**3GPP TSG RAN WG2 Meeting #129 R2-250xxxx
Athens, Greece, 17th – 21th Feb., 2025**

**Agenda item: 8.5.1**

**Source: Apple**

**Title: Collection of comments to 38.304 CR for NES**

**WID/SID: Netw\_Energy\_NR\_enh-Core– Release 19**

**Document for: Discussion and Decision**

# 1 Introduction

This is a summary document on collection of comments to TS 38.304 CR during below running CR discussion:

* [POST129][104][NES] (Apple)

 **Scope:** Capture all agreements in 38.304 running CR and identify stage 3 open issues.

 **Intended outcome:** Endorsed 38.304 running CR in R2-2501464 (including editor’s notes for stage 3 open issues)

**Deadline: Long email discussion**

# 2 Collection of comments

Please provide your comments in below table, and Rapporteur will response. Please do not insert any comments in running CR directly, which is hard for Rapporteur to follow all comments.

And based on existing EN and your comments, Rapporteur will identify stage 3 open issues.

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| --- | --- | --- |
| **Company** | **Detailed comments** | **Rapporteur response** |
| CATT | The OD-SIB1 UE determines the cell reservations and access restrictions in accordance with Section 5. On top of it, OD-SIB1 UE considers the OD-SIB1 cell as if cell status is “barred” and excludes it as a candidate for reselection in the following cases:* if it has no corresponding UL WUS configuration, or (CATT: suggest to remove it as it seems not correct. The UE does not know whether a cell is NES cell UE does not have corresponding UL WUS configuration )
* if the RACH procedure to acquire OD-SIB1 is failed, or
* if it fails to acquire SIB1.(CATT: suggest to change it to “if it fails to acquire SIB1 after successfully receiving RAR for the OD-SIB1 request.”,otherwise it is overlapped with bullet 2 above)

Meanwhile, the OD-SIB1 UE would treat the OD-SIB1 cell as if cell status is “not barred” and consider it as candidate for cell reselection in the following cases: * if it hasn’t acquired SIB1 from the OD-SIB1 cell before initialization of OD-SIB1 procedure but has received a valid UL WUS configuration, or
* if it regarded the OD-SIB1 cell as if cell status is “barred” due to lack of corresponding UL WUS configuration before but has received a valid UL-WUS configuration.

