**3GPP TSG-RAN WG2 #111-e R2-200xxx**

Online, August 17th - 28th, 2020

**Agenda Item: 6.1.3**

**Source: CMCC**

**Title: [AT111-e][022][NR16] Summary for Early Implementation**

**Document for: Discussion and decision**

# 1 Introduction

This document is for the following offline discussion, particularly for topics in 6.1.3:

* [AT111-e][022][NR16] Early Implementation (CMCC)

 Scope: Treat R2-2008102, R2-2008103, R2-2006716, R2-2007231

 Expected Outcome: Agreed CR 38331

 Deadline: CR Agreed by EOM, Deadline for comments 1 day earlier, or as set by rapporteur

This contribution is a summary of 6.1.3 TS 38.331 for early implementation. There are 5 contributions [1-5], including proposals of early implementation in NR and corresponding CRs. This summary is aimed to provide conclusion and agreed 38.331 CR. And please find and review the draft CR in the box (022).

# 2 Discussion

## 2.0 Contact list of delegates

To make it easier to find the correct contact delegate in each company for potential follow-up questions, the rapporteur encourages the delegates who provide input to provide their contact information in this table:

|  |  |
| --- | --- |
| Company | Delegate contact |
| CMCC | Li Chai (chaili@chinamobile.com) |
| Huawei, HiSilicon | Yang Zhao (zhaoyang@huawei.com) |
| Telecom Italia | Damiano Rapone (damiano.rapone@telecomitalia.it) |

|  |  |
| --- | --- |
| Nokia | amaanat.ali@nokia.com |
| Ericsson | Mattias Bergström (mattias.a.bergstrom@ericsson.com) |

|  |  |
| --- | --- |
| CATT | Erlin Zeng (erlin.zeng@catt.cn) |
| Futurewei | Hao Bi (hao.bi@futurewei.com) |
| OPPO | duzhongda@oppo.com |
| vivo | kimba@vivo.com |
| Qualcomm Incorporated | Masato Kitazoe (mkitazoe [at]qti.qualcomm.com) |
| ZTE | YuanGao (gao.yuan66@zte.com.cn) |
| Samsung | Himke van der Velde (himke.vandervelde@samsung.com) |
| Intel | richard.c.burbidge@intel.com |

## 2.1 Potential Agreements

The following agreements are proposed based on the contributions [1-5]:

**Proposal 1: Considering to apply the existing rule to realize early release UE implementation of R16 enhanced features, adding the candidate features after the approval into the Annex G is regarded as a preferred way. The evaluation of whether a feature is to be early implementable is to be decided on a case-by-case basis, e.g. where there is a strong industry demand.**

**Question 1: Do you agree with Proposal 1?**

|  |  |  |
| --- | --- | --- |
| Company | YES/NO | Comment / alternative proposal |
| CMCC | YES |  |
| Huawei, HiSilicon | Yes |  |
| Telecom Italia | Yes | The CR coversheet should always contain the ‘magic sentence’ for a feature which has been decided to be early implementable (this is in line with P3 in R2-2006716) |
| Nokia | Yes |  |
| Ericsson | Yes |  |
| CATT | Yes |  |
| Futurewei | Yes |  |
| vivo | Yes |  |
| Qualcomm Incorporated | Yes |  |
| ZTE | Yes |  |
| Samsung | Yes |  |
| Intel | Yes | While agreeing with the proposal we would like to stress the final point relating to strong industry demand. For new features, we should only include the early implementation sentence on the CR coversheet and add an entry 38.331 Annex C in exceptional circumstances based on strong industry demand. We would like to avoid a situation where RAN2 (and possibly RAN) have to routinely discuss this question for every new feature.Note that the new Annex as proposed in question 2 and 3 (equivalent to 36.331 Annex F plus the clarification from question 3) provides a framework where, in principle, it is possible to implement any feature in an earlier release and the decision to do so can be made by discussions between vendors and operators outside of 3GPP.Finally, a minor point on the wording of the proposal. Given this discussion is about NR, it would be better to refer to 38.331 Annex C instead of referring to Annex G. |

**Proposal 2: it is proposed to introduce the description of the UE requirements regarding how the ASN.1 definitions can be comprehended by the UE in the TS 38.331 as well, which is similar to that in Annex F of TS 36.331.**

**Question 2: Do you agree with Proposal 2 ?**

|  |  |  |
| --- | --- | --- |
| Company | YES/NO | Comment / alternative proposal |
| CMCC | YES |  |
| Huawei, HiSilicon | Yes |  |
| Telecom Italia  | Yes |  |
| Nokia | Yes |  |
| Ericsson | Yes |  |
| CATT | Yes |  |
| Futurewei | Yes |  |
| vivo | Yes |  |
| Qualcomm Incorporated | Yes |  |
| ZTE | Yes |  |
| Samsung | Yes |  |
| Intel | Yes |  |
|  |  |  |

