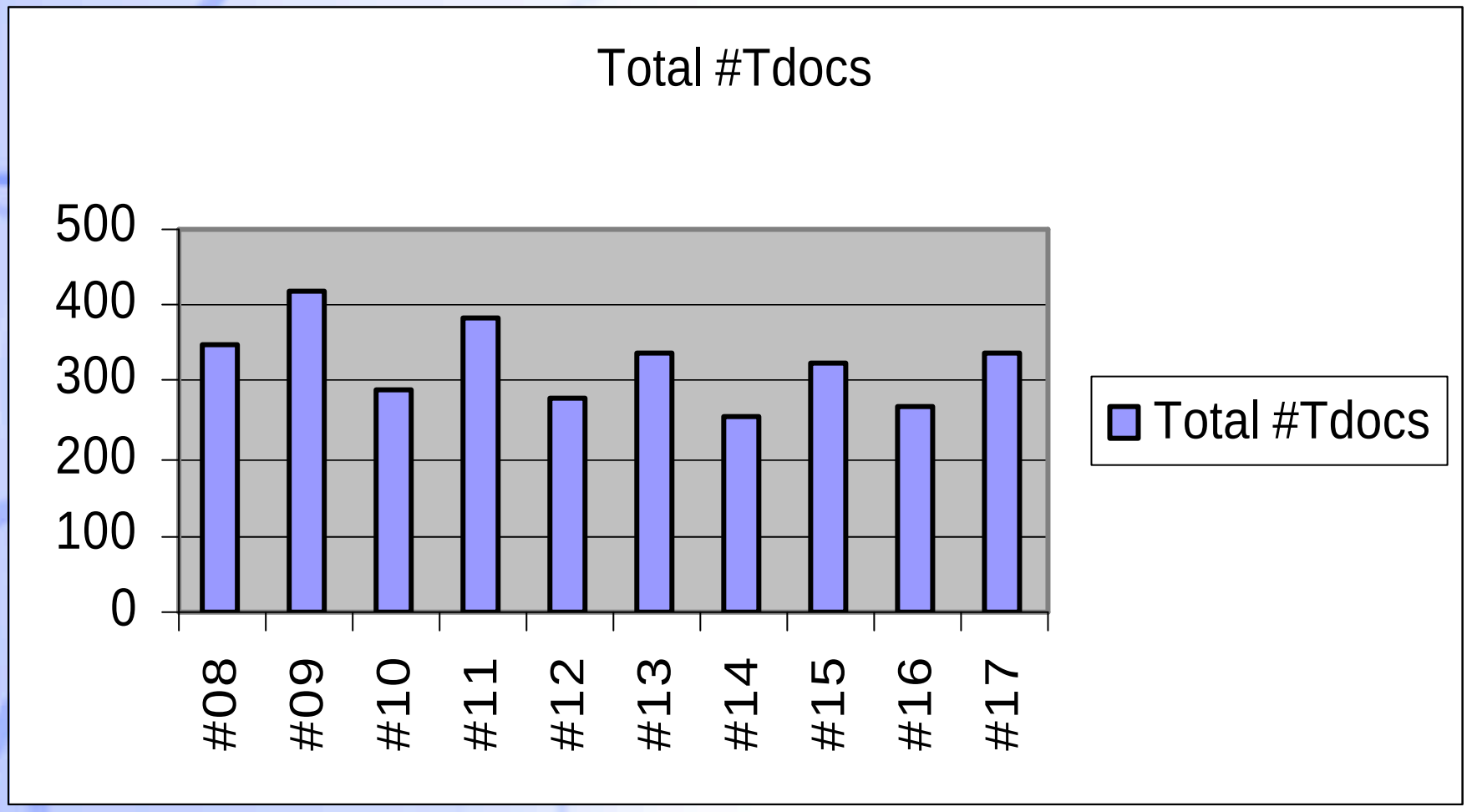
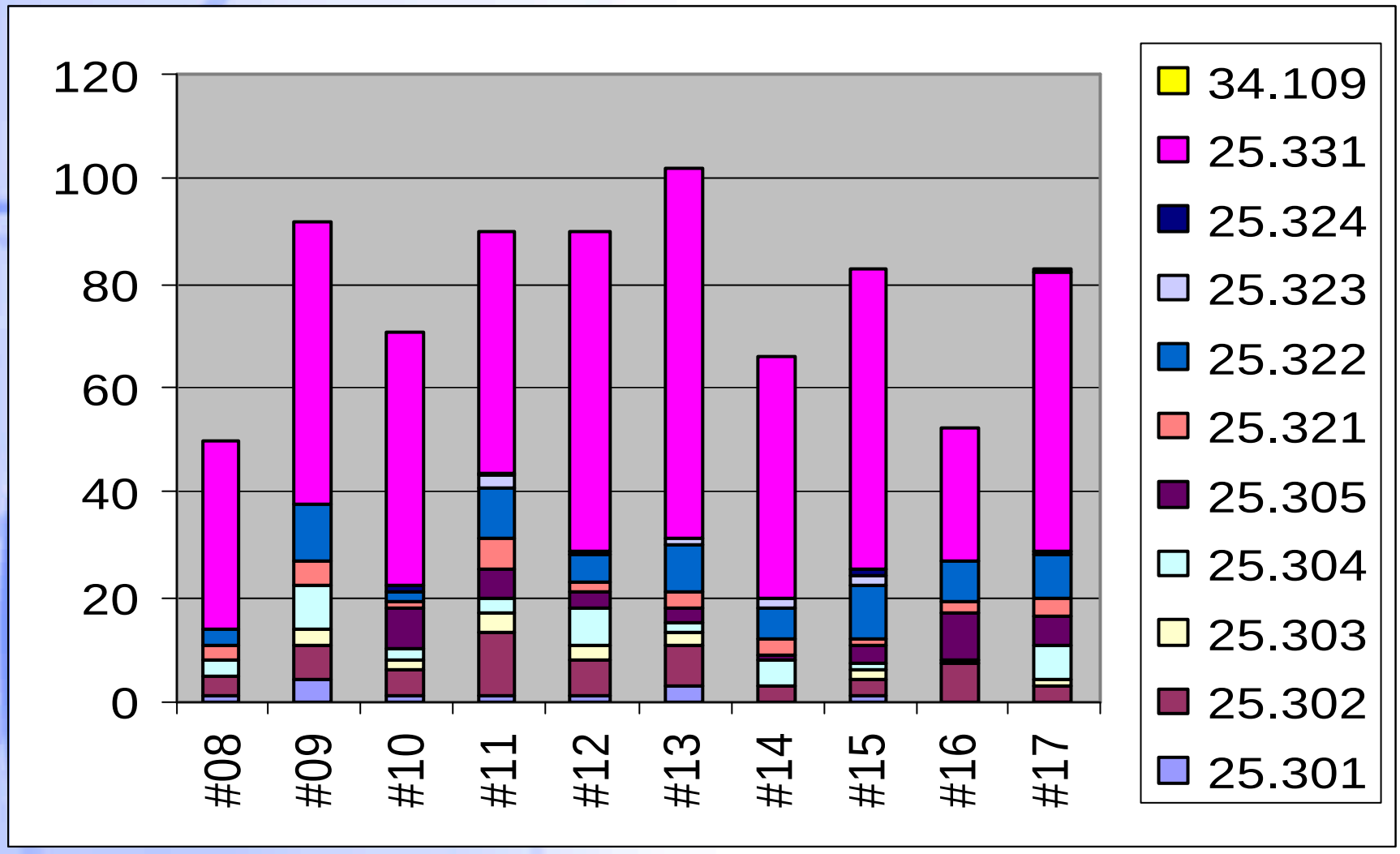
Total number of documents per meeting



