3GPP RAN 5G-ACIA Evaluations Week 3

February 22nd – 26th 2021

Source: Moderator (Ericsson)

Title: Review of provided simulation results and needed updates

Document for: Discussion, Decision

# 1 Introduction

AT RAN#89, the following was agreed in [RP-202069](https://protect2.fireeye.com/v1/url?k=41a5db26-1f051960-41a59bbd-86fc6812c361-73f443258ff773bf&q=1&e=bc078f84-983d-45f3-ab31-19e60d911036&u=https%3A%2F%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FTSG_RAN%2FTSGR_89e%2FDocs%2FRP-202069.zip) on providing evaluations for 5G-ACIA:

* Start an offline email-based activity to provide evaluation results for 5G-ACIA
* One company volunteers as moderator
  + Proposes a work plan to follow
  + Ericsson is willing do this
* Discussions are on the RAN1\_NR reflector
  + Email activity only during short periods (< week) distributed across the time allocated to the activity
  + No email activity in weeks before/during/after RAN1 meetings or RAN defined inactive periods
  + All companies should strive to limit email activity as much as possible
  + Outcome of the offline discussion will directly go to RAN without need for discussion in RAN1 nor need for LS from RAN1 to RAN
* Target completion by RAN#91
* At RAN#91, RAN will decide on a response LS to 5G-ACIA

The moderator made the following proposal on a timeline:

1. 12-16 October 2020
   * Discussion on which URLLC features to include in the evaluations and simulation assumptions
2. 14-18 December 2020
   * First round of simulation results
3. 22-26 February 2021
   * Second round of simulation results
4. 8-12 March 2021
   * Finalization of the report to RAN#91

During week 1, the simulation assumptions were agreed as captures in the document below:

[https://www.3gpp.org/ftp/tsg\_ran/TSG\_RAN/TSGR\_90e/Inbox/Drafts/5G-ACIA October/Agreements/Agreements week 1 5G-ACIA.docx](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_90e/Inbox/Drafts/5G-ACIA%20October/Agreements/Agreements%20week%201%205G-ACIA.docx)

For week 2, companies provided the first round of simulation results. The summary is provided here:

[https://www.3gpp.org/ftp/tsg\_ran/TSG\_RAN/TSGR\_91e/Inbox/Drafts/5G-ACIA%20December/Final Summary/5G-ACIA Week 2 - Final summary.docx](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20December/Final%20Summary/5G-ACIA%20Week%202%20-%20Final%20summary.docx)

For the third week, companies provided the second round of simulation results:

[https://www.3gpp.org/ftp/tsg\_ran/TSG\_RAN/TSGR\_91e/Inbox/Drafts/5G-ACIA February/Company Inputs/](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20December/Company%20Inputs)

The input contributions are also listed in the reference section.

In this contribution, review comments from other companies are collected for each input document.

# 2 Company Inputs

## 2.1 Ericsson

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/Ericsson%205G-ACIA%20Simulation%20Results%20Round2.zip).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.2 Huawei/HiSilicon

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/HwHiSi%20-%20Simulation%20results%20for%205G-ACIA%20in%20the%20second%20round.docx).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.3 Intel

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/INTEL%20-%205G-ACIA%20LS%20-%20Phase%203%20inputs%20v0.docx).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.4 Nokia

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/NOKIA%20-%205G-ACIA%20Final%20round%20of%20simulation%20results.docx).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.5 Qualcomm

Contribution links for [FR1](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/QUALCOMM-5G-ACIA_URLLC_simulation_results_2nd_round_FR1.docx) and [FR2](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/Qualcomm5G-ACIA_URLLCsimulationResultsRound1_FR2_version1.docx).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.6 vivo

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/vivo%20-%205G-ACIA%202nd%20round%20URLLC%20evaluation%20results.zip).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

## 2.7 ZTE

[Contribution link](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/ZTE-5G-ACIA%20evaluations%20-%202nd%20round%20of%20simulation%20results.docx).

Other companies can provide questions and comments in the table below:

|  |  |
| --- | --- |
| Company | Questions and comments |
|  |  |

# 3 Conclusions

# References

1. [RP-202069](https://protect2.fireeye.com/v1/url?k=41a5db26-1f051960-41a59bbd-86fc6812c361-73f443258ff773bf&q=1&e=bc078f84-983d-45f3-ab31-19e60d911036&u=https%3A%2F%2Fwww.3gpp.org%2Fftp%2Ftsg_ran%2FTSG_RAN%2FTSGR_89e%2FDocs%2FRP-202069.zip), “Way forward on RAN work for 5G ACIA requested simulations“, Ericsson
2. “[Simulation Results for 5G-ACIA (Second round)](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/Ericsson%205G-ACIA%20Simulation%20Results%20Round2.zip)”, Ericsson
3. “[Simulation results for 5G-ACIA in the second round](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/HwHiSi%20-%20Simulation%20results%20for%205G-ACIA%20in%20the%20second%20round.docx) Huawei, HiSilicon
4. “[5G-ACIA LS – Phase 3 input](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/INTEL%20-%205G-ACIA%20LS%20-%20Phase%203%20inputs%20v0.docx)”, Intel Corporation
5. “[Final round of simulation results for 5G-ACIA evaluation](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/NOKIA%20-%205G-ACIA%20Final%20round%20of%20simulation%20results.docx)”, Nokia, Nokia Shanghai Bell
6. “[Second round of FR1 simulation results for 5G ACIA URLLC LS response](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/QUALCOMM-5G-ACIA_URLLC_simulation_results_2nd_round_FR1.docx)”, Qualcomm CDMA Technologies
7. “[Simulation Assumptions and URLLC Performance Evaluations for 5G-ACIA Performance Evaluation Round 1](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/Qualcomm5G-ACIA_URLLCsimulationResultsRound1_FR2_version1.docx)(FR2)”, Qualcomm CDMA Technologies
8. “[5G-ACIA 2nd round URLLC evaluation results](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/vivo%20-%205G-ACIA%202nd%20round%20URLLC%20evaluation%20results.zip)”, vivo
9. “[5G-ACIA evaluations - 2nd round of simulation results](https://www.3gpp.org/ftp/tsg_ran/TSG_RAN/TSGR_91e/Inbox/Drafts/5G-ACIA%20February/Company%20Inputs/ZTE-5G-ACIA%20evaluations%20-%202nd%20round%20of%20simulation%20results.docx)”, ZTE