**3GPP TSG-RAN WG3 Meeting #116-e R3-223990**

**, 9th – 19th**

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| --- |
| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **38.423** | **CR** |  **0850** | **rev** | **-** | **Current version:** | **17.0.0** |  |
|  |
| *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 |  |

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| --- |
|  |
| ***Title:***  | SL Relay corrections over Xn |
|  |  |
| ***Source to WG:*** | Ericsson |
| ***Source to TSG:*** | RAN3 |
|  |  |
| ***Work item code:*** | NR\_SL\_Relay |  | ***Date:*** | 2022-05-17 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
|  |  |
| ***Reason for change:*** | A set of IEs have been introduced to support Sidelink Relay in Rel-17. One of them is the 5G ProSe UE PC5 Aggregate Maximum Bit Rate IE, which refers to NR Sidelink UE AMBR in the tabular, however in ASN.1 it points to a newly defined information element. |
|  |  |
| ***Summary of change:*** | * Remove the FiveGProSeUEPC5AggregateMaximumBitRate in ASN.1.
* Point the 5G ProSe UE PC5 Aggregate Maximum Bit Rate IE to NRUESidelinkAggregateMaximumBitRate.
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|  |  |
| ***Consequences if not approved:*** |  Misalignment may remain between tabular and ASN.1.  |
|  |  |
| ***Clauses affected:*** | 9.3.4, 9.3.5 |
|  |  |
|  | **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:*** |  |

////////////////////////////////////////////////////////////////////////////For Reference/////////////////////////////////////////////////////////////////////

#### 9.1.1.1 HANDOVER REQUEST

This message is sent by the source NG-RAN node to the target NG-RAN node to request the preparation of resources for a handover.

Direction: source NG-RAN node → target NG-RAN node.

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| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | reject |
| Source NG-RAN node UE XnAP ID reference | M |  | NG-RAN node UE XnAP ID9.2.3.16 | Allocated at the source NG-RAN node | YES | reject |
| Cause | M |  | 9.2.3.2 |  | YES | reject |
| Target Cell Global ID | M |  | 9.2.3.25 | Includes either an E-UTRA CGI or an NR CGI | YES | reject |
| GUAMI | M |  | 9.2.3.24 |  | YES | reject |
| **UE Context Information** |  | *1* |  |  | YES | reject |
| >NG-C UE associated Signalling reference | M |  | AMF UE NGAP ID9.2.3.26 | Allocated at the AMF on the source NG-C connection. | – |  |
| >Signalling TNL association address at source NG-C side | M |  | CP Transport Layer Information9.2.3.31 | This IE indicates the AMF’s IP address of the SCTP association used at the source NG-C interface instance.Note: If no UE TNLA binding exists at the source NG-RAN node, the source NG-RAN node indicates the TNL association address it would have selected if it would have had to create a UE TNLA binding. | – |  |
| >UE Security Capabilities | M |  | 9.2.3.49 |  | – |  |
| >AS Security Information | M |  | 9.2.3.50 |  | – |  |
| >Index to RAT/Frequency Selection Priority | O |  | 9.2.3.23 |  | – |  |
| >UE Aggregate Maximum Bit Rate | M |  | 9.2.3.17 |  | – |  |
| >PDU Session Resources To Be Setup List |  | *1* | 9.2.1.1 | Similar to NG-C signalling, containing UL tunnel information per PDU Session Resource;and in addition, the source side QoS flow ⇔ DRB mapping | – |  |
| >RRC Context | M |  | OCTET STRING | Either includes the *HandoverPreparationInformation* message as defined in subclause 10.2.2. of TS 36.331 [14], or the *HandoverPreparationInformation-NB* message as defined in subclause 10.6.2 of TS 36.331 [14], if the target NG-RAN node is an ng-eNB,or the *HandoverPreparationInformation* message as defined in subclause 11.2.2 of TS 38.331 [10], if the target NG-RAN node is a gNB. | – |  |
| >Location Reporting Information | O |  | 9.2.3.47 | Includes the necessary parameters for location reporting. | – |  |
| >Mobility Restriction List | O |  | 9.2.3.53 |  | – |  |
| >5GC Mobility Restriction List Container | O |  | 9.2.3.100 |  | YES | ignore |
| >NR UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.107 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| >LTE UE Sidelink Aggregate Maximum Bit Rate | O |  | 9.2.3.108 | This IE applies only if the UE is authorized for LTE V2X services. | YES | ignore |
| >ManagementBasedMDT PLMN List | O |  | MDT PLMN List9.2.3.133 |  | YES | ignore |
| >UE Radio Capability ID | O |  | 9.2.3.138 |  | YES | reject |
| >MBS Session Information List | O |  | 9.2.1.36 |  | YES | ignore |
| >5G ProSe UE PC5 Aggregate Maximum Bit Rate | O |  | NR UE Sidelink Aggregate Maximum Bit Rate9.2.3.107 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |
| >UE Slice Maximum Bit Rate List | O |  | 9.2.3.167 |  | YES | ignore |
| Trace Activation | O |  | 9.2.3.55 |  | YES | ignore |
| Masked IMEISV | O |  | 9.2.3.32 |  | YES | ignore |
| UE History Information | M |  | 9.2.3.64 |  | YES | ignore |
| **UE Context Reference at the S-NG-RAN node** | O |  |  |  | YES | ignore |
| >Global NG-RAN Node ID | M |  | 9.2.2.3 |  | – |  |
| >S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID9.2.3.16 |  | – |  |
| **Conditional Handover Information Request** | O |  |  |  | YES | reject |
| >CHO Trigger | M |  | ENUMERATED (CHO-initiation, CHO-replace, …) |  | – |  |
| >Target NG-RAN node UE XnAP ID | C-ifCHOmod |  | NG-RAN node UE XnAP ID9.2.3.16 | Allocated at the target NG-RAN node | – |  |
| >Estimated Arrival Probability | O |  | INTEGER (1..100) |  | – |  |
| NR V2X Services Authorized | O |  | 9.2.3.105 |  | YES | ignore |
| LTE V2X Services Authorized | O |  | 9.2.3.106 |  | YES | ignore |
| PC5 QoS Parameters | O |  | 9.2.3.109 | This IE applies only if the UE is authorized for NR V2X services. | YES | ignore |
| Mobility Information | O |  | BIT STRING (SIZE (32)) | Information related to the handover; the source NG-RAN node provides it in order to enable later analysis of the conditions that led to a wrong HO. | YES | ignore |
| UE History Information from the UE | O |  | 9.2.3.110 |  | YES | ignore |
| IAB Node Indication | O |  | ENUMERATED (true, ...) |  | YES | reject |
| No PDU Session Indication | O |  | ENUMERATED (true, ...) | Applicable to IAB-MT only. | YES | ignore |
| Time Synchronisation Assistance Information  | O |  | 9.2.3.153 |  | YES | ignore |
| QMC Configuration Information | O |  | 9.2.3.156 |  | YES | ignore |
| 5G ProSe Authorized | O |  | 9.2.3.159 |  | YES | ignore |
| 5G ProSe PC5 QoS Parameters | O |  | 9.2.3.160 | This IE applies only if the UE is authorized for 5G ProSe services. | YES | ignore |