After the OD-SIB1 UE successfully receives SIB1 from the selected OD-SIB1 Cell and if it is a suitable cell, it camps in the OD-SIB1 Cell and follows the behavior of Camped Normally state specified in Section 5.2.5. The OD-SIB1 UE may receive UL WUS configuration updates in SIB-X via the system information modification procedures defined in TS 38.331 [3]. CATT: The highlighted sentence above seems not necessary. |  |
| vivo1 | **Section 3.1:**1. Suggest to clarify the UE in OD-SIB1 cell definition as “**OD-SIB1 Cell:** A cell that may transmit SIB1 in response to UL WUS from ~~a~~ an OD-SIB1 UE.” |  |
| vivo2 | **Section 7.1:**For a UE supporting paging adaptation, if another set of paging configuration is signaled in system information, it only monitors the PO(s) derived from this set of paging parameters. In this case, the UE still monitors one PO per DRX cycle. Based on Network configuration, it is allowed that the UE(s) supporting paging adaptation to monitor the same PO as the UE(s) which don’t support paging adaptation. Paging adaptation configuration can only be updated via system information update notification.[vivo] We understand the highlighted part comes from the RAN2 agreement ‘Allowing legacy and R19 UEs to co-ex in the same PF/PO is possible, based on NW configuration.‘. Yet, we think it has no spec impact from the UE side, as it is already mentioned in this paragraph ‘it only monitors the PO(s) derived from this set of paging parameters.’. If the majority prefers to keep the agreement, perhaps we can state from the NW side as a note. Here’s an example, the detailed wording is up to Rapp to decide:Note: The network can configure the legacy UEs and the UEs supporting paging adaptation in the same PF/PO.[OPPO] We share similar view as vivo. |  |
| vivo3 | **Section X:**For an OD-SIB1 UE in RRC\_IDLE or RRC\_INACTIVE state, it may acquire UL WUS configuration from SIB-X of its camping cell for request of SIB1 transmission in one OD-SIB1 cell. The SIB-X can be cell specific configured or area specific configured, and the OD-SIB1 UE determines whether it is valid according to the validity mechanism defined in TS 38.331 [3]. [vivo] The yellow highlighted part is not needed as 38.331 has already specified that ‘Any SIB or posSIB except *SIB1* can be configured to be cell specific or area specific, using an indication in *SIB1*.’ and the agreement from OD-SIB1 does not violate it.[OPPO] Share the view from vivo, and similarly the sentence afterwards ‘and the OD-SIB1 UE determines whether it is valid according to the validity mechanism defined in TS 38.331 [3]’ can also rely on 331.[Samsung]: The entire paragraph is not needed in 38.304. SIB1 request procedure will be specified in 38.331 and these details (if needed) can be captured in there. |  |
| vivo4 | **Section X:**If dedicated frequenecy priority parameters are provided in system information, the OD-SIB1 UE ignores the *cellReselectionPriority* in the system information and applies dedicated ones to determine frequency prioritization in accordance with Section 5.2.4.1. If dedicated inter-frequency and/or intra-frequecy excluded cell lists are provided in system information, the OD-SIB1 UE ignores *intraFreqExcludedCellList / interFreqExcludedCellList* and doesn’t consider the cell(s) in the dedicated lists as candidates for cell reselection.[vivo] The whole paragraph is not needed as the details will be mentioned in the corresponding IE fields in 38.331.[OPPO] For excluded cell, we also share the view from vivo, since there was no text of this in legacy 304 but more relies on 331.But for priority, to us it is OK to be included in 304 since there has been text on it in legacy 304 already. |  |
| vivo5 | **Section X:**The OD-SIB1 UE determines the cell reservations and access restrictions in accordance with Section 5. On top of it, OD-SIB1 UE considers the OD-SIB1 cell as if cell status is “barred” and excludes it as a candidate for reselection in the following cases:- if it has no corresponding UL WUS configuration, or - if the RACH procedure to acquire OD-SIB1 is failed, or - if it fails to acquire SIB1.[vivo] We think the yellow highlighted part is not necessary as it is legacy behavior. For the green highted part, as commented by companies online, the definition of ‘RACH procedure failure’ is not quite clear according to 38.321 and thus it was agreed as ‘ The UE considers the cell as barred after MAC indicates max number of preamble transmission for the OD-SIB1 request.’. Therefore, maybe it’s better to stick with the agreement wording, or we leave it specified in 38.321?  |  |
| OPPO001 | For a UE supporting paging adaptation and PEI, if another set of PEI configuration is signaled in system information, it only monitors the PEI derived from this set of PEI parameters. In this case, the UE still monitors one PEI per DRX cycle.[OPPO] The yellow part should be replaced by field name later when available, now it can be put into bracket like [another set of PEI configuration]. |  |
