**3GPP TSG-RAN3 #114bis-e R3-22xxxx**

**17-26 Jan 2022**

**Online**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.413** | **CR** | **1xxx** | **rev** |  | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network | **X** | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | S1AP Rapporteur Corrections | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | R3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17 | | | | |  | ***Date:*** | | | 2021-12-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **D** |  | | | | | ***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:*** | | Rapporteur Corrections | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | * Correct the typo “NTL” * Add ASN1START and ASN1STOP to align with other RAN3 specifications. * replace non-ASCII characters in ASN.1, e.g. change “–” to “-” | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Errors remain in the specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 9.2.3.27, 9.3.2, 9.3.3, 9.3.4, 9.3.5, 9.3.6, 9.3.7, B.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

**<<<<<< START OF CHANGE >>>>>>**

#### 9.2.3.27 SON Information

This IE identifies the nature of the configuration information transferred, i.e., a request, a reply or a report.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| CHOICE *SON Information* | M |  |  |  |  |  |
| *>SON Information Request* |  |  |  |  |  |  |
| >>SON Information Request | M |  | ENUMERATED(X2 TNL Configuration Info, …, Time synchronisation Info, Activate Muting, Deactivate Muting) | In the current version of the specification only "X2 TNL Configuration Info" is applicable for EN-DC. | - |  |
| *>SON Information Reply* |  |  |  |  |  |  |
| >>SON Information Reply | M |  | 9.2.3.28 |  | - |  |
| >*SON Information Report* |  |  |  |  |  |  |
| >>SON Information Report | M |  | 9.2.3.39 |  | YES | ignore |

**<<<<<< NEXT CHANGE >>>>>>**

### 

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.2 Elementary Procedure Definitions

-- ASN1START

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

--

-- Elementary Procedure definitions

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

S1AP-PDU-Descriptions {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-PDU-Descriptions (0)}

<Unaffected part is omitted>

mMEEarlyStatusTransfer S1AP-ELEMENTARY-PROCEDURE ::= {

INITIATING MESSAGE MMEEarlyStatusTransfer

PROCEDURE CODE id-MMEEarlyStatusTransfer

CRITICALITY ignore

}

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.3 PDU Definitions

-- ASN1START

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

--

-- PDU definitions for S1AP.

--

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

S1AP-PDU-Contents {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-PDU-Contents (1) }

<Unaffected part is omitted>

-- Paging

--

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

Paging ::= SEQUENCE {

protocolIEs ProtocolIE-Container {{PagingIEs}},

...

}

PagingIEs S1AP-PROTOCOL-IES ::= {

{ ID id-UEIdentityIndexValue CRITICALITY ignore TYPE UEIdentityIndexValue PRESENCE mandatory}|

{ ID id-UEPagingID CRITICALITY ignore TYPE UEPagingID PRESENCE mandatory}|

{ ID id-pagingDRX CRITICALITY ignore TYPE PagingDRX PRESENCE optional}|

{ ID id-CNDomain CRITICALITY ignore TYPE CNDomain PRESENCE mandatory}|

{ ID id-TAIList CRITICALITY ignore TYPE TAIList PRESENCE mandatory}|

{ ID id-CSG-IdList CRITICALITY ignore TYPE CSG-IdList PRESENCE optional}|

{ ID id-PagingPriority CRITICALITY ignore TYPE PagingPriority PRESENCE optional}|

{ ID id-UERadioCapabilityForPaging CRITICALITY ignore TYPE UERadioCapabilityForPaging PRESENCE optional}|

-- Extension for Release 13 to support Paging Optimisation and Coverage Enhancement paging --

{ ID id-AssistanceDataForPaging CRITICALITY ignore TYPE AssistanceDataForPaging PRESENCE optional}|

{ ID id-Paging-eDRXInformation CRITICALITY ignore TYPE Paging-eDRXInformation PRESENCE optional}|