**Proposal 3: it is proposed the clarification on the inconsistent description on the UE requirements on transfer syntax (ASN.1) comprehension between broadcast signalling and dedicated signalling is required.**

**Question 3: Do you agree with Proposal 3?**

|  |  |  |
| --- | --- | --- |
| Company | YES/NO | Comment / alternative proposal |
| CMCC | Yes |  |
| Huawei, HiSilicon | Yes |  |
| Telecom Italia | Yes |  |
| Nokia | Yes | Correct, UE requirements regarding the ASN.1 to be comprehended are needed to be clarified, covering both broadcast and decicated signalling. |
| Ericsson | Yes |  |
| CATT | Yes |  |
| Futurewei | Yes |  |
| vivo | Yes |  |
| Qualcomm Incorporated | Yes |  |
| ZTE | Yes |  |
| Samsung | Yes | We agree both types of signalling should be covered and are largely fine with the draft CR but have some minor suggestions regarding detailed wording. |
| Intel | Yes |  |
|  |  |  |

## 2.1 Potential Agreements (de-prioritized)

In this section, companies are invited to propose your preferred features for the early release implementation in NR. However, since this item is predicted to be controversial and RAN plenary is possible to be involved for the last conclusion, we just do our best to achieve an agreement on allowed features for the early release implementation in NR. If it was too controversial, this part would not be reflected in the agreed CR.

**Question 4: what’s your preferred features?**

|  |  |  |
| --- | --- | --- |
| **Company** | **Preferred features for the early release implementation in NR** | **Comment / alternative proposal from other participants** |
| CMCC | * Inter-band CA with unaligned frame boundary,
* UL TX switching,
* L3 CSI-RS measurement Result Reporting
 |  |
| Huawei, HiSilicon | We understand we should first capture what have already been agreed to allow early implementation, [R2-2007960](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_111-e%5CDocs%5CR2-2007960.zip) has proposed to capture this according to P1 and we suggest to agree this CR at this meeting.For new features which would potentially be early implemented, we need more time to think about it and we also think this is better to be contribution driven and thus we can understand better the motivation. |  |
| Telecom Italia | --- | It should be discussed on a case-by-case basis (as indicated in Q1, mainly considering strong market requirements from operators). We share the view of Huawei on the need to discuss based on contributions provided by interested companies. |
| Nokia |  | Agree with Telecom Italia that this is a small subset and case by case basis discussion. Of course, final decision rests with RAN plenary. |
| CATT | We tend to agree with Huawei comments. The previous discussions focus more on general principle that is along the line of LTE so no problem. Regarding exactly which feature we apply these more time is needed to check. |  |
| Futurewei |  | This email discussion can focus on the general principle of supporting early implementation of later release’s feature.The actual feature in question should be proposed in corresponding contribution and discussed case-by-case. |
| OPPO | We also think this email intends to discuss general principle rather detail features for early implementation. |  |
| vivo |  | Agree with Futurewei |
| Qualcomm Incorporated |  | We are concerned that more and more features are solicited for early implementation this lightly. We suggest careful considerations be given on this. |
| ZTE | We prefer to agree on the general principle of supporting early implementation first. The content of the white list can be discussed case by case based on contributions and we need more time to think about it. |  |
| Samsung |  | We think that for now we should just agree the general principle. We also agree with others that early implementation should be discussed on a case by case basis i.e. based on individual input/ proposals and that it should be agreed only after careful evaluation. |
| Intel |  | We have similar view to Qualcomm's comment above. So again we would like to stress that this approach is taken in exceptional cases when there is strong industry demand (as also commented to question 1) |

# **3 Conclusion**

TBD

# 4 References

1. R2-2001627 Impact of CG/SPS with periodicities non dividing HF length Sequans CommunicationsR2-2008102 Early Release Support of Features in NR CMCC, ZTE, Huawei, CATT, Ericsson discussion Rel-17 TEI16
2. R2-2008103 CR for Early Implementation in NR CMCC, ZTE, Huawei, CATT, Ericsson CR Rel-17 38.331 16.1.0 1961 2 B TEI16
3. [R2-2006716](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_111-e%5CDocs%5CR2-2006716.zip) Handling of early implementable features in NR Intel Corporation discussion Rel-16 TEI16
4. [R2-2007231](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_111-e%5CDocs%5CR2-2007231.zip) UE requirements on ASN.1 comprehension covering early implementation Samsung Telecommunications CR Rel-16 38.331 16.1.0 1807 - F TEI16
5. [R2-2007960](file:///D%3A%5CDocuments%5C3GPP%5Ctsg_ran%5CWG2%5CTSGR2_111-e%5CDocs%5CR2-2007960.zip) Introduction of CR containing early implementable feature Huawei, HiSilicon CR Rel-16 38.331 16.1.0 1949 - F TEI16