| OPPO002 | For an OD-SIB1 UE in RRC\_CONNECTED state, after the RRC re-estabslihement procedure is triggered in accordance with TS 38.331 [3], it may trigger the OD-SIB1 acquisition procedure with the stored UL WUS configuration in SIB-X, if it is determined as valid according to the validity mechanism defined in TS 38.331 [3][OPPO] for the yellow part, is it to reflect the conclusion of ‘- When T311 is running, the UE can trigger the OD-SIB1 acquisition procedure with stored UL WUS configuration in SIB-X, if it is still valid.’? If so, the intention is correct, yet without area-ID or value-tag, the only validity check operation can be based on 3h criterion, which however would run as ‘delete any stored version of a SIB after 3 hours from the moment it was successfully confirmed as valid;’, i.e., there would be no stored version on hand after 3h, so the yellow part can be even removed or simplified as ‘if available’.  |  |
| Xiaomi001 | It is for RRC\_CONNECTED mode UE, I think it is better to capture this part in TS38.331 not 38.304. |  |
| Samsung 001 | **Definitions****“OD-SIB1 Cell**: A cell that may transmit SIB1 in response to UL WUS from a UE.**OD-SIB1 UE**: A UE that supports on-demand SIB1 acqusition procedure via UL WUS.“Comment: We do not see need of these definitions. We do not define new UE type for each feature introduced in the spec. For example, we do not have OD-OSI UE or OD-OSI Cell in current spec.[Nokia] Agree with Samsugn – and additional UL-WUS is too vague for stage-3 – preamble/RACH or reference to MAC would be more appropriate. |  |
| Samsung 002 | **Definitions****“OD-SIB1 Cell**: A cell that may transmit SIB1 in response to UL WUS from a UE.**OD-SIB1 UE**: A UE that supports on-demand SIB1 acqusition procedure via UL WUS.“Comment: We prefer not use the term ‘UL WUS’ which means uplink wakeup signal. In the specification we should use term which clearly indicate the intended behavior. In our view we should use ‘SIB1 request’ instead of UL WUS. |  |
| Samsung 003 | **Section 7.1**“For a UE supporting paging adaptation, if another set of paging configuration is signaled in system information, it only monitors the PO(s) derived from this set of paging parameters. In this case, the UE still monitors one PO per DRX cycle. Based on Network configuration, it is allowed that the UE(s) supporting paging adaptation to monitor the same PO as the UE(s) which don’t support paging adaptation. Paging adaptation configuration can only be updated via system information update notification. “Comment 1: Its not clear what term ‘paging adaptation’ means. We should add a definition as follows:**paging adaptation**: paging configuration that allows network to configure PF(s)/PO(s) in the beginning of DRX cycle.Comment 2: Do not see need of this sentence “In this case, the UE still monitors one PO per DRX cycle.”Comment 3: Do not see need of this sentence “Based on Network configuration, it is allowed that the UE(s) supporting paging adaptation to monitor the same PO as the UE(s) which don’t support paging adaptation.” Its network implementation and there is no impact to UE behavior.Comment 4: Do not see need of this sentence “Paging adaptation configuration can only be updated via system information update notification.” This is business as usual. Paging adaptation configuration is part of SI and we have generic procedure to update any parameter signalled in SI. We do not specify for each parameter how it can be updated. |  |
| Samsung 004 | Section 7.2.1 For a UE supporting paging adaptation and PEI, if another set of PEI configuration is signaled in system information, it only monitors the PEI derived from this set of PEI parameters. In this case, the UE still monitors one PEI per DRX cycle.Editor’s note 2: details of Rel-19 PEI configuration and whether/how to capture the details.Comment 1: Do not see need of this sentence “In this case, the UE still monitors one PEI per DRX cycle.” |  |
| Samsung 005 | Section X“When one intra-frequency / inter-frequency neighbor OD-SIB1 cell satisfies the cell reselection criterion defined in Section 5.2.4.5 and Section 5.2.4.6 and doesn’t broadcast SIB1, the OD-SIB1 UE triggers the UL WUS transmission towards this OD-SIB1 cell with the RACH procedure defined in TS 38.321 [19]. “Comment: Do not see need for this para. When or the condition for UE to triggers SIB1 acquisition is as in legacy. There is no new trigger. RRC defines SIB1 acquisition. In cases where UE need SIB1, if SIB1 is provided on demand, SIB1 request procedure should be triggered from RRC.  |  |
| Samsung 006 | Section XThe OD-SIB1 UE determines the cell reservations and access restrictions in accordance with Section 5. On top of it, OD-SIB1 UE considers the OD-SIB1 cell as if cell status is “barred” and excludes it as a candidate for reselection in the following cases:* if it has no corresponding UL WUS configuration, or
* if the RACH procedure to acquire OD-SIB1 is failed, or
* if it fails to acquire SIB1.

