**3GPP TSG RAN#90e RP-20xxxx**

**e-Meeting, December 7th – 11th, 2020**

**Agenda item:**

**Source:** 3GPP TSG RAN1 Chairman

**Title:** Email Summary on RAN4 Requirements Handling

**Document for:** Discussion/Decision

# Introduction

In this document, we will provide a summary on RAN4 reuqirements handling based on the following contribution:

* RP-202801 On the Optionality of RAN4 Requirements Qualcomm Incorporated, Nokia, Verizon, Deutsche Telekom, Vodafone, T-Mobile USA, KDDI, Softbank, China Telecom, AT&T

# Proposals

There are two observations and one proposal made in RP-202623, as copied below:

* Observation 1. A capability implying the optionality of meeting the RAN4 requirements for a certain feature will implicitly make the feature optional by making it impossible to test.
* Observation 2: Allowing optionality of 3GPP requirements will devalue the 3GPP specifications and could raise serious issues for the entire eco-system.
* Proposal: RAN4 should not consider any proposals that make RAN4 requirements optional for a feature/functionality.

## Initial Email Discussion

Questions:

* Do you agree with the proposal in RP-202633? Why/why not?
  + Please elaborate detailed thoughts
* Any other thoughts?

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| --- | --- |
| **Company** | **Views** |
| vivo | We agree with the proposal in RP-202633. For the features defined as mandatory by other WGs are discussed in depth and market need is well analysed. RAN4 requirements for specific technique is defined basded on their feasibility and implementation aspects are fully understood, which is based on consensus in RAN4. Agreed RAN4 requirements being optional just doesn’t make sense. |
| Verizon | The contribution RP-202633 well discussed the current RAN4 work status and possible technical problems. We agree and support the proposal in RP-202633. |
| CMCC | We agree with the proposal in RP-202633. RAN4 had spent several meetings discussed whether to capture some RAN4 requirements as “optional features” in the UE feature list. This kind of discussion should be avoided in the future. Requirements are not features and cannot be optionally supported. Even for optional features, if UE support this optional feature, it needs to meet corresponding RAN4 requirements. |
| T-Mobile USA | We support the proposal in RP-202623 for the reasons explained in observations. |
| China Telecom | We support the obsevations and proposal, which seems the common understanding according to the discussion in Nov RAN4 meeting.  If something cannot be mandatory supported by all the UEs, separate UE feuature/capability(s) need to be introduced by the corresponding WG. The support of a feature and the requirements is always indicated by the same capability. |
| Apple | The term of “make RAN4 requirements optional” is a bit vague. RAN4 does specify requirements for optional features. UE can obviously opt for not supporting an optional feature. That means the related are optional to be supported by that UE.  If the intention of RP-202623 is if UE capability can be defined based on different requirements. I think the answer is YES. RAN4 has precedence to specify two sets of requirements. Depending on which set of requirements UE chooses to comply with, different UE capability can be indicated.  Overall, we think RAN4 has had established principle to deal with feature optionality and the related requirements. No further agreements seem necessary. |
| Samsung | We also support the observations as well as the proposals in RP-202633. It is better to get clear guideline from RAN that UE requirements shall NOT be included in the feature list discussion even for future release.  For different sets of requirements as commented by Apple, we think it is about the applicability rules of certain requirements which can be discussed in RAN4. Given RAN4 is supposed to define the minimum requirements in general, we shall be also careful about defining different set of requirements.  As similar as our understanding that mandaotry/optional cannot be applied for RAN4 requirements, we think release independent concept cannot be applied for RAN4 requirements either. RAN4 requirements defined in current release cannot be applied for early release even though the feature maybe introduced in early release. For any exceptions for applying requirements in early release, RAN4 shall discuss in case by case manner. |
| LGE | In RP-202801, QC proposed that RAN4 should not consider any proposals that make RAN4 requirements optional for a feature/functionality. It is quite confused to us. Probablely, the intention is that follow the same principle with other WGs if they define the specific feature as mandatory, then RAN4 should define the related RAN4 requirements as mandatory for the feature.  Then, could give a example case which RAN4 requirements do not follow the principle? In my understanding, RAN4 generally follow the genral principle.  Specially, it is open to define different sets of requirements based on RAN4 consensus. |
| Telecom Italia | We support RP-202633 for the reasons mentioned by several companies. Moreover, specification works is not simply limited to RAN1 and RAN2 specifications, but to be possible to exploit a feature, RAN4 requirements and RAN5 testing must be specified |
| Intel | The proposal is somewhat ambiguous and we prefer not to define a general rule. There are specific use cases, which may require definition of optional RAN4 requirements. There are some examples when RAN4 requirements and respective features are defined as Optional (e.g. enhanced R-ML receivers). Also, there are cases when the feature is defined in Rel-15, while the requirement is introduced in Rel-16 or later. In this case Rel-15 UEs may not be required to meet the requirements. In theory such requirements can be potentially defined as optional for Rel-15 UE to allow early implementations. Therefore, we prefer to discuss each feature/requirement on a case by case basis. |
| MTK | At least for a feature designed by other WGs, if RAN4 only specifies a single requirement for that feature, then the requirement should be mandatory. Of course, if RAN4 agreed to have 2 different UE requirements (like BWP switch delay), it is fine to introduce capability.  As to RAN4-led WIs, it is up to RAN4 discussion to decide mandatory or optional. |

Propoals:

* TBD

# Conclusion

Based on the email discussion, the following are proposed:

* TBD

# References

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