{ ID id-extended-UEIdentityIndexValue CRITICALITY ignore TYPE Extended-UEIdentityIndexValue PRESENCE optional}|

{ ID id-NB-IoT-Paging-eDRXInformation CRITICALITY ignore TYPE NB-IoT-Paging-eDRXInformation PRESENCE optional}|

{ ID id-NB-IoT-UEIdentityIndexValue CRITICALITY ignore TYPE NB-IoT-UEIdentityIndexValue PRESENCE optional}|

{ ID id-EnhancedCoverageRestricted CRITICALITY ignore TYPE EnhancedCoverageRestricted PRESENCE optional}|

{ ID id-CE-ModeBRestricted CRITICALITY ignore TYPE CE-ModeBRestricted PRESENCE optional}|

{ ID id-DataSize CRITICALITY ignore TYPE DataSize PRESENCE optional}|

{ ID id-WUS-Assistance-Information CRITICALITY ignore TYPE WUS-Assistance-Information PRESENCE optional}|

{ ID id-NB-IoT-PagingDRX CRITICALITY ignore TYPE NB-IoT-PagingDRX PRESENCE optional},

...

}

<Unaffected part is omitted>

UEContextReleaseComplete-IEs S1AP-PROTOCOL-IES ::= {

{ ID id-MME-UE-S1AP-ID CRITICALITY ignore TYPE MME-UE-S1AP-ID PRESENCE mandatory}|

{ ID id-eNB-UE-S1AP-ID CRITICALITY ignore TYPE ENB-UE-S1AP-ID PRESENCE mandatory}|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional}|

-- Extension for Release 12 to support User Location Information --

{ ID id-UserLocationInformation CRITICALITY ignore TYPE UserLocationInformation PRESENCE optional}|

-- Extension for Release 13 to support Paging Optimisation

{ ID id-InformationOnRecommendedCellsAndENBsForPaging CRITICALITY ignore TYPE InformationOnRecommendedCellsAndENBsForPaging PRESENCE optional}|

-- Extension for Release 13 to support coverage enhancement paging --

{ ID id-CellIdentifierAndCELevelForCECapableUEs CRITICALITY ignore TYPE CellIdentifierAndCELevelForCECapableUEs PRESENCE optional}|

{ ID id-SecondaryRATDataUsageReportList CRITICALITY ignore TYPE SecondaryRATDataUsageReportList PRESENCE optional }|

{ ID id-TimeSinceSecondaryNodeRelease CRITICALITY ignore TYPE TimeSinceSecondaryNodeRelease PRESENCE optional },

...

}

<Unaffected part is omitted>

UERadioCapabilityIDMappingResponseIEs S1AP-PROTOCOL-IES ::= {

{ ID id-UERadioCapabilityID CRITICALITY reject TYPE UERadioCapabilityID PRESENCE mandatory }|

{ ID id-UERadioCapability CRITICALITY ignore TYPE UERadioCapability PRESENCE mandatory }|

{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },

...

}

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.4 Information Element Definitions

-- ASN1START

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

--

-- Information Element Definitions

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

S1AP-IEs {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-IEs (2) }

<Unaffected part is omitted>

EN-DCSONConfigurationTransfer ::= SEQUENCE {

transfertype EN-DCSONTransferType,

sONInformation SONInformation,

x2TNLConfigInfo X2TNLConfigurationInfo OPTIONAL,

-- This IE shall be present if the SON Information IE contains the SON Information Request IE and the SON Information Request IE is set to "X2TNL Configuration Info" --

iE-Extensions ProtocolExtensionContainer { {EN-DCSONConfigurationTransfer-ExtIEs} } OPTIONAL,

...

}

<Unaffected part is omitted>

E-RABQoSParameters-ExtIEs S1AP-PROTOCOL-EXTENSION ::= {

-- Extended for introduction of downlink and uplink packet loss rate for enhanced Voice performance --

{ ID id-DownlinkPacketLossRate CRITICALITY ignore EXTENSION Packet-LossRate PRESENCE optional}|

{ ID id-UplinkPacketLossRate CRITICALITY ignore EXTENSION Packet-LossRate PRESENCE optional},

...