Comment: Do not see need for this para. Similar to barring in case UE fails to acquire SIB1 in legacy, these cases will be/should be defined in RRC. |  |
| Samsung 007 | Section X“After the OD-SIB1 UE successfully receives SIB1 from the selected OD-SIB1 Cell and if it is a suitable cell, it camps in the OD-SIB1 Cell and follows the behavior of Camped Normally state specified in Section 5.2.5. The OD-SIB1 UE may receive UL WUS configuration updates in SIB-X via the system information modification procedures defined in TS 38.331 [3]. Comment: Once UE has acquired SIB1 and cell is suitable, UE camps as in legacy. So we do not see need of this text.“ |  |
| Samsung 008 | “For an OD-SIB1 UE in RRC\_CONNECTED state, after the RRC re-estabslihement procedure is triggered in accordance with TS 38.331 [3], it may trigger the OD-SIB1 acquisition procedure with the stored UL WUS configuration in SIB-X, if it is determined as valid according to the validity mechanism defined in TS 38.331 [3]. In more details, when one OD-SIB1 cell satisfies the cell selection criterion defined in Section 5.2.3.2 and doesn’t broadcast SIB1, the UE triggers the UL WUS transmission towards the selected OD-SIB1 cell with the same RACH procedure as the OD-SIB1 UE in RRC\_IDLE and RRC\_INACTIVE state defined in TS 38.321 [19].“Comment: Again, SI acquisition is RRC procedure. This should be not specified in 38.304. |  |
| Sharp001 | Section X UL WUS operationComments: Based on above companies’ comments, we think a separate Section X may not be needed. The description barred/not barred can be merged into Section 5.3.1 Cell status and cell reservations. |  |
| HW001 | Section 7.1 and 7.2.1For a UE supporting paging adaptation, if another set of paging configuration is signaled in system information(…)For a UE supporting paging adaptation and PEI, if another set of PEI configuration is signaled in system information, it only monitors the PEI derived from this set of PEI parameters. In this case, the UE still monitors one PEI per DRX cycle.* The term “another set of paging/PEI configuration” is ambiguous. We suggest adding a name of the feature or something else to differentiate.
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| HW002 | Section XFor an OD-SIB1 UE in RRC\_IDLE or RRC\_INACTIVE state, it may acquire UL WUS configuration from SIB-X of its camping cell for request of SIB1 transmission in one OD-SIB1 cell. The SIB-X can be cell specific configured or area specific configured, and the OD-SIB1 UE determines whether it is valid according to the validity mechanism defined in TS 38.331 [3]. * Seems highlighted information will be in 331 and is not needed in 304.
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| HW003 | Section X* if it has no corresponding UL WUS configuration, or
* if the RACH procedure to acquire OD-SIB1 is failed, or
* if it fails to acquire SIB1.

