**3GPP TSG-CT WG1 Meeting #133-eRev\_C1-216889**

**E-meeting, 11-19 November 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **24.501** | **CR** | **3786** | **rev** | **1** | **Current version:** | **17.4.1** |  |
|  | | | | | | | | |
| *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 | **X** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Paging Subgrouping | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple | | | | | | | | | |
| ***Source to TSG:*** | C1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_UE\_pow\_sav\_enh, 5GProtoc17 | | | | |  | ***Date:*** | | | 2021/10/24 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | RAN2 is introducing paging subgrouping as part of new Rel-17 work-item in RP-200938. SA2 has agreed stage-2 CRs in support of Paging early indication and paging subgrouping (CR#3319 for TS 23.501) and (CR#3216 for TS 23.502).  Stage-3 support needs to be provided for the same. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Support for Paging early indication and paging subgrouping in NR | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Missing stage-3 support for paging subgrouping. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 8.2.7.1, 8.2.7.Y, 9.11.3.1, 9.11.3.X | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **Y** |  | Other core specifications | | | | TS/TR 23.501 CR 3319 | | |
| ***affected:*** | | **Y** |  | Test specifications | | | | TS/TR 23.502 CR 3216 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\*\*\* First change \*\*\*

### 8.2.7 Registration accept

#### 8.2.7.1 Message definition

The REGISTRATION ACCEPT message is sent by the AMF to the UE. See table 8.2.7.1.1.

Message type: REGISTRATION ACCEPT

Significance: dual

Direction: network to UE

Table 8.2.7.1.1: REGISTRATION ACCEPT message content

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| IEI | Information Element | Type/Reference | Presence | Format | Length |
|  | Extended protocol discriminator | Extended protocol discriminator  9.2 | M | V | 1 |
|  | Security header type | Security header type  9.3 | M | V | 1/2 |
|  | Spare half octet | Spare half octet  9.5 | M | V | 1/2 |
|  | Registration accept message identity | Message type  9.7 | M | V | 1 |
|  | 5GS registration result | 5GS registration result  9.11.3.6 | M | LV | 2 |
| 77 | 5G-GUTI | 5GS mobile identity  9.11.3.4 | O | TLV-E | 14 |
| 4A | Equivalent PLMNs | PLMN list  9.11.3.45 | O | TLV | 5-47 |
| 54 | TAI list | 5GS tracking area identity list  9.11.3.9 | O | TLV | 9-114 |
| 15 | Allowed NSSAI | NSSAI  9.11.3.37 | O | TLV | 4-74 |
| 11 | Rejected NSSAI | Rejected NSSAI  9.11.3.46 | O | TLV | 4-42 |
| 31 | Configured NSSAI | NSSAI  9.11.3.37 | O | TLV | 4-146 |
| 21 | 5GS network feature support | 5GS network feature support  9.11.3.5 | O | TLV | 3-5 |
| 50 | PDU session status | PDU session status  9.11.3.44 | O | TLV | 4-34 |
| 26 | PDU session reactivation result | PDU session reactivation result  9.11.3.42 | O | TLV | 4-34 |
| 72 | PDU session reactivation result error cause | PDU session reactivation result error cause  9.11.3.43 | O | TLV-E | 5-515 |
| 79 | LADN information | LADN information  9.11.3.30 | O | TLV-E | 12-1715 |
| B- | MICO indication | MICO indication  9.11.3.31 | O | TV | 1 |
| 9- | Network slicing indication | Network slicing indication  9.11.3.36 | O | TV | 1 |
| 27 | Service area list | Service area list  9.11.3.49 | O | TLV | 6-114 |
| 5E | T3512 value | GPRS timer 3  9.11.2.5 | O | TLV | 3 |
| 5D | Non-3GPP de-registration timer value | GPRS timer 2  9.11.2.4 | O | TLV | 3 |
| 16 | T3502 value | GPRS timer 2  9.11.2.4 | O | TLV | 3 |
| 34 | Emergency number list | Emergency number list  9.11.3.23 | O | TLV | 5-50 |
| 7A | Extended emergency number list | Extended emergency number list  9.11.3.26 | O | TLV-E | 7-65538 |
| 73 | SOR transparent container | SOR transparent container  9.11.3.51 | O | TLV-E | 20-n |
| 78 | EAP message | EAP message  9.11.2.2 | O | TLV-E | 7-1503 |
| A- | NSSAI inclusion mode | NSSAI inclusion mode  9.11.3.37A | O | TV | 1 |
| 76 | Operator-defined access category definitions | Operator-defined access category definitions  9.11.3.38 | O | TLV-E | 3-8323 |
| 51 | Negotiated DRX parameters | 5GS DRX parameters  9.11.3.2A | O | TLV | 3 |
| D- | Non-3GPP NW policies | Non-3GPP NW provided policies  9.11.3.36A | O | TV | 1 |
| 60 | EPS bearer context status | EPS bearer context status  9.11.3.23A | O | TLV | 4 |
| 6E | Negotiated extended DRX parameters | Extended DRX parameters  9.11.3.26A | O | TLV | 3 |
| 6C | T3447 value | GPRS timer 3  9.11.2.5 | O | TLV | 3 |
| 6B | T3448 value | GPRS timer 2  9.11.2.4 | O | TLV | 3 |
| 6A | T3324 value | GPRS timer 3  9.11.2.5 | O | TLV | 3 |
| 67 | UE radio capability ID | UE radio capability ID  9.11.3.68 | O | TLV | 3-n |
| E- | UE radio capability ID deletion indication | UE radio capability ID deletion indication  9.11.3.69 | O | TV | 1 |
| 39 | Pending NSSAI | NSSAI  9.11.3.37 | O | TLV | 4-146 |
| 74 | Ciphering key data | Ciphering key data  9.11.3.18C | O | TLV-E | 34-n |
| 75 | CAG information list | CAG information list  9.11.3.18A | O | TLV-E | 3-n |
| 1B | Truncated 5G-S-TMSI configuration | Truncated 5G-S-TMSI configuration  9.11.3.70 | O | TLV | 3 |
| 1C | Negotiated WUS assistance information | WUS assistance information  9.11.3.71 | O | TLV | 3-n |
| 29 | Negotiated NB-N1 mode DRX parameters | NB-N1 mode DRX parameters  9.11.3.73 | O | TLV | 3 |
| 68 | Extended rejected NSSAI | Extended rejected NSSAI  9.11.3.75 | O | TLV | 5-90 |
| 7C | Service-level-AA container | Service-level-AA container  9.11.2.10 | O | TLV-E | 6-n |
| TBD | Negotiated PEIPS assistance information | PEIPS assistance information  9.11.3.X | O | TLV | 3-n |

