**3GPP TSG-WG2 #131 *R2-25xxxxx***

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

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.306** | **CR** | **Draft** | **rev** | **-** | **Current version:** | **18.6.0** |  |
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| *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 | **x** | Core Network | **x** |

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| ***Title:***  | Introduction of UE capability for network energy saving enhancement in TS 38.306 |
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| ***Source to WG:*** | ZTE Corporation, Sanechips |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | Netw\_Energy\_NR\_enh-Core |  | ***Date:*** | 2025-09-02 |
|  |  |  |  |  |
| ***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 canbe 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:*** | Introduction of UE capability for network energy saving enhancement in TS 38.306 |
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| ***Summary of change:*** | Introduction of UE capability for network energy saving enhancement in TS 38.306 based on the following agreements:RAN2#129 Agreement：* A new UE capability is added for R19 NES paging enhancement, and the new capability is included in UE-RadioPagingInfo. FFS on whether we have a common capability for all NES features.
* Use a “container” using OCTET STRING with content generated by UE when new UE Radio Paging Capabilities are introduced. This is applicable only to new Rel-19 and future capabilities added to paging capabilities. This will only work for Rel-19 Gnb

RAN2#130 Agreement：* The capability for paging adaption to be included in UE-RadioPagingInfo is a separate capability from other NES features and no need to define a common capability for all NES features.
* Use a “container” using OCTET STRING with content generated by UE for paging adaption capability.
* The paging adaption capability is per UE.
* Introduce new capability for R19 PEI in NES and follow the existing PEI capability definition to have this new capability per band.

RAN2#131 Agreement：* The OD-SIB1 capability is defined as optional with capability signaling to assist the dedicated reselection priority configuration at network side.
* OD-SIB1 capability is not included into paging container.
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| ***Consequences if not approved:*** | UE capability for network energy saving enhancement in TS 38.306 is not captured in 38.306. |
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| ***Clauses affected:*** | 4.2.2 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **x** |  |  Other core specifications  | TS 38.331 CR XXXX |
| ***affected:*** |  |  |  Test specifications |  |
| ***(show related CRs)*** |  |  |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

Start of Change

### 4.2.2 General parameters

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| --- | --- | --- | --- | --- |
| ***Definitions for parameters*** | Per | M | FDD-TDD DIFF | FR1-FR2DIFF |
| Unrelated part omitted |
| ***onDemandSIB-Connected-r16***Indicates whether the UE supports the on-demand request procedure of SIB(s) or posSIB(s) while in RRC\_CONNECTED, as specified in TS 38.331 [9]. | UE | No | No | No |
| ***onDemandSIB1-r19***Indicates whether the UE supports the on-demand request procedure of SIB1 as specified in TS 38.331 [9]. |  UE | No | No | No |
| ***overheatingInd***Indicates whether the UE supports overheating assistance information. | UE | No | No | No |
| ***pagingAdaptation-r19***Indicates whether the UE supports paging adaption, in which the value range for parameter N and Ns as defined in TS 38.331[9] are extended to make it possible to have increased interval between Paging Frames and compensate the decrease in the number of Paging Frames. | UE | No | No | No |
| ***pagingAdaptionPEI-SupportBandList-r19***Indicates whether the UE supports receiving paging early indication in DCI format 2\_7 as specified in TS 38.304 [21] for a list of frequency band for paging adaption. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of paging early indication reception for the frequency band. The set of OFDM symbols within a slot where UE can monitor the PEI PDCCH in Type 2A CSS is the same as the requirement for paging PDCCH in Type 2 CSS for IDLE and INACTIVE mode UEs.A UE supporting this feature shall also indicate support of *pagingAdaptation-r19*. | UE | No | No | No |
| ***pei-SubgroupingSupportBandList-r17***Indicates whether the UE supports receiving paging early indication in DCI format 2\_7 as specified in TS 38.304 [21] for a list of frequency band. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of paging early indication reception for the frequency band. The set of OFDM symbols within a slot where UE can monitor the PEI PDCCH in Type 2A CSS is the same as the requirement for paging PDCCH in Type 2 CSS for IDLE and INACTIVE mode UEs. | UE | No | No | No |
|  |  |  |  |  |
| ***partialFR2-FallbackRX-Req***Indicates whether the UE meets only a partial set of the UE minimum receiver requirements for the eligible FR2 fallback band combinations as defined in Clause 4.2 of TS 38.101-2 [3] and Clause 4.2 of TS 38.101-3 [4]. If not indicated, the UE shall meet all the UE minimum receiver requirements for all the FR2 fallback combinations in TS 38.101-2 [3] and TS 38.101-3 [4]. The UE shall support configuration of any of the FR2 fallback band combinations regardless of the presence or the absence of this field. | UE | No | No | No |
| ***ra-InsteadCG-SDT-r18***Indicates whether the UE supports the selection of RACH resources instead of configured grant type 1 resource when triggering resume for MO-SDT or MT-SDT and next configured grant type 1 resource is too far, as specified in TS 38.331 [9].A UE supporting this feature shall also indicate the support of *cg-SDT-r17,* or *mt-CG-SDT-r18.* | UE | No | No | No |
| Unrelated part omitted |

