3GPP TSG RAN#87 electronic
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AI: 5.2

RP-200005

Status Report RAN WG2 to TSG-RAN #87e

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RP-200005

The Leadership at RAN2 109e

The first RAN2 E-Meeting was held
- In the office
- At home
- At other peoples' homes
- In the attic
- At the bathroom
- With multiple PCs and screens
- At sleep time hours
- By 66h of Web Conference
- By 5500 emails in 250 disc
- By excellent support of MCC

It was very hectic and
- Everyone survived
- Noone caught Corona
- We have learned to appreciate face to face meetings

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Maintenance R15 and earlier

NR R15: NR SA, MR-DC All arch

- 35 Correction CRs agreed
- No Non Backwards Compatible (NBC) changes to ASN.1 agreed
- One Issue, for information: On UE capabilities, due to objections, R2 hasn't been able to converge on a solution for FR2 fall-backs, as requested in LS R4-1910239/R2-1912047. Expected continuation in Q2.

EUTRA R15 and earlier: NB-IoT, eMTC, LTE

- LTE – 9 Correction CRs agreed
- NB-IoT – 4 Correction CRs agreed
- eMTC – 1 Correction CR agreed
- No Non Backwards Compatible (NBC) changes to ASN.1 agreed

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R16 Completed Work Items

Items that are completed in R2

UE capabilities enhancements (RACS)	4 CRs
SRVCC 5G to 3G	4 CRs
LTE NAVIC	3 CRs
LTE high speed	2 CRs

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R16 Other Work Items

NR V2X WI	11 CRs
NR Mobility Enhancements WI	2 CRs
LTE Mobility Enhancements WI	7 CRs
IIOT WI	7 CRs
NR eMIMO WI	2 CRs
IAB	7 CRs, 1 TS 38340 BAP
DCCA enhancement	5 CRs
NR URLLC	3 CRs
Private Network Support	3 CRs
CLI	4 CRs

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R16 Other Work Items

NR-U	5 CRs
NR UE Power Saving	4 CRs
NR 2-Step RACH	3 CRs
NR SON MDT	3 CRs, 1 TS 38314 L2 meas
NR positioning	7 CRs
NR general	3 CRs
EUTRA eMTC	8 CRs
EUTRA NB-IoT	7 CRs
LTE DL MIMO enh	2 CRs
LTE 5G Terrestrial Broadcast	2 CRs

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TEI16 and Other

EUTRA TEI16	12 CRs
NR SA and MR-DC all arch TEI16	43 CRs
EUTRA Other (Parlos)	1 CR
NR Other (FLUS)	6 CRs

Notable

- CRs for IDC has been agreed

Detailed list of agreed CRs: See CR Packs

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TEI16 – Open items

Open Items TEI16, agreed to be progressed, but No CRs agreed at this meeting:

- Need for Gaps Signalling
- Secondary DRX group (LS sent to R1 cc R4)
- Multiple LTE CRS rate matching patterns
- 5G indicator
- Overheating
- Cell Reselection ENDC
- eDSS
- Missing reportAddNeighMeas in periodic measurement
- LCP mapping
- Under-reporting CSI-RS capabilities
- CSI-RS capabilities (LS sent to R1)
- one-slot periodic TRS configuration for FR1
- Potential Topic: User Plane Integrity protection

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R16 Other WIs

Open Items Other WIs, CRs not provided but in progress

- UL TX Switching – NR-FR1
- NR HST
- UL sharing vardup FDD
- R2 has also received LS request on a couple other topics, to be discussed from next meeting.

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R16 Overall Status

- Functionality wise, R16 in R2 is largely on-track
  - The plan to postpone stage-3 freeze was assumed at the meeting, e.g. giving more leeway to not include immature parts.
  - Some functionality was chosen to be excluded for now for some of the Wis due to immaturity, e.g. CPC in mobility WI, WUS for NB-IoT/MTC. Non-finished WIs generally assume 90-99% complete for R2. For details see WI Status Reports.
  - UE capabilities CRs are not provided for most Wis. Input from other group for L1/radio feature list is needed to do this work.
  - On the detailed level CRs are reasonably functionally complete.
- Quality
  - Ambition level was that CRs shall at least be usable as baseline.
  - For many WIs/CRs it is easy to find detailed issues/bugs, so quality wise, more work is needed (as expected)
- Readiness
  - From R2 perspective, R16 WIs are ready to start ASN.1 review.

