**3GPP TSG-RAN WG3 Meeting #119b-e *R3-231963***

**Online, 17th – 26th April, 2023**

**Title:** (TP to 38.473) Introduction on NR Redcap enhancement

**Source:** Huawei, ZTE, Nokia, Nokia Shanghai Bell

**Agenda item:** 21.2

**Document Type:** Discussion

# Introduction

Include the following agreement into the TS38.473

F1AP agreements:

**Extend the *NR Paging eDRX Information for RRC INACTIVE* IE F1AP 9.3.1.259:**

* **add new codepoints in the *NR Paging eDRX Cycle Inactive* IE: ENUMERATED (hfquarter, hfhalf, hf1, …,hf2, hf4, hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024)**
* **add the *NR Paging Time Window* IE ENUMERATED (s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s13, s14, s15, s16, s17, s18, s19, s20, s21, s22, s23, s24, s25, s26, s27, s28, s29, s30, s31, s32,…)**

# Text proposal for TS 38.473

***------Start of the first change-------***

9.3.1.259 NR Paging eDRX Information for RRC INACTIVE

This IE indicates the NR Paging eDRX parameters for RRC\_INACTIVE as defined in TS 38.304 [24].

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **IE/Group Name** | **Presence** | **Range** | **IE type and reference** | **Semantics description** | **Criticality** | **Assigned Criticality** |
| NR Paging eDRX Cycle Inactive | M |  | ENUMERATED (hfquarter, hfhalf, hf1, …, hf2, hf4, hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024) | TeDRX,RAN defined in TS 38.304 [24]. Unit: [number of hyperframes]. |  |  |
| NR Paging Time Window Inactive | O |  | ENUMERATED (s1, s2, s3, s4, s5, s6, s7, s8, s9, s10, s11, s12, s13, s14, s15, s16, s17, s18, s19, s20, s21, s22, s23, s24, s25, s26, s27, s28, s29, s30, s31, s32,…) | Unit: [1.28 second]. | YES | ignore |

***-----------------Start of the next Change-------------------***

9.4.5 Information Element Definitions

-- ASN1START

-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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-- Information Element Definitions

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-- \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

F1AP-IEs {

itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)

ngran-access (22) modules (3) f1ap (3) version1 (1) f1ap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 id-gNB-CUSystemInformation,

 id-HandoverPreparationInformation,

 id-TAISliceSupportList,

 id-RANAC,

 id-BearerTypeChange,

 id-Cell-Direction,

***//skip the unchanged part***

 id-ConfigRestrictInfoDAPS,

 id-MulticastF1UContextReferenceCU,

 id-NRPaging-Time-Window-Inactive,

 id-TwoPHRModeMCG,

 id-TwoPHRModeSCG,

 maxNRARFCN,

 maxnoofErrors,

Editor’s Note: FFS if the NRPaging-time-Window defined in ASN.1 can be re-used instead of a new NRPaging-Time-Window-Inactive

***//skip the unchanged part***

NRPagingeDRXInformation ::= SEQUENCE {

 nrpaging-eDRX-Cycle-Idle NRPaging-eDRX-Cycle-Idle,

 nrpaging-Time-Window NRPaging-Time-Window OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { {NRPagingeDRXInformation-ExtIEs} } OPTIONAL,

 ...

}

NRPagingeDRXInformation-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 ...

}

NRPaging-eDRX-Cycle-Idle ::= ENUMERATED {

 hfquarter, hfhalf, hf1, hf2, hf4,

 hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024,

 ...

}

NRPaging-Time-Window ::= ENUMERATED {

 s1, s2, s3, s4, s5,

 s6, s7, s8, s9, s10,

 s11, s12, s13, s14, s15, s16,

 ...,

 s17, s18, s19, s20, s21,

 s22, s23, s24, s25, s26,

 s27, s28, s29, s30, s31, s32

}

NRPagingeDRXInformationforRRCINACTIVE ::= SEQUENCE {

 nrpaging-eDRX-Cycle-Inactive NRPaging-eDRX-Cycle-Inactive,

 iE-Extensions ProtocolExtensionContainer { { NRPagingeDRXInformationforRRCINACTIVE-ExtIEs} } OPTIONAL,

 ...

}

NRPagingeDRXInformationforRRCINACTIVE-ExtIEs F1AP-PROTOCOL-EXTENSION ::= {

 { ID id-NRPaging-Time-Window-Inactive CRITICALITY ignore EXTENSION NRPaging-Time-Window-Inactive PRESENCE optional},

 ...

}

NRPaging-eDRX-Cycle-Inactive ::= ENUMERATED {

 hfquarter, hfhalf, hf1,

 ...,

 hf2, hf4, hf8, hf16, hf32, hf64, hf128, hf256, hf512, hf1024

}

NRPaging-Time-Window-Inactive ::= ENUMERATED {

 s1, s2, s3, s4, s5,

 s6, s7, s8, s9, s10,

 s11, s12, s13, s14, s15, s16,

 s17, s18, s19, s20, s21, s22,

 s23, s24, s25, s26, s27, s28, s29,

 s30, s31, s32, ...

}

NonDynamic5QIDescriptor ::= SEQUENCE {

 fiveQI INTEGER (0..255, ...),

 qoSPriorityLevel INTEGER (1..127) OPTIONAL,

 averagingWindow AveragingWindow OPTIONAL,

 maxDataBurstVolume MaxDataBurstVolume OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { NonDynamic5QIDescriptor-ExtIEs } } OPTIONAL

}

***//skip the unchanged part***

id-ExtendedUEIdentityIndexValue ProtocolIE-ID ::= 694

id-ServingCellMO-List ProtocolIE-ID ::= 695

id-ServingCellMO-List-Item ProtocolIE-ID ::= 696

id-ServingCellMO-encoded-in-CGC-List ProtocolIE-ID ::= 697

id-NRPaging-Time-Window-Inactive ProtocolIE-ID ::= XXX

END

-- ASN1STOP

***------End of the changes-------***