|  |  |
| --- | --- |
| Condition | Explanation |
| ifCHOmod | This IE shall be present if the *CHO Trigger* IE is present and set to "CHO-replace". |

|  |  |
| --- | --- |
| Range bound | Explanation |
| maxnoofMDTPLMNs | PLMNs in the Management Based MDT PLMN list. Value is 16. |

////////////////////////////////////////////////////////////////////////////CHANGE STARTS/////////////////////////////////////////////////////////////////////

### 9.3.4 PDU Definitions

-- ASN1START

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

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-- PDU definitions for XnAP.

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

XnAP-PDU-Contents {

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

ngran-access (22) modules (3) xnap (2) version1 (1) xnap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

--

-- IE parameter types from other modules.

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

IMPORTS

 ActivationIDforCellActivation,

 AMF-Region-Information,

 AMF-UE-NGAP-ID,

 AS-SecurityInformation,

 AssistanceDataForRANPaging,

 BitRate,

 Cause,

 CellAndCapacityAssistanceInfo-EUTRA,

 CellAndCapacityAssistanceInfo-NR,

 CellAssistanceInfo-EUTRA,

 CellAssistanceInfo-NR,

 CHOinformation-Req,

 CHOinformation-Ack,

 CHOinformation-AddReq,

 CHOinformation-ModReq,

 CHO-MRDC-EarlyDataForwarding,

 CHO-MRDC-Indicator,

 CPTransportLayerInformation,

 TNLA-To-Add-List,

 TNLA-To-Update-List,

 TNLA-To-Remove-List,

 TNLA-Setup-List,

 TNLA-Failed-To-Setup-List,

 CriticalityDiagnostics,

 XnUAddressInfoperPDUSession-List,

 DAPSResponseInfo-List,

 DataTrafficResourceIndication,

 DeliveryStatus,

 DesiredActNotificationLevel,

 DRB-ID,

 DRB-List,

 DRB-Number,

 DRBsSubjectToDLDiscarding-List,

 DRBsSubjectToEarlyStatusTransfer-List,

 DRBsSubjectToStatusTransfer-List,

 DRBToQoSFlowMapping-List,

 E-UTRA-CGI,

 ExpectedUEActivityBehaviour,

 ExpectedUEBehaviour,

 ExtendedUEIdentityIndexValue,

 FiveGCMobilityRestrictionListContainer,

 GlobalCell-ID,

 GlobalNG-RANNode-ID,

 GlobalNG-RANCell-ID,

 GUAMI,

 InterfaceInstanceIndication,

 I-RNTI,

 Local-NG-RAN-Node-Identifier,

 LocationInformationSNReporting,

 LocationReportingInformation,

 LowerLayerPresenceStatusChange,

 LTEUESidelinkAggregateMaximumBitRate,

 LTEV2XServicesAuthorized,

 MR-DC-ResourceCoordinationInfo,

 ServedCells-E-UTRA,

 ServedCells-NR,

 ServedCellsToUpdate-E-UTRA,

 ServedCellsToUpdate-NR,

 MAC-I,

 MaskedIMEISV,

 MDT-Configuration,

 MDTPLMNList,

 MobilityRestrictionList,

 Neighbour-NG-RAN-Node-List,

 NG-RAN-Cell-Identity,

 NG-RANnodeUEXnAPID,

 NR-CGI,

 NE-DC-TDM-Pattern,

 NRUESidelinkAggregateMaximumBitRate,

 NRV2XServicesAuthorized,

 PagingDRX,

 EUTRAPagingeDRXInformation,

 PagingPriority,

 PartialListIndicator,

 PLMN-Identity,

 PDCPChangeIndication,

 PDUSessionAggregateMaximumBitRate,

 PDUSession-ID,

 PDUSession-List,

 PDUSession-List-withCause,

 PDUSession-List-withDataForwardingFromTarget,

 PDUSession-List-withDataForwardingRequest,

