

CB#77_NTN_General - Version 0.0.5
RAN3

3GPP TSG RAN WG3 Meeting # 112-e R3-212696

e-meeting, 17-28th May 2021

Title: CB#77_NTN_General

Source: Thales (moderator)

Type: discussion

Document for: Agreement

Agenda Item: 20.1

Work Item: NR_NTN_solutions: Solutions for NR to support non-terrestrial networks (NTN)

1 Introduction

This document aims at discussing and agree on general assumptions to be considered during the Rel-17 WI NR_NTN_solutions.

Hereunder is recalled the description of the email discussion as defined by the RAN3 chair in its notes:

CB: # 77_NTN_General

- (HW)

Section 4.X: remove the Editor Note related to figure 4.x-1

Section 4.X: remove “In this release” in description of transparent NTN payload; clarify the connectivity supported by the NTN payload

Remove sub-clauses 16.x.4.3 and 16.x.4.4

- Chair: endorse 1497,1486,1487,1488 as BL; if agreeable, revise 2244 as needed and put it up for agreement

(Thales - moderator)

Summary of offline disc

2 For the Chairman's Notes

Propose the following:

1) R3-212244 is agreed. It proposes to

- Remove the Editor Note related to figure 4.x-1 in section 4.x of draft BL CR 38.300

- Remove the “In this realise” in NTN payload transparently description and clarify the connectivity supported by the NTN payload in section 4.x of draft BL CR 38.300

- Remove the sub-clauses “operations” and “procedures” in section 16.x “switch-over” of draft BL CR 38.300

2) draft CR 38.413 (R3-211487) is endorsed

draft CR 38.423 (R3-211488) is endorsed

4) draft CR 38.410 (R3-211486) is endorsed

Propose to capture the following:

3 1st round discussion

3.1 CR 38.300

R3-211497 refers to the endorsed stg2 BL CR at RAN3#111-e. Based on the outcomes of the discussion, the stg2 BL CR in R3-211497 will be revised and submitted to agreement.

Question 3.1.1: Do you agree to remove the Editor Note related to figure 4.x-1 in section 4.x of draft BL CR 38.300 (R3-212244) ?

Feedback Form 1: Question 3.1.1

1 – THALES Agree
2 – CATT Agree
3 – Nokia Corporation Agree
4 – Huawei Tech.(UK) Co.. Ltd Agree
5 – Ericsson LM agree

6 – Qualcomm Technologies Int Agree
7 – ZTE Corporation Agree
8 – China Unicom Agree
9 – Fraunhofer HHI Agree
10 – China Telecom Corporation Ltd. Agree

=> Moderator suggestion: remove the Editor Note related to figure 4.x-1 in section 4.x of draft BL CR 38.300 (R3-212244)

Question 3.1.2: Do you agree to remove the “In this realise” in NTN payload transparently description and clarify the connectivity supported by the NTN payload in section 4.x of draft BL CR 38.300 (R3-212244) ?

Feedback Form 2: Question 3.1.2

1 – THALES Agree
2 – CATT Agree but, The section 4.x is only applied for NTN transparent payload case, maybe the regenerative payload will be supported in the future release. To be future proof , maybe it’s better to change the title of 4.x to ”4.x Non-Terrestrial Networks with transparent payload”, and corresponding changes to the texts in this session may be needed.
3 – Nokia Corporation Agree. For CATT comments, this may need further analysis, since some text in this section may also apply to regenerative payload.
4 – Huawei Tech.(UK) Co.. Ltd Agree On CATT, well we will need anyway a overall NTN section ... so we can manage in time with text proposal when other aspects will be introduce ...

<p>5 – Ericsson LM</p> <p>agree, current structure of BL CR/TP is fine and extendable for future releases, dont see any issue</p>
<p>6 – Qualcomm Technologies Int</p> <p>Stage 2 will be further double checked for consistency in the coming months but proposed change seems ok.</p>
<p>7 – ZTE Corporation</p> <p>Agree. Share the view with majority, the issue raised by CATT could be considered and fixed in the future, at least, no issue exists in Rel-17.</p>
<p>8 – China Unicom</p> <p>Agree with the stage 2 description in the draft BLCR.</p>
<p>9 – Fraunhofer HHI</p> <p>Agree</p>
<p>10 – China Telecom Corporation Ltd.</p> <p>Agree, and also fine to CATT’s suggestion.</p>

=> Moderator suggestions:

Remove the “In this realise” in NTN payload transparently description and clarify the connectivity supported by the NTN payload in section 4.x of draft BL CR 38.300 (R3-212244)

Section 4.x should apply to all NTN scenarios. Additional text may be provided later for this section when other aspects such as regenerative payload will be introduce ...

Question 3.1.3: Do you agree to remove the sub-clauses “operations” and “procedures” in section 16.x “switch-over” of draft BL CR 38.300 (R3-212244) ?