The highlighted part is legacy behaviour so probably not needed.  |  |
| HW004 | Section XMeanwhile, the OD-SIB1 UE would treat the OD-SIB1 cell as if cell status is “not barred” and consider it as candidate for cell reselection in the following cases: * if it hasn’t acquired SIB1 from the OD-SIB1 cell before initialization of OD-SIB1 procedure but has received a valid UL WUS configuration, or
* if it regarded the OD-SIB1 cell as if cell status is “barred” due to lack of corresponding UL WUS configuration before but has received a valid UL-WUS configuration.

The wording of the two cases is confusing as they seem almost the same. Suggest to reword the cases to show the difference or merge into one bullet if there is no difference.  |  |
| Nokia001 | Paging -additions. – text seems in places more like stage 2 text e.g. “another set of paging configuration” – why not just refere to stage-3 ASN.1 field name to be exact to avoid any misinterpretation. I understand that maybe RRC was not available when this version was made – so this approach is understandable but still rather than writing like this IN the section 7 new paragraph:“. Based on Network configuration, it is allowed that the UE(s) supporting paging adaptation to monitor the same PO as the UE(s) which don’t support paging adaptatio” . What is this supposed to say and capture. Is this really needed? This seems really unnecessary and not something we have agreed?Also 38.304 does not need to have text on how parameters are updated. It is in RRC – no text there though as changes are done as in legacyIn the end we should first add new parameters in paragraph above of new paragraph and then in the new paragraph refer to explicit parameter names and how N/Ns as derived. And likely no more is needed. |  |
| Nokia002 | PEI – You seem to have capture incorrectly agreement in RAN2 meeting – agreement is “ Introduce a separate PEI configuration” – there is no agreement UE only monitors Pei derived from this set of PEI parameters. Please remove that. [Huawei] Agree with Nokia. There are two possible behaviours for R19 NES UEs: Option 1) R19 NES UEs only monitor R19 PEIOption 2) R19 NES UEs monitor legacy PEI for legacy POs and R19 PEI for R19 POsIt should be further discussed in the next meeting which is the intended UE behaviour. |  |
| Nokia003 | Section X – Section name seems quite misleading – Shouldn’t it be OD-SIB1 operation?And why is any of this captured in 38.304? Shouldn’t this be in 38.331?And in section you have missed agreement that UE needs to check if SIB1 is transmitted before requesting OD-SIB1. |  |
| Fujitsu 001 | Section X “When one intra-frequency / inter-frequency neighbor OD-SIB1 cell satisfies the cell reselection criterion defined in Section 5.2.4.5 and Section 5.2.4.6 and doesn’t broadcast SIB1, the OD-SIB1 UE triggers the UL WUS transmission towards this OD-SIB1 cell with the RACH procedure defined in TS 38.321 [19]. “ [Fujitsu] To trigger the UL WUS, the OD-SIB1 UE needs a valid UL WUS configuration but the above text does not mention this condition. In our understanding, such triggering conditions should be captured in 38.331 and not needed in 38.304. . |  |
| Fujitsu 002 | Section X If dedicated frequenecy priority parameters are provided in system information, the OD-SIB1 UE ignores the *cellReselectionPriority* in the system information and applies dedicated ones to determine frequency prioritization in accordance with Section 5.2.4.1.[Fujitsu] For highlighted part, should the OD-SIB1 UE ignore *nsag-CellReselectionPriority* as well, if provided in SIB16 ? |  |
| Fujitsu 003 | Section X For an OD-SIB1 UE in RRC\_CONNECTED state, after the RRC re-estabslihement procedure is triggered in accordance with TS 38.331 [3], it may trigger the OD-SIB1 acquisition procedure with the stored UL WUS configuration in SIB-X, if it is determined as valid according to the validity mechanism defined in TS 38.331 [3]. In more details, when one OD-SIB1 cell satisfies the cell selection criterion defined in Section 5.2.3.2 and doesn’t broadcast SIB1, the UE triggers the UL WUS transmission towards the selected OD-SIB1 cell with the same RACH procedure as the OD-SIB1 UE in RRC\_IDLE and RRC\_INACTIVE state defined in TS 38.321 [19].[Fujitsu] As indicated by several companies, the above procedure should be removed and captured in 38.331. |  |
| Nokia004 | We noticed that agreement on reverting barring upon acquiring WUS config for the cell has not been implemented. We would propose to do that in the 38.304. OR is your intention it should be captured in 38.331. To us it loks more logical to have handling on 38.304 e.g. 5.2.4.4 new paragraph indicating that UE revert barring upon acquisiton of valid WUS config. But also this could be in RRC in 5.2.2.4.2x (reception of SIBxx). Anyway alignment RRC rapporteur is needed on this. |  |
| Ericsson001 | We think the following definitions are not needed, at least for now:**OD-SIB1 Cell**: A cell that may transmit SIB1 in response to UL WUS from a UE.**OD-SIB1 UE**: A UE that supports on-demand SIB1 acquisition procedure via UL WUS.Note that we have the following definition in the running RRC CR:“OD-SIB1: On demand SIB1 as defined in TS 38.300 [2].”and we expect that the high-level definitions of features such as OD-SIB1, OD-SSB are captured in 38.300. We do not think there is a need to describe what a OD-SIB1 UE or OD-SIB1 cell is.It is sufficient to capture the same definition in 38.304.We will capture an FFS about the terminology in the running RRC CR email discussion. |  |
| Ericsson002 | We think that the specification text should use “UE supporting OD-SIB1”, and “cell operating in OD-SIB1 mode”, or “cell in which OD-SIB1 is enabled” or a similar version where needed. |  |
| Ericsson003 | We do not think the following proposed text needs to be captured. The proposed text either reflects the legacy mechanism or describes the UE behaviour that supports a particular feature based on the corresponding configuration which needs to be captured in another spec:“For a UE supporting paging adaptation, if another set of paging configuration is signalled in system information, it only monitors the PO(s) derived from this set of paging parameters. In this case, the UE still monitors one PO per DRX cycle. Based on Network configuration, it is allowed that the UE(s) supporting paging adaptation to monitor the same PO as the UE(s) which don’t support paging adaptation. Paging adaptation configuration can only be updated via system information update notification.” |  |
| Ericsson004 | We agree with the comments from other companies regarding the proposed text below:“For a UE supporting paging adaptation and PEI, if another set of PEI configuration is signalled in system information, it only monitors the PEI derived from this set of PEI parameters. In this case, the UE still monitors one PEI per DRX cycle.”Similar to the cases above there is no need to capture this text in 38.304. But most important than that it does not seem to be entirely correct either. |  |
| Ericsson005 | We question the need for this section and the title. It may be fine to keep it for now if there is support, however, please see our comments below regarding the proposed text in this section. |  |
| Ericsson006 | The intention with the text below is suitable to be captured in 38.300 (and maybe in 38.331).“For an OD-SIB1 UE in RRC\_IDLE or RRC\_INACTIVE state, it may acquire UL WUS configuration from SIB-X of its camping cell for request of SIB1 transmission in one OD-SIB1 cell. The SIB-X can be cell specific configured or area specific configured, and the OD-SIB1 UE determines whether it is valid according to the validity mechanism defined in TS 38.331 [3].“ |  |
| Ericsson007 | Regarding the proposed text below:“If dedicated frequenecy priority parameters are provided in system information, the OD-SIB1 UE ignores the *cellReselectionPriority* in the system information and applies dedicated ones to determine frequency prioritization in accordance with Section 5.2.4.1. If dedicated inter-frequency and/or intra-frequecy excluded cell lists are provided in system information, the OD-SIB1 UE ignores *intraFreqExcludedCellList / interFreqExcludedCellList* and doesn’t consider the cell(s) in the dedicated lists as candidates for cell reselection.”We think the highlighted part is not needed, for the same reasons mentioned above in our comments. It is also questionable if the remaining part should be captured in 38.304 since these parameters and their descriptions etc. are captured in 38.331. We may add an editor’s note now to check. |  |
| Ericsson008 | “When one intra-frequency / inter-frequency neighbor OD-SIB1 cell satisfies the cell reselection criterion defined in Section 5.2.4.5 and Section 5.2.4.6 and doesn’t broadcast SIB1, the OD-SIB1 UE triggers the UL WUS transmission towards this OD-SIB1 cell with the RACH procedure defined in TS 38.321 [19]. “The procedure for triggering OD-SIB1 is captured in 38.331. We wonder if the proposed text above is entirely correct, i.e., how does the UE know that an “OD-SIB1 cell” satisfy the criteria for cell reselection before the UE acquires SIB1?  |  |
| Ericsson009 | “The OD-SIB1 UE determines the cell reservations and access restrictions in accordance with Section 5. On top of it, OD-SIB1 UE considers the OD-SIB1 cell as if cell status is “barred” and excludes it as a candidate for reselection in the following cases:* if it has no corresponding UL WUS configuration, or
* if the RACH procedure to acquire OD-SIB1 is failed, or
* if it fails to acquire SIB1.”