\*\*\* Next change \*\*\*

#### 8.2.7.Y Negotiated PEIPS assistance information

The network shall include the Negotiated PEIPS assistance information IE if:

- the UE supports NR paging subgrouping;

- the AMF supports and accepts the use of PEIPS assistance information for the UE; and

- the UE is not performing initial registration for emergency services and does not have an active emergency PDU session.

\*\*\* Next change \*\*\*

#### 9.11.3.1 5GMM capability

The purpose of the 5GMM capability information element is to provide the network with information concerning aspects of the UE related to the 5GCN or interworking with the EPS. The contents might affect the manner in which the network handles the operation of the UE.

The 5GMM capability information element is coded as shown in figure 9.11.3.1.1 and table 9.11.3.1.1.

The 5GMM capability is a type 4 information element with a minimum length of 3 octets and a maximum length of 15 octets.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | | 7 | | 6 | | 5 | | 4 | | 3 | | 2 | | 1 | |  | |
| 5GMM capability IEI | | | | | | | | | | | | | | | | octet 1 | |
| Length of 5GMM capability contents | | | | | | | | | | | | | | | | octet 2 | |
| SGC | | 5G-IPHC-CP CIoT | | N3 data | | 5G-CP CIoT | | RestrictEC | | LPP | | HO attach | | S1 mode | | octet 3 | |
| RACS | | NSSAA | | 5G-LCS | | V2XCNPC5 | | V2XCEPC5 | | V2X | | 5G-UP CIoT | | 5GSRVCC | | octet 4\* | |
| ProSe-l2relay | | ProSe-dc | | ProSe-dd | | ER-NSSAI | | 5G-EHC-CP CIoT | | multipleUP | | WUSA | | CAG | | octet 5\* | |
| 0 0 0 0 | | | | | | | | NR-PSSI | | ProSe-l3rmt | | ProSe-l2rmt | | ProSe-l3relay | | octet 6\* | |
| Spare | | | | | | | |  | |
| 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | octet 7\*-15\* | |
| Spare | | | | | | | | | | | | | | | |

