**3GPP TSG RAN WG2 Meeting #131 R2-250xxxx**

Bengaluru, India, Aug 25th – 29th, 2025

Source: Xiaomi

Title: Comment for [POST131][043][AI PHY] UE capabilities (Xiaomi)

Document for: Discussion and Decision

# Introduction

* [POST131][043][AI PHY] UE capabilities (Xiaomi)

 Intended outcome: align on remaining open issues and agreable proposals

 Deadline: Sept. 4th

Companies providing input to this email discussion are requested to leave contact information below.

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| **Company** | **Name** | **Email Address** |
| Huawei, HiSilicon | Seau Sian Lim | seau.sian.lim@huawei.com |
| Lenovo | Congchi Zhang | zhangcc16@lenovo.com |
| Nokia | Sakira Hassan | sakira.hassan@nokia.com |
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# Comment

Companies are invited to provide comments **if there’s a change that is not agreeable**. Other comments are welcomed.

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| **Capability IE/FG** | **Specification****(306/331)** | **Comment** | **Proposed Change** | **Status updated by Rapp** |
| ***applicabilityReportingCSI*** | 306 | Combine the “support of updates via UAI” into the first sentence. | “Indicates whether the UE supports reporting of applicability status (via *RRCReconfigurationComplete* or via *UEAssistanceInformation* message) and its updates (via via *UEAssistanceInformation* message) based on inference configuration provided via *CSI-ReportConfig*, as specified in TS 38.331 [9].” | Resolved |
| ***applicabilityReportingOther-r19*** | 306 | As above | As above | Resolved |
| ***applicabilityReportingOther-r19*** | 306 | Editorial | “support of at least” | Resolved |
| ***dataThresholdAvailabilityIndication-r19*** | 306 | Editorial | ***dataThresholdAvailabilityIndication-r19***Indicates whether the UE supports triggering data availability indication when logged data for data collection for NW-side model reaches a configured threshold.A UE supporting this feature shall also indicate support of *loggedDataCollection-r19*. | Resolved |
| ***eventBasedLoggedDataCollection-r19*** | 306 | Editorial change to simplify the wording and reuse what’s being currently used in RRC specifications. | “event-triggered logging for data collection of NW-side model” 🡪 “event-triggered logging of measurements for network data collection” | Resolved |
| ***loggedDataCollection-r19*** | 306 | Same as above. Additionally, since logging can be either event based (which is a separate capability) or periodical, the text can be further simplified. | “Indicates whether the UE supports logged measurement of data collection for NW-side model, as specified in TS 38.331 [9].” 🡪 “Indicates whether the UE supports periodical logging of measurements for network data collection”With that change the next sentence can also be modified accordingly:“The UE also supports periodical logging for data collection for NW-side model and providing full buffer indication and/or low power indication. “ 🡪 “This capability also indicates that a UE supports providing full buffer indication and~~/or~~ low power indication.”“Or” should be removed as the UE is expected to support both of these, not only one. | Resolved |
| NW-side data collection | 38.822 | In general, to align the wording with RRC, “NW-side data collection” should not be used. | Modify the naming and the descriptions to speak of “Network data collection”, instead of “NW-side data collection” or “data collection for NW-side model” | Resolved |
| ***applicabilityReportingCSI-r19***Indicates whether the UE supports applicability reporting based on inference configuration provided via *CSI-ReportConfig*, as specified in TS 38.331 [9]. The UE also supports providing updates of applicability reporting via UAI. A UE supporting this feature shall also indicate support at least one of *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and *aiml-CSI-Prediction-r19*. | 38.306 | On the CY condition in the field description, we think the way it is written is more for pre-requisite rather than for conditional mandatory. Hence it should be written in a CY manner. I.e. “This feature is mandatory if the UE supports *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and/or *aiml-CSI-Prediction-r19’”* | Propose the following for alignment:“This feature is mandatory if the UE supports *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and/or *aiml-CSI-Prediction-r19’”* | Resolved |
| ***applicabilityReportingOther-r19***Indicates whether the UE supports applicability reporting based on inference configuration provided via *OtherConfig*, as specified in TS 38.331 [9]. The UE also supports providing updates of applicability reporting via UAI. A UE supporting this feature shall also indicate support at least one of *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and *aiml-CSI-Prediction-r19*. | 38.306 | Same comment as above. It should be written in a CY manner. I.e. “This feature is mandatory if the UE supports *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and/or *aiml-CSI-Prediction-r19’”* | Propose the following for alignment: “This feature is mandatory if the UE supports *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and/or *aiml-CSI-Prediction-r19’”* | Resolved |
| ***dataThresholdAvailabilityIndication-r19***Indicates whether the UE supports triggering data availability indication when logged data for data collection for NW-side model reaches a threshold.A UE supporting this feature shall also indicate support of *loggedDataCollection-r19*. | 38.306 | For "data collection for NW-side model", I suggest to align it with 38.331 CR, i.e. In the latest RRC CR R2-2506401, it is using "network data collection". | Use "network data collection" instead of "data collection for NW-side model" across 38.306 CR and 38.331 CR for UE capabilities. | Resolved |
| Cover page related to Other specs | 38.331 | It should indicate the 38.306 with the corresponding CR | Add TS38.306 CRxxxx | Resolved |
| Cover page related to Other specs | 38.331 | [Lenovo] Suppose there is no need to include 38.331 again in “Other core specification” | Remove “TS38.331…” in Other core specifications. | Resolved |
| *AIML-Parameters* | 38.331 | [Lenovo] Editorial | In the description, “AIML-*Parameters*” should be italics “*AIML*-*Parameters*” | Resolved |
| ***applicabilityReportingOther-r19*** | 38.306 | [Lenovo] “inference configuration provided via *OtherConfig”*Shouldn’t it be inference related parameters configuration instead? For Option B. | “inference related parameters configuration provided via *OtherConfig*” | Resolved |
| Others (related to 58-1-7) |  | [Apple] We are not sure whether/how to capture below agreement:9      RAN2 will not introduce separate CSI resource capability for logged NW-side data collection. Legacy capability will be used for logged NW-side data collection. Check with RAN1 on whether this assumption is ok. | Maybe it is in another UE capability discussion. But we assume something like below can be captured:In 58-1-7, add “A UE supporting this feature and *loggedDataCollection-r19*shall also support logging of L1 RSRP and beam ID for network data collection.” | rapporteur suggests to wait for next meeting if there’s any feedback from RAN1 on NW-side data collection, as rapporteur observes the ‘check with RAN1’ part has been included in the NW-side data collection LS to RAN1. |
| ***applicabilityReportingOther-r19***Indicates whether the UE supports applicability reporting based on inference configuration provided via *OtherConfig*, as specified in TS 38.331 [9]. The UE also supports providing updates of applicability reporting via UAI. A UE supporting this feature shall also indicate support at least one of *aiml-BM-Case1-r19*, *aiml-BM-Case2-r19* and *aiml-CSI-Prediction-r19*. | 38.306 | [Nokia] Agree with Lenovo. For option B, it is ‘inference related parameters’ not ‘inference configuration’. We also agreed this in the last RAN2#131 meeting.1 RAN2 confirms that UE receives RRCReconfiguration message including one set or multiple sets of inference related parameters via OtherConfig for option B.2 For Option B for BM Case 1/2, one set or multiple sets of inference related parameters can be configured in OtherConfig, where each set in OtherConfig contains the following parameters according to RAN1#121 agreement:associatedIDforSetA-r19, resourcesForSetA-r19, resourcesForChannelMeasurement, associatedIDforSetB-r19, reportQuantity-r19, reportConfigType, nrofreportedpredictedrs-r19, TimeGap-r19, nroftimeinstance-r19, applicabilityConfigId-r19.3 For Option B for BM Case 1/2, inference related parameter set is configured per serving cell. | In the description field, replace ‘inference configuration’ with ‘inference related parameters’. The description in the Annex should also be updated. | Resolved |