End of Change

# Anex: RAN2 UE capability feature list

According to the following agreements made in RAN2#129bis (R2-2502767), RAN2 determined UE capabilities in the feature list format for TR 38.822 is included.

The 306 CRs shall include an annex containing the RAN2 determined UE capabilities in the feature list format (similar to annex containing RAN2 agreements), for easy compilation into the TR38.822 in the later stage (as agreed in RAN2 #116-e). The annex of RAN2 determined UE capabilities feature list should align with field description.

### 8.x.x Netw\_Energy\_NR\_enh-Core

Table 8.2.x-1: Layer-2 and Layer-3 feature list for Netw\_Energy\_NR\_enh-Core

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Features | Index | Feature group | Components | Prerequisite feature groups | Field name in TS 38.331 [2] | Parent IE in TS 38.331 [2] | Need of FDD/TDD differentiation | Need of FR1/FR2 differentiation | Note | Mandatory/Optional |
| X. Netw\_Energy\_NR\_enh-Core | x-1 | Paginng adaption with increased interval between Paging Frames | Indicates whether the UE supports paging adaption, in which the value range for parameter N and Ns as defined in TS 38.331[2] are extended to make it possible to have increased interval between Paging Frames and compensate the decrease in the number of Paging Frames. | x-1 | *pagingAdaptation-r19*  | *UE-RadioPagingInfo-r19* | No | No |  | Optional with capability signalling |
| X. Netw\_Energy\_NR\_enh-Core | x-1a | Paginng adaption with increased interval between Paging Frames | Indicates whether the UE supports receiving paging early indication in DCI format 2\_7 as specified in TS 38.304 [21] for a list of frequency band for paging adaption. The UE shall support UEID based subgrouping for a frequency band if it indicates supporting of paging early indication reception for the frequency band. The set of OFDM symbols within a slot where UE can monitor the PEI PDCCH in Type 2A CSS is the same as the requirement for paging PDCCH in Type 2 CSS for IDLE and INACTIVE mode UEs.A UE supporting this feature shall also indicate support of *pagingAdaptation-r19*. | x-1 | *pagingAdaptionPEI-SupportBandList-r19* | *UE-RadioPagingInfo-r19* | No | No |  | Optional with capability signalling |
| X. Netw\_Energy\_NR\_enh-Core | x-2 | On demand SIB1 request for UEs in RRC\_IDLE, RRC\_INACTIVE and RRC\_CONNECTED when T311 is running | Indicates whether the UE supports the on-demand request procedure of SIB1 as specified in TS 38.331 [9]. | x-2 | *onDemandSIB1-r19* | *UE-NR-Capability-v19xy* | No | No | RAN1 define it as Optional without capability signalling in the feature list (R1-2504673) while RAN2 further revise and reach the agreement in RAN2#131 to define it as Optional with capability signalling. | Optional with capability signalling |