Figure 9.11.3.1.1: 5GMM capability information element

Table 9.11.3.1.1: 5GMM capability information element

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| EPC NAS supported (S1 mode) (octet 3, bit 1) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | |  | | | | | |  | | | | | |  | | | | | | S1 mode not supported | | | |
| 1 | | |  | | | | | |  | | | | | |  | | | | | | S1 mode supported | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| ATTACH REQUEST message containing PDN CONNECTIVITY REQUEST message for handover support (HO attach) (octet 3, bit 2) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | |  | | | | |  | | | | | |  | | | | | | ATTACH REQUEST message containing PDN CONNECTIVITY REQUEST message with request type set to "handover" or "handover of emergency bearer services" to transfer PDU session from N1 mode to S1 mode not supported | | | | | |
| 1 | |  | | | | |  | | | | | |  | | | | | | ATTACH REQUEST message containing PDN CONNECTIVITY REQUEST message with request type set to "handover" or "handover of emergency bearer services" to transfer PDU session from N1 mode to S1 mode supported | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| LTE Positioning Protocol (LPP) capability (octet 3, bit 3) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | |  | | | | | |  | | | | | |  | | | | | | LPP in N1 mode not supported | | | |
| 1 | | |  | | | | | |  | | | | | |  | | | | | | LPP in N1 mode supported (see 3GPP TS 36.355 [26]) | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Restriction on use of enhanced coverage support (RestrictEC) (octet 3, bit 4)  This bit indicates the capability to support restriction on use of enhanced coverage. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | |  | | | | | |  | | | | | |  | | | | | | Restriction on use of enhanced coverage not supported | | |
| 1 | | | |  | | | | | |  | | | | | |  | | | | | | Restriction on use of enhanced coverage supported | | |
| Control plane CIoT 5GS optimization (5G-CP CIoT) (octet 3, bit 5)  This bit indicates the capability for control plane CIoT 5GS optimization. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 |  | | | | | | |  | | | | | |  | | | | | | Control plane CIoT 5GS optimization not supported | | | | |
| 1 |  | | | | | | |  | | | | | |  | | | | | | Control plane CIoT 5GS optimization supported | | | | |
| N3 data transfer (N3 data) (octet 3, bit 6)  This bit indicates the capability for N3 data transfer. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 |  | | | | | | |  | | | | | |  | | | | | | N3 data transfer supported | | | | |
| 1 |  | | | | | | |  | | | | | |  | | | | | | N3 data transfer not supported | | | | |
| IP header compression for control plane CIoT 5GS optimization (5G-IPHC-CP CIoT) (octet 3, bit 7)  This bit indicates the capability for IP header compression for control plane CIoT 5GS optimization. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 |  | | | | | | |  | | | | | |  | | | | | | IP header compression for control plane CIoT 5GS optimization not supported | | | | |
| 1 |  | | | | | | |  | | | | | |  | | | | | | IP header compression for control plane CIoT 5GS optimization supported | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Service gap control (SGC) (octet 3, bit 8) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | |  | | | | | |  | | | | | |  | | | | | | service gap control not supported | | | |
| 1 | | |  | | | | | |  | | | | | |  | | | | | | service gap control supported | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| 5G-SRVCC from NG-RAN to UTRAN (5GSRVCC) capability (octet 4, bit 1) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | |  | | | | | |  | | | | | |  | | | | | | 5G-SRVCC from NG-RAN to UTRAN not supported | | | |
| 1 | | |  | | | | | |  | | | | | |  | | | | | | 5G-SRVCC from NG-RAN to UTRAN supported (see 3GPP TS 23.216 [6A]) | | | |
| User plane CIoT 5GS optimization (5G-UP CIoT) (octet 4, bit 2)  This bit indicates the capability for user plane CIoT 5GS optimization. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 |  | | | | | | |  | | | | | |  | | | | | | User plane CIoT 5GS optimization not supported | | | | |
| 1 |  | | | | | | |  | | | | | |  | | | | | | User plane CIoT 5GS optimization supported | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| V2X capability (V2X) (octet 4, bit 3) | | | | | | | | | | | | | | | | | | | | | | | | |
| This bit indicates the capability for V2X, as specified in 3GPP TS 24.587 [19B].  Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | |  | | | | |  | | | | | |  | | | | | |  | | | | | |
| 0 | |  | | | | |  | | | | | |  | | | | | | V2X not supported | | | | | |
| 1 | |  | | | | |  | | | | | |  | | | | | | V2X supported | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| V2X communication over E-UTRA-PC5 capability (V2XCEPC5) (octet 4, bit 4) | | | | | | | | | | | | | | | | | | | | | | | | |
| This bit indicates the capability for V2X communication over E-UTRA-PC5, as specified in 3GPP TS 24.587 [19B]. | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | |  | | | | |  | | | | | |  | | | | | |  | | | | | |
| 0 | |  | | | | |  | | | | | |  | | | | | | V2X communication over E-UTRA-PC5 not supported | | | | | |
| 1 | |  | | | | |  | | | | | |  | | | | | | V2X communication over E-UTRA-PC5 supported | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | V2X communication over NR-PC5 capability (V2XCNPC5) (octet 4, bit 5) | | | | | | This bit indicates the capability for V2X communication over NR-PC5, as specified in 3GPP TS 24.587 [19B]. | | | | | | Bit | | | | | | 5 |  |  |  |  | | 0 |  |  |  | V2X communication over NR-PC5 not supported | | 1 |  |  |  | V2X communication over NR-PC5 supported | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Location Services (5G-LCS) notification mechanisms capability (octet 4, bit 6) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | |  | | | | | |  | | | | | |  | | | | | | LCS notification mechanisms not supported |