Regarding the proposed text above, we expect that the procedure marked yellow (not necessarily as it is) is captured in 38.331 and/or 38.321. The phrase “On top of it” does not sound as specification text. |  |
| Ericsson010 | “Meanwhile, the OD-SIB1 UE would treat the OD-SIB1 cell as if cell status is “not barred” and consider it as candidate for cell reselection in the following cases: * if it hasn’t acquired SIB1 from the OD-SIB1 cell before initialization of OD-SIB1 procedure but has received a valid UL WUS configuration, or
* if it regarded the OD-SIB1 cell as if cell status is “barred” due to lack of corresponding UL WUS configuration before but has received a valid UL-WUS configuration. “

Similar to our comment above, we expect that the procedure marked in yellow above is captured in 38.331 The term “Meanwhile” does not sound like specification text.  |  |
| Ericsson011 | “For an OD-SIB1 UE in RRC\_CONNECTED state, after the RRC re-establishment procedure is triggered in accordance with TS 38.331 [3], it may trigger the OD-SIB1 acquisition procedure with the stored UL WUS configuration in SIB-X, if it is determined as valid according to the validity mechanism defined in TS 38.331 [3]. In more details, when one OD-SIB1 cell satisfies the cell selection criterion defined in Section 5.2.3.2 and doesn’t broadcast SIB1, the UE triggers the UL WUS transmission towards the selected OD-SIB1 cell with the same RACH procedure as the OD-SIB1 UE in RRC\_IDLE and RRC\_INACTIVE state defined in TS 38.321 [19].”Regarding the proposed text above, we expect that the procedure is captured in 38.331 |  |

# 3 Conclusion

Based on post-meeting email discussion, Rapporteur identify the following stage 3 open issues: