**3GPP TSG-RAN4 Meeting # 116 *R4-2512343***

**Bengaluru, India, August 25th - 29th, 2025**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.133** | **CR** | **draftCR** | **rev** | 2 | **Current version:** | **19.1.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | Draft CR on event trigger Reporting based on L1-RSRP measurements for serving cell | | | | | | | | | |
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| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MIMO\_Ph5-Core | | | | |  | ***Date:*** | | | 2025-08-11 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | According to the work split in WF R4-2504902, event trigger Reporting based on L1-RSRP measurements are needed. Based on endorsed draft big CR, R4-2508458, add requirements for event-1 and event-7 | | | | | | | | |
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| ***Summary of change:*** | | Add RRM requirements for event trigger Reporting based on L1-RSRP measurements | | | | | | | | |
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| ***Consequences if not approved:*** | | The spec is not completed | | | | | | | | |
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| ***Clauses affected:*** | | 9.5.3.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

----------------------------------------Start Change #1-------------------------

#### 9.5.3.X Event Triggered Reporting for the UE initiated beam management

For a UE configured with a *CSI-ReportConfig* with *eventType-r19* and with *dl-OrJointTCI-StateList*，with or without *eventDetectionTimeWindowLength-r19* configuration, the reported L1-RSRP measurements contained in an event triggered L1-RSRP measurement report shall meet the requirements in clauses 10.1.19 for FR1 and 10.1.20 for FR2, respectively.

The UE shall not send any event triggered measurement reports if no reporting criteria is fulfilled.

When *eventDetectionTimeWindowLength-r19* is not configured,

The event triggered L1-RSRP measurement reporting delay is defined as the time between an event that will trigger a measurement report and the point when the UE transmits first PUCCH over the air interface. The event triggered measurement reporting delay shall be no larger than TL1-meas\_basic + Tfirst\_UL\_channel, where:

TL1-meas\_basic is the maximum of L1-RSRP measurement periods of the reference signals of the beams corresponding to the event

For a UE configured with a CSI-ReportConfig with the higher layer parameter *eventType-r19* set to ‘event2’, UE shall perform L1-RSRP measurement based on the L1-RSRP measurement period of current beam and new beam(s), respectively.

For a UE configured with a CSI-ReportConfig with the higher layer parameter *eventType-r19* set to ‘event1’, UE shall perform L1-RSRP measurement based on current beam L1-RSRP measurement period.

If the *newBeamResourceSet-r19* is based on SSB, and if the SS/PBCH block which is QCLed with the reference signal in the indicated TCI state is based on SSB:

* the L1-RSRP measurement period of the current beam refers to TL1-RSRP\_Measurement\_Period\_SSB as specified in table 9.5.4.1-1 or 9.5.4.1-2 assuming TReport. = 0, and TSSB is the periodicity of the *SSB-Index* of the reference signal in the indicated TCI state or the SS/PBCH block which is QCLed with the reference signal in the indicated TCI state for the current beam.
* the L1-RSRP measurement period of the new beam refers to TL1-RSRP\_Measurement\_Period\_SSB as specified in table 9.5.4.1-1 or 9.5.4.1-2 assuming TReport. = 0, and TSSB is the periodicity of the *SSB-Index* of the reference signal configured by the *newBeamResourceSet-r19*.

If the reference signal in the indicated TCI state and newBeamResourceSet-r19 are all based on CSI-RS:

* the L1-RSRP measurement period of the current beam refers to TL1-RSRP\_Measurement\_Period\_CSI-RS as specified in table 9.5.4.2-1 or 9.5.4.2-2 assuming TReport. = 0, and TCSI-RS is the periodicity of the reference signal in the indicated TCI state for the current beam.
* the L1-RSRP measurement period of the new beam refers to TL1-RSRP\_Measurement\_Period\_CSI-RS as specified in table 9.5.4.2-1 or 9.5.4.2-2 assuming TReport. = 0, and TCSI-RS is the periodicity of the the reference signal configured by the *newBeamResourceSet-r19* for new beams.

For a UE configured with a *CSI-ReportConfig* with the higher layer parameter *eventType-r19* set to ‘event7’, UE shall perform L1-RSRP measurement based on L1-RSRP measurement period of the beams in active TCI state list and new beams.

If the *newBeamResourceSet-r19* is based on SSB, and if the SS/PBCH block that is QCLed with the reference signal corresponding to the activated TCI states with the highest *valueOfQ-r19* is also based on SSB:

* the L1-RSRP measurement period of each beam of activated TCI states refers to TL1-RSRP\_Measurement\_Period\_SSB as specified in table 9.5.4.1-1 or 9.5.4.1-2 assuming TReport. = 0, and TSSB is the periodicity of the *SSB-Index* of the reference signal in the activated TCI states or the SS/PBCH block which is QCLed with the reference signal in the activated TCI states.
* the L1-RSRP measurement period of the new beam refers to TL1-RSRP\_Measurement\_Period\_SSB as specified in table 9.5.4.1-1 or 9.5.4.1-2 assuming TReport. = 0, and TSSB is the periodicity of the *SSB-Index* of the reference signal configured by the *newBeamResourceSet-r19*.

If the reference signal in the *valueOfQ-r19* highest L1-RSRP out of the reference signals among the activated TCI states and *newBeamResourceSet-r19* are all based on CSI-RS:

* the L1-RSRP measurement period of each beam of activated TCI states refers to TL1-RSRP\_Measurement\_Period\_CSI-RS as specified in table 9.5.4.2-1 or 9.5.4.2-2 assuming TReport. = 0, and TCSI-RS is the periodicity of the reference signal in the activated TCI states.
* the L1-RSRP measurement period of the new beam refers to TL1-RSRP\_Measurement\_Period\_CSI-RS as specified in table 9.5.4.2-1 or 9.5.4.2-2 assuming TReport. = 0, and TCSI-RS is the periodicity of the the reference signal configured by the *newBeamResourceSet-r19* for new beams.

Tfirst UL channel is from the time point at RS which triggered the L1 reporting to the time point at next PUCCH transmission occasion

Otherwise, if *eventDetectionTimeWindowLength-r19* is provided, the event triggered measurement reporting delay shall be no larger than (*eventInstanceCount-r19* + L) \* TL1-meas\_basic + Tfirst UL channel, where

- *eventInstanceCount-r19* is configured by the network

- TL1-meas\_basic is the measurment period above based on the configuration,

- L is the number of measurement instances (TL1-meas\_basic) that do not satisfy the event condition, counted after the event counter is started and before the required number of events (eventInstanceCount-r19) are detected within the specified time window (*eventDetectionTimeWindowLength-r19*).

- The above requriement is applicable when *eventDetectionTimeWindowLength-r19* is not less than (*eventInstanceCount-r19* + L-1) \* TL1-meas\_basic . The requirement does not apply when *eventDetectionTimeWindowLength-r19* is less than (*eventInstanceCount-r19* + L-1) \* TL1-meas\_basic.

----------------------------------------End Change #1-------------------------