| 1 | | | | | |  | | | | | |  | | | | | |  | | | | | | LCS notification mechanisms supported (see 3GPP TS 23.273 [6B]) |
| Network slice-specific authentication and authorization (NSSAA) (octet 4, bit 7)  This bit indicates the capability to support network slice-specific authentication and authorization. | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | |  | | | | | |  | | | | | |  | | | | | | Network slice-specific authentication and authorization not supported |
| 1 | | | | | |  | | | | | |  | | | | | |  | | | | | | Network slice-specific authentication and authorization supported |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Radio capability signalling optimisation (RACS) capability (octet 4, bit 8) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | | | | | |  | | | | | |  | | | | | |  | | | | | | RACS not supported |
| 1 | | | | | |  | | | | | |  | | | | | |  | | | | | | RACS supported |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Closed Access Group (CAG) capability (octet 5, bit 1) | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 CAG not supported  1 CAG supported  WUS assistance (WUSA) information reception capability (octet 5, bit 2)  0 WUS assistance information reception not supported  1 WUS assistance information reception supported | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple user-plane resources support (multipleUP) (octet 5, bit 3) | | | | | | | | | | | | | | | | | | | | | | | | |
| This bit indicates the capability to support multiple user-plane resources in NB-N1 mode. | | | | | | | | | | | | | | | | | | | | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 0 |  |  |  | Multiple user-plane resources not supported | | 1 |  |  |  | Multiple user-plane resources supported | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethernet header compression for control plane CIoT 5GS optimization (5G-EHC-CP CIoT) (octet 5, bit 4)  0 Ethernet header compression for control plane CIoT 5GS optimization not supported  1 Ethernet header compression for control plane CIoT 5GS optimization supported | | | | | | | | | | | | | | | | | | | | | | | | |
| Extended rejected NSSAI support (ER-NSSAI) (octet 5, bit 5) | | | | | | | | | | | | | | | | | | | | | | | | |
| This bit indicates the capability to support extended rejected NSSAI. | | | | | | | | | | | | | | | | | | | | | | | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 0 |  |  |  | Extended rejected NSSAI not supported | | 1 |  |  |  | Extended rejected NSSAI supported | | | | | | | | | | | | | | | | | | | | | | | | | |
| ProSe direct discovery (ProSe-dd) (octet 5, bit 6)  This bit indicates the capability for ProSe direct discovery.  Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | |  | | | | |  | | | | | |  | | | | | |  | | | | | |
| 0 | |  | | | | |  | | | | | |  | | | | | | ProSe direct discovery not supported | | | | | |
| 1 | |  | | | | |  | | | | | |  | | | | | | ProSe direct discovery supported | | | | | |
| ProSe direct communication (ProSe-dc) (octet 5, bit 7)  This bit indicates the capability for ProSe direct communication.   |  | | --- | | Bit | | |  |  |  |  |  | | --- | --- | --- | --- | --- | | 7 |  |  |  |  | | 0 |  |  |  | ProSe direct communication not supported | | 1 |  |  |  | ProSe direct communication supported | |   ProSe Layer-2 UE-to-network-relay (ProSe-l2relay) (octet 5, bit 8)  This bit indicates the capability to act as a layer-2 ProSe UE-to-network relay | | | | | | | | | | | | | | | | | | | | | | | | |
| Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | |  | | | | |  | | | | | |  | | | | | |  | | | | | |
| 0 | |  | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-2 UE-to-network relay not supported | | | | | |
| 1 | |  | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-2 UE-to-network relay supported | | | | | |
| ProSe Layer-3 UE-to-network-relay (ProSe-l3relay) (octet 6, bit 1)  This bit indicates the capability to act as a layer-3 ProSe UE-to-network relay  Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | |  | | | | | |  | | | | | |  | | | | | |  | |
| 0 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-3 UE-to-network relay not supported | |
| 1 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-3 UE-to-network relay supported | |
| ProSe Layer-2 UE-to-network-remote (ProSe-l2rmt) (octet 6, bit 2)  This bit indicates the capability to act as a layer-2 ProSe UE-to-network remote UE  Bit | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | | | |  | | | | | |  | | | | | |  | | | | | |  | |
| 0 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-2 UE-to-network remote UE not supported | |
| 1 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-2 UE-to-network remote UE supported | |
| ProSe Layer-3 UE-to-network-remote (ProSe-l3rmt) (octet 6, bit 3)  This bit indicates the capability to act as a layer-3 ProSe UE-to-network remote UE | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | |  | | | | | |  | | | | | |  | | | | | |  | |
| 0 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-3 UE-to-network remote UE not supported | |
| 1 | | | | |  | | | | | |  | | | | | |  | | | | | | Acting as a ProSe layer-3 UE-to-network remote UE supported | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| NR paging subgroup support indication (NR-PSSI) (octet 6, bit X) | | | | | | | | | | | | | | | | | | | | | | | | |
| This bit indicates the capability to support NR paging subgrouping | | | | | | | | | | | | | | | | | | | | | | | | |
| X | | | | |  | | | | | |  | | | | | |  | | | | | |  | |
| 0 | | | | |  | | | | | |  | | | | | |  | | | | | | NR paging subgrouping not supported | |
| 1 | | | | |  | | | | | |  | | | | | |  | | | | | | NR paging subgrouping supported | |
| bits Y-8 in octet 6 and bits in octets 7 to 15 are spare and shall be coded as zero, if the respective octet is included in the information element. | | | | | | | | | | | | | | | | | | | | | | | | |