Change Request statistics



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Release 99 activities

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General

- Many meetings, many working hours, but Dec 00 is an essential milestone for rel 99.
- 6 months action on RRC successfully completed (at the expense to hard work!) for RAN#10
- Finalisation of outstanding RLC decisions (performance, timers, RLC reset)
- Some rel4 progress, but little available time so far

Joint meetings

- **Two fruitful afternoon with RAN WG4**
  - Conclusions on all points treated:
    - Measurements in CELL_FACH state
    - Measurement report in RACH messages
    - PLMN selection
      - It was identified that issue spans many groups, and a Workshop may be required.
    - Cell reselection performance provided by RAN WG4 => Immediate Cell Evaluation was deleted
    - Documentation for RRC performance specifications
      - Layer 1 related procedures in R4 specifications
      - Non Layer 1 related procedures in 25.331

RLC

- Major work in defining RLC Timers and performances
- Behaviour at RLC reset was agreed at last RAN WG2#17
- Some corrections

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PDCP/MAC/BMC

- Not much, stable protocols for many meetings

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Cell selection/re-selection

- **Some corrections in RAN WG2#17**
  - Immediate Cell Evaluation was deleted
  - PLMN selection was modified after joint R2/R4 meeting

RRC history over last 6 months (1)

- **Over the last 6 months, RRC experts have met 7 times!!!**
  - 4 regular RAN WG2 meetings
  - 2 RRC ad-hoc, where a complete review (section per section) was performed
  - 1 RRC Taskforce meeting, where a smaller group of companies met to finalise agreements for CRs to be submitted to RAN WG2 #17

RRC history over last 6 months (2)

- **RRC in June was sufferring important issues:**
  - It was too often a descriptive text, instead of a specification
    - It was describing network behaviour, instead of UE behaviour
    - Many text was inherited from stage 2 descriptions
  - Two many procedures were actually the same, but were described separately
    - Was making document artificially big and complex
    - Was making UE implementation more complex
  - Two many parts were missing or FFS
  - And nevertheless, we had already written 400 CRs since approval!