}

<Unaffected part is omitted>

M6Configuration ::= SEQUENCE {

m6report-Interval M6report-Interval,

m6delay-threshold M6delay-threshold OPTIONAL,

-- This IE shall be present if the M6 Links to log IE is set to "uplink" or to "both-uplink-and-downlink" --

m6-links-to-log Links-to-log,

iE-Extensions ProtocolExtensionContainer { { M6Configuration-ExtIEs} } OPTIONAL,

...

}

<Unaffected part is omitted>

SONConfigurationTransfer-ExtIEs S1AP-PROTOCOL-EXTENSION ::= {

-- Extension for Release 10 to transfer the IP addresses of the eNB initiating the ANR action --

{ID id-x2TNLConfigurationInfo CRITICALITY ignore EXTENSION X2TNLConfigurationInfo PRESENCE conditional

-- This IE shall be present if the SON Information IE contains the SON Information Request IE and the SON Information Request IE is set to "X2TNL Configuration Info" --}|

-- Extension for Release 12 to transfer information concerning the source cell of synchronisation and the aggressor cell --

{ID id-Synchronisation-Information CRITICALITY ignore EXTENSION SynchronisationInformation PRESENCE conditional

-- This IE shall be present if the SON Information IE contains the SON Information Request IE set to " Activate Muting " --},

...

}

<Unaffected part is omitted>

TraceActivation-ExtIEs S1AP-PROTOCOL-EXTENSION ::= {

-- Extension for Rel-10 to support MDT --

{ ID id-MDTConfiguration CRITICALITY ignore EXTENSION MDT-Configuration PRESENCE optional }|

-- Extension for Rel-15 to support QMC --

{ ID id-UEAppLayerMeasConfig CRITICALITY ignore EXTENSION UEAppLayerMeasConfig PRESENCE optional }|

{ ID id-MDTConfigurationNR CRITICALITY ignore EXTENSION MDT-ConfigurationNR PRESENCE optional }|

{ ID id-TraceCollectionEntityURI CRITICALITY ignore EXTENSION URI-Address PRESENCE optional },

...

}

<Unaffected part is omitted>

-- Y

-- Z

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.5 Common Definitions

-- ASN1START

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

--

-- Common definitions

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

S1AP-CommonDataTypes {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-CommonDataTypes (3) }

<Unaffected part is omitted>

TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome }

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.6 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

--

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

S1AP-Constants {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-Constants (4) }

<Unaffected part is omitted>

id-UERadioCapabilityForPaging-NR-Format ProtocolIE-ID ::= 327

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

### 9.3.7 Container Definitions

-- ASN1START

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

--

-- Container definitions

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

S1AP-Containers {

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

eps-Access (21) modules (3) s1ap (1) version1 (1) s1ap-Containers (5) }

<Unaffected part is omitted>

PrivateIE-Field {S1AP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {

id S1AP-PRIVATE-IES.&id ({IEsSetParam}),

criticality S1AP-PRIVATE-IES.&criticality ({IEsSetParam}{@id}),

value S1AP-PRIVATE-IES.&Value ({IEsSetParam}{@id})

}

END

-- ASN1STOP

**<<<<<< NEXT CHANGE >>>>>>**

# B.2ASN.1 definition

-- ASN1START

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

--

-- IE definitions for the SON Transfer application

-- The IEs in this ASN.1 module shall be defined and encoded

-- using the same rules as applicable for the S1AP-IEs module.

--

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

SonTransfer-IEs

<Unaffected part is omitted>

maxnoofIRATReportingCells INTEGER ::= 128

maxnoofcandidateCells INTEGER ::= 16

maxnoofCellineNB INTEGER ::= 256

END

-- ASN1STOP

**<<<<<< END OF CHANGE >>>>>>**