\*\*\* Next change \*\*\*

#### 9.11.3.X PEIPS assistance information

The purpose of the PEIPS assistance information, information element is to transfer the required assistance information to indicate the paging subgroup used when paging the UE.

The coding of the information element allows combining different types of PEIPS assistance information.

The PEIPS assistance information, information element is coded as shown in figure 9.11.3.X.1, figure 9.11.3.X.2 and table 9.11.3.X.1.

The PEIPS assistance information is a type 4 information element, with a minimum length of 3 octets.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |  |
| PEIPS assistance information IEI | | | | | | | | octet 1 |
| Length of PEIPS assistance information contents | | | | | | | | octet 2 |
| PEIPS assistance information type 1 | | | | | | | | octet 3  octet i |
| PEIPS assistance information type 2 | | | | | | | | octet i+1\*  octet l\* |
| … | | | | | | | | octet l+1\*  octet m\* |
| PEIPS assistance information type p | | | | | | | | octet m+1\*  octet n\* |

Figure 9.11.3.X.1: PEIPS assistance information information element

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 8 | 7 | 6 | | 5 | 4 | 3 | 2 | 1 | |  | |
| Type of information | | | | Paging subgroup ID value | | | | | | octet 1 | |

Figure 9.11.3.X.2: PEIPS assistance information type –type of information= "000"

Table 9.11.3.X.1: PEIPS assistance information information element

|  |  |  |  |
| --- | --- | --- | --- |
| Value part of the PEIPS assistance information information element (octets 3 to n) | | | |
|  | | | |
| The value part of the PEIPS assistance information information element consists of one or several types of PEIPS assistance information. | | | |
|  | | | |
| PEIPS assistance information type: | | | |
|  | | | |
| Type of information (octet 1, bits 6-8) | | | |
| Bits | | | |
| 8 | 7 | 6 |  |
| 0 | 0 | 0 | Paging subgroup ID |
|  | | | |
| All other values are reserved. | | | |
|  | | | |
| Paging subgroup ID value: (octet 1, bits 1-5) | | | |
| This field contains the value (in decimal) of paging subgroup ID that is assigned by the AMF for paging the UE. This field has a valid range of values from (0-7). All other values are reserved and shall be interpreted as 0 by this version of the protocol. | | | |

Editor’s Note: The exact range to be used for paging subgroup ID is FFS.

\*\*\* end of change \*\*\*