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RAN2 109e e-Meeting at a glance

- Scope of R2 109e was VERY ambitious. ~90% of comparable face to face meeting scope
- Two weeks nominal meeting duration + optional email reviews before the meeting + short email approvals after the meeting - In total ~3 weeks of activities
- Web Conferences with the GoToWebinar tool
  - 3 parallel sessions, 33 TUs during two weeks (compare face 2 face meeting 53 TUs)
  - Session participation 50-200
- Email discussions
  - ~250 email discussions
  - ~5500 emails
- Procedure differences
  - Decision making both by Web Conference and by email.
  - Tdocs under an Agenda Items summarized, and summaries were treated rather than tdocs. However, R2 109e had lots of incoming email discussions, since November 2019, which is the “normal” kind of RAN2 summary.

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RAN2 109e Outcome and experiences

- Web Conferences - similar to face to face RAN2 meeting.
  - Good to directly treat both easy and contentious topics,
  - Good to get comments on summary papers, to confirm way forwards how to continue treatment for issues, i.e. how to continue by email,
  - i.e. Web Conferences worked very well and quite similar to face to face RAN2 meeting.
  - There were still some IT issues for some users.
- Summaries were found useful
  - Enabled treatment of input in many papers.
  - Summary recommendations mainly considered majority view, in order to identify “easy” and less easy agreements, according to instructions.
    - So consideration of other aspects than majority view needed inclusion in discussions. Concerns has been expressed that sometimes there might not have been sufficient time taken for that.

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RAN2 109e Outcome and experiences

- At-meeting Email discussions - worked ok.
  - Decisions by email, similar to how email decisions have previously been done after RAN2 meetings.
  - The process could be better described. There were some misunderstandings e.g. on what is a deadline.
  - Important to allow gradual convergence, and have a plan for conclusion, which worked ok, but could be further improved.
- Email discussions efficiency
  - For most topics email is significantly less efficient than on-line discussions, partly due to reply turnaround time.
- E-mail decision making was suspended during the weekend.
  - This was ok - important and good for a hectic meeting.
- Email discussions Turnaround time
  - For fairness and reasonable reply hours it is important to allow sufficient turnaround time for replies in email. R2 generally applied min 18h but usually 24h, which seemed ok.

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RAN2 109e Outcome and experiences

- Maintenance CRs
  - Had about two week treatment time, and most issues (also contentious ones) could be discussed for two weeks, a reasonable amount of time. Most treatment was by email. Outcome was good.
- Easy or less easy Agreements
  - There were instructions for R2 109e to identify and prioritize “easy agreements”. For most WIs it was additionally possible to go further and resolve a number of contentious or previously contentious issues, by Web Conferences.
- R16
  - The CR meeting of a release is usually very hectic. There were a lot of functional open issues input to the meeting.
  - The progress was very good, exceeding chair’s expectations by a lot.

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RAN2 109e Outcome and experiences

- Learning – Change needed - Load
  - The overall load ended up at too high levels, i.e. the meeting was too ambitious.
  - Too high load is not only a problem for persons, it also results in worse quality.
- Learning – Change needed - Time for CRs
  - Stage-3 issues fixing in the CRs for many Wis had to be cut short at the end of the meeting.
  - A longer concluding email phase would have been good. The plan that CR discussions go in parallel with other discussions didn't happen/didn't work for most Wis (maybe due to load, see above).

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Planning R16 and R17

- Current time plan for R16 ASN.1 freeze is proposed to be kept for now, no immediate reason to change. This can be revisited in June.
  - Currently Identified risk: Availability of stable UE capabilities / L1 feature list (needed in April by R2).
  - R2 chairman assumes that R16 ASN.1 freeze shall be handled as usual / as for other releases w.r.t. accepting/not accepting non-backwards compatible changes.
- R17 start
  - It seems not useful to initially treat R17 topics by email, so if anything starts it should be Face to Face or by Web Conference.
  - Need to be planned with RAN1.
  - Recommend R2 planned start of R17 in Q3 (unless there are more changes).

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RAN2 TUs from RAN#87e

TU allocation is not directly applicable to e-Meeting.

Proposal: RAN2 TU allocation is shifted one meeting, i.e. the TU allocation for May meeting
Is applied to August meeting etc.

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Thank you for your support last quarter

- Tero Henttonen (RAN2 VC)
- Sergio Parolari (RAN2 VC)
- Kyeongin Jeong (V2X session chair)
- Brian Martin (NB-IoT session chair)
- Emre Yavuz (MTC session chair)
- Nathan Tenny (Positioning session chair)
- Diana Pani (NR-U, NTN, 2-step RA, NR power saving session chair)
- Hu Nan (SON MDT session chair)
- Juha Korhonen (MCC support)

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