| ***dataThresholdAvailabilityIndication-r19***Indicates whether the UE supports triggering data availability indication via *UEAssistanceInformation* message when logged data for network data collection reaches a configured threshold.A UE supporting this feature shall also indicate support of *loggedDataCollection-r19*. | 38.306 | [Nokia] On the ‘No’ condition of the ‘M’ field, we think this should be mandatory that is ‘CY’. Because it is mandate if the UE indicates the support of ***eventBasedLoggedDataCollection-r19* .** We agreed in RAN2#131 *‘Event-based logging is an optional per UE capability separate from ‘loggedDataCollection-r19’. UE supporting this feature shall also indicate the support of ‘loggedDataCollection-r19’. If UE supports event-based logging it shall support data threshold-based data availability indication.’* | In the description, to add ‘It is mandate to indicate, if UE indicates the support of *eventBasedLoggedDataCollection-r19*.’In the ‘M’ field, to replace ‘No’ with ‘CY’. | Rapporteur understands that the agreement is to consider whenever event-based logging is supported, data threshold-based indication is also supported, i.e., both capabilities are supported simultaneously. Rapporteur thinks current implementation aligns with the agreement. |
| UE-NR-Capability-v1900 | 38.331 | [Nokia] nonCriticalExtension is missing | Add ‘nonCriticalExtension SEQUENCE {} OPTIONAL’ in ASN.1  | Resolved |
| **Annex: RAN2 UE capability feature list** | 38.306, 38.822 | [Nokia] Based on the previous comment and reasoning, Mandatory/optional field for ‘*dataThresholdAvailabilityIndication-r19’* in the Table 8.2.x-1 to be updated with ‘Conditional mandory with capability signaling’  | In the Mandatory/optional field of *dataThresholdAvailabilityIndication-r19* to be replace with ‘Conditional mandatory with capability signalling’ | see reply earlier |
| Cover page related to ***Clauses affected*** | 38.306 | [Nokia] The terminology AI/ML needs to be added in Clause 3.3 | Add ‘AI/ML Artificial Intelligence/Machine Learning’ | Resolved |
| General comment on the terminology of ‘Network data collection’ | 38.306, 38.331, 38.822 | [Nokia] The interpretation of ‘Network data collection’ is misleading as it could mean data collection from the network only. If we use ‘data collection for network-side models’, then the purpose is clear. That is *the data is being collected for the network side models*. | Suggest to use ‘data collection for network-side models’ across all the specifications. | Rapporteur observes ‘network data collection’ is used in 331. To align the same understanding, rapporteur thinks the same wording would be better to avoid any confusion. |
| ***applicabilityReportingOther-r19*** | 38.306 | The following text is not needed anymore “The UE also supports providing updates of applicability reporting via UAI.” | Remove “The UE also supports providing updates of applicability reporting via UAI.” |  |
| ***loggedDataCollection-r19*** | 38.306 | The updated text is interpretated this capability is introduced for periodic logging. It is not RAN2 intention. We should stick to RAN2 agreement, which intends to introduce generic capability for NW-side data collection Introduce an optional per UE capability ‘loggedDataCollection-r19’ to indicate supporting logged measurements of data collection for NW-side model, which includes the following components:1. the minimum 64kB AS layer memory size
2. periodic logging
3. Provide full buffer indication, low power indication

Therefore, we propose to keep the original wording but with some update. | ***loggedDataCollection-r19***Indicates whether the UE supports **logged measurement for network data collection**, as specified in TS 38.331 [9]. The UE **supporting this feature** **shall** also support **periodical logging** and providing full buffer indication and low power indication via *UEAssistanceInformation* message.The UE **supporting this feature** **shall** also support **64KB of** the minimum memory size of logged measurement of network data collection. |  |
| ***dataThresholdAvailabilityIndication-r19*** | 38.306 | Clarification | ***dataThresholdAvailabilityIndication-r19***Indicates whether the UE supports triggering data availability indication via *UEAssistanceInformation* message when **amount of** logged data for network data collection reaches a configured threshold. |  |