RRC history over last 6 months (3)

- **From July to Oct, work in ad-hoc group was done to review all of RRC (section per section), and flag all remaining issues**
  - Result was a list of more than 200 open items!!!
- **After October meeting, a RRC Taskforce was formed with companies ready to contribute heavily**
  - RRC experts from the Taskforce (less than 10 people really active!), coming from various companies, worked together almost full time between RAN WG2 #16 and RAN WG2#17 so as to produce the « Taskforce » CRS. Experts met once beginning November.
  - Results was extremely positive, with major corrections of RRC. Work in one team by several companies has proven extremely efficient way of progressing issues.

RRC history over last 6 months (final)

- **Results of last 6 months of work can be considered a key accomplishment**
  - RRC is almost complete now, except some well identified issues (not many)
  - RRC is more simple for the UEs (and for readers;)
    - UE behaviour is clearly specified
    - Several identical procedures are now described together or merged, at the request of UE manufacturers
  - In short, RRC is what is should have been a long time ago, and was in dire need for this important work.

The chairman want to thank RAN WG2 for the hard work accomplished avec the last 6 months, and in particular the RRC experts have made a remarkable work and shown an excellent team spirit

Change Requests on specifications

- Refer to RP-000562 for complete list
- CRs are in ZIP files RP-000563 to RP-000579

Identified areas for next meetings

- **Measurements signalling may be simplified**
  - As per discussions in joint R2/R4
- **Optimisation of signalling for compressed mode**
  - As per request from RAN WG4
- **SRNS relocation vs. security**
  - E-mail discussion ongoing, some remaining difficulties
- **Activation time**
  - May not be a problem finally
- **Hard coded pre-configurations**
  - Request from operators. Principles were agreed, signalling and selection of parameters need to be finalised, in line with other WGs.
- **PLMN selection and re-selection**
  - Workshop?

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Release 00 activities

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Introduction

- Little time allowed in main meeting due to heavy workload on release 99, both for WI under RAN WG2 or under RAN WG1 (essentially Power Saving feature)
- More time expected from Jan, but schedule is extremely tight!

List of release 4 Work Items under RAN WG2

- Low chip rate TDD layer 2 and layer 3 protocol aspects
- Low Chip Rate TDD UE Radio Access Capability
- Radio access bearer support enhancement
- UE positioning enhancements
- Improved usage of downlink resource in FDD for CCTrCHs of dedicated type

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List of Feasibility Study under RAN WG2

- **High Speed Downlink Packet Access: No time was available**
- **Improved Common DL Channel for Cell-FACH State: Some progress, no conclusion yet**

A two days ad-hoc will be held on feasibility studies in January

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Low chip rate TDD

- **Two WIs:**
  - Low chip rate TDD layer 2 and layer 3 protocol aspects, TR 25.834
  - Low Chip Rate TDD UE Radio Access Capability, TR 25.843
- **Both Technical reports are stable and presented for approval to RAN Plenary in v2.0.0**
- **CRs should be written for March 01**

Radio access bearer support enhancement

- **Two main results are expected**
  - IP header compression (ROHC) for RT services (VoIP, streaming…)
  - IP header removal (speech optimised bearer) studied in TSG GERAN
- **TR 25.844 presented for information**
- **CRs, essentially on 25.331 and 25.323, to be written for March 01 and/or June 01.**

UE Positioning (UP) enhancements

- **Work done in UP ad-hoc that meets in parallel to RAN WG2**
- **Three proposals for enhancements in rel4**
  - OTDOA -IPDL for TDD : stable
  - Almanac corrections : under discussion
  - Positioning elements : discussions were held in RAN WG1, and have now to be resumed in UP ad-hoc
- **TR 25.847 v1.0.0 presented for information**
- **proposals not completed in March01 will be pushed to rel5**

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Improved usage of downlink resource in FDD for CCTrCHs of dedicated type

- **No activity**

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Power Saving feature (RAN WG1 WI)

- **RAN WG2 received TR from RAN WG1**
  - TR was presented
  - Questions were raised
  - Ongoing e-mail discussion to progress list of questions

Proposal on how to handle CRs for March on 25.331

- **On 25.331, many corrections will continue until March (after march, much smaller corrections are expected)**
- **Creating a version 4 of RRC in January, although possible, will mean extra work**
  - Duplications of all r99 CRs
  - Double implementation for MCC
- **Proposal is to write r4 CRs on 25.331 v3.5.0, agree on CRs in RAN March 01, but implement CRs only in June**
  - RAN Vice-Chairman to explain details

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Conclusions

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Chairman's concluding remarks

- RRC: Progress has been decisive. Action started 6 months ago on RRC reached a very essential milestone for RRC Dec 00.
- RLC: Probably last key decisions were taken, now completion is close.
- Other protocols are stable.
- Standard quality needs to be improved, but has already made significant progress.
- The Chairman wants to thank all companies for the hard work accomplished, in particular RRC experts, and for the excellent team spirit which has allowed to close this 6 months efforts successfully.

Chairman is proud of results achieved by RAN WG2 experts. Please sustain efforts and keep experts active in RAN WG2