Feedback Form 3: Question 3.1.3

<p>1 – THALES</p> <p>Agree. This may be re-introduced if neede, with a text proposal in the future</p>
<p>2 – CATT</p> <p>Agree, could be add later with details if needed.</p> <p>Furthermore, should we change the title of 16.x.4 to ”Feeder Link Switch over”? the ”switch over” is not so clear, which may cause the confusion.</p>
<p>3 – Nokia Corporation</p> <p>agree</p>

<p>4 – Huawei Tech.(UK) Co.. Ltd</p> <p>Agree.</p> <p>If there is contribution endorsed at this meeting with the re-introduction of the section, we can manage this after the meeting with all TP merger exercise</p> <p>The proposal of CATT could be either decide online either included in the feeder link CB</p>
<p>5 – Ericsson LM</p> <p>agree</p>
<p>6 – Qualcomm Technologies Int</p> <p>Fine, we are usually quite flexible with section structure as needed right until the last meeting</p>
<p>7 – ZTE Corporation</p> <p>Agree</p>
<p>8 – China Unicom</p> <p>Agree</p>
<p>9 – Fraunhofer HHI</p> <p>Agree</p>
<p>10 – China Telecom Corporation Ltd.</p> <p>Agree</p>

=> Moderator suggestion: remove the sub-clauses “operations” and “procedures” in section 16.x “switch-over” of draft BL CR 38.300 (R3-212244)

3.2 CR 38.413

Question 3.2.1: Do you agree to add explicit access restriction for all types of NR RATs based on satellite constellations, i.e. NR(LEO), NR(MEO), NR(GEO) and NR(OTHERSAT) in draft CR 38.413 (R3-211487) ?

Feedback Form 4: Question 3.2.1

<p>1 – THALES</p> <p>Agree</p>
<p>2 – CATT</p> <p>Agree</p>
<p>3 – Nokia Corporation</p>

agree
4 – Huawei Tech.(UK) Co.. Ltd It is a BL CR re-submission for the meeting, should be Endorsed
5 – Ericsson LM dont understand the question: is there any proposal to change this part of the BL CR?
6 – Qualcomm Technologies Int This is a BL, nothing to agree unless there are issues / errors, as far as I can see, we can endorse (no change)
7 – ZTE Corporation Agree to endorse this BL CR.
8 – China Unicom Agree to endorse the BL CR.
9 – Fraunhofer HHI Agree
10 – China Telecom Corporation Ltd. Agree to endorse the BL CR.

=> Moderator suggestion: draft CR 38.413 (R3-211487) is endorsed

3.3 CR 38.423

Question 3.3.1: Do you agree to add explicit access restriction for all types of NR RATs based on satellite constellations, i.e. NR(LEO), NR(MEO), NR(GEO) and NR(OTHERSAT) in draft CR 38.423 (R3-211488) ?

Feedback Form 5: Question 3.3.1

1 – THALES Agree
2 – CATT Agree
3 – Nokia Corporation agree

<p>4 – Huawei Tech.(UK) Co.. Ltd</p> <p>It is a BL CR re-submission for the meeting, should be Endorsed</p>
<p>5 – Ericsson LM</p> <p>dont understand the question: is there any proposal to change this part of the BL CR?</p>
<p>6 – Qualcomm Technologies Int</p> <p>see above - endorse CR as it stands, nothing to agree</p>
<p>7 – ZTE Corporation</p> <p>Agree to endorse this BL CR.</p>
<p>8 – China Unicom</p> <p>Agree to endorse the BL CR.</p>
<p>9 – Fraunhofer HHI</p> <p>Agree</p>
<p>10 – China Telecom Corporation Ltd.</p> <p>Agree to endorse the BL CR.</p>

=> Moderator suggestion: draft CR 38.423 (R3-211488) is endorsed

3.4 CR 38.410

Question 3.4.1: Do you agree to Specify that RAN may optionally take into account UE location information when determining the AMF in draft CR 38.410 (R3-211486) ?

Feedback Form 6: Question 3.4.1

<p>1 – THALES</p> <p>Agree</p>
<p>2 – CATT</p> <p>Agree</p>
<p>3 – Nokia Corporation</p> <p>agree</p>
<p>4 – Huawei Tech.(UK) Co.. Ltd</p> <p>It is a BL CR re-submission for the meeting, should be Endorsed</p>

<p>5 – Ericsson LM</p> <p>dont understand the question: is there any proposal to change this part of the BL CR?</p>
<p>6 – Qualcomm Technologies Int</p> <p>and same comment as above</p>
<p>7 – ZTE Corporation</p> <p>Agree to endorse this BL CR.</p>
<p>8 – China Unicom</p> <p>Agree to endorse the BL CR.</p>
<p>9 – Fraunhofer HHI</p> <p>Agree</p>
<p>10 – China Telecom Corporation Ltd.</p> <p>Agree to endorse the BL CR.</p>

=> Moderator suggestion: draft CR 38.410 (R3-211486) is endorsed

3.5 References

[1] R3-211497 “Support Non-Terrestrial Networks” Huawei, Thales, Ericsson, ZTE, Qualcomm Incorporated (draft CR 38.300)

[2] R3-211486 “Clarification of NAS Node Selection Function for NTN nodes providing access over multiple countries”, Qualcomm Incorporated, Nokia, Nokia Shanghai Bell, Huawei (draft CR 38.410)

[3] R3-211487 “Support of NTN RAT identification and NTN RAT restrictions” Qualcomm Incorporated, Huawei, Thales, Ericsson, Nokia, Nokia Shanghai Bell, CATT (draft CR 38.413)

[4] R3-211488 “Support of NTN RAT identification and NTN RAT restrictions”, Qualcomm Incorporated, Huawei, Thales, Ericsson, Nokia, Nokia Shanghai Bell, CATT (draft CR 38.423)

[5] R3-212244 “(TP for BL CR TS 38.300) NTN Stage 2 clean-up” Huawei