 PDUSessionResourcesAdmitted-List,

 PDUSessionResourcesNotAdmitted-List,

 PDUSessionResourcesToBeSetup-List,

 PDUSessionResourceChangeRequiredInfo-SNterminated,

 PDUSessionResourceChangeRequiredInfo-MNterminated,

 PDUSessionResourceChangeConfirmInfo-SNterminated,

 PDUSessionResourceChangeConfirmInfo-MNterminated,

 PDUSessionResourceSecondaryRATUsageList,

 PDUSessionResourceSetupInfo-SNterminated,

 PDUSessionResourceSetupInfo-MNterminated,

 PDUSessionResourceSetupResponseInfo-SNterminated,

 PDUSessionResourceSetupResponseInfo-MNterminated,

 PDUSessionResourceModificationInfo-SNterminated,

 PDUSessionResourceModificationInfo-MNterminated,

 PDUSessionResourceModificationResponseInfo-SNterminated,

 PDUSessionResourceModificationResponseInfo-MNterminated,

 PDUSessionResourceModConfirmInfo-SNterminated,

 PDUSessionResourceModConfirmInfo-MNterminated,

 PDUSessionResourceModRqdInfo-SNterminated,

 PDUSessionResourceModRqdInfo-MNterminated,

 PDUSessionType,

 PC5QoSParameters,

 QoSFlowIdentifier,

 QoSFlowNotificationControlIndicationInfo,

 QoSFlows-List,

 RANPagingArea,

 ResetRequestTypeInfo,

 ResetResponseTypeInfo,

 RFSP-Index,

 RRCConfigIndication,

 RRCResumeCause,

 SCGConfigurationQuery,

 SecurityIndication,

 S-NG-RANnode-SecurityKey,

 SpectrumSharingGroupID,

 SplitSRBsTypes,

 S-NG-RANnode-Addition-Trigger-Ind,

 S-NSSAI,

 TargetCellList,

 TAISupport-List,

 Target-CGI,

 TimeToWait,

 TraceActivation,

 UEAggregateMaximumBitRate,

 UEContextID,

 UEContextInfoRetrUECtxtResp,

 UEContextKeptIndicator,

 UEHistoryInformation,

 UEIdentityIndexValue,

 UERadioCapabilityForPaging,

 UERadioCapabilityID,

 UERANPagingIdentity,

 UESecurityCapabilities,

 UPTransportLayerInformation,

 UserPlaneTrafficActivityReport,

 XnBenefitValue,

 RANPagingFailure,

 TNLConfigurationInfo,

 MaximumCellListSize,

 MessageOversizeNotification,

 NG-RANTraceID,

 MobilityInformation,

 InitiatingCondition-FailureIndication,

 HandoverReportType,

 TargetCellinEUTRAN,

 C-RNTI,

 UERLFReportContainer,

 Measurement-ID,

 RegistrationRequest,

 ReportCharacteristics,

 CellToReport,

 ReportingPeriodicity,

 CellMeasurementResult,

 UEHistoryInformationFromTheUE,

 MobilityParametersInformation,

 MobilityParametersModificationRange,

 RACHReportInformation,

 IABNodeIndication,

 SNTriggered,

 SCGIndicator,

 UESpecificDRX,

 DirectForwardingPathAvailability,

 TransportLayerAddress,

 PrivacyIndicator,

 URIaddress,

 MBS-Session-ID,

 UEIdentityIndexList-MBSGroupPaging,

 MBS-SessionInformation-List,

 MBS-SessionInformationResponse-List,

 SuccessfulHOReportInformation,

 PSCellHistoryInformationRetrieve,

 SSBOffsets-List,

 NG-RANnode2SSBOffsetsModificationRange,

 Coverage-Modification-List,

 SCGFailureReportContainer,

 SNMobilityInformation,

 PSCellChangeHistory,

 CHOConfiguration,

 SCGUEHistoryInformation,

 F1CTrafficContainer,

 NoPDUSessionIndication,

 IAB-TNL-Address-Request,

 IAB-TNL-Address-Response,

 TrafficIndex,

 TrafficProfile,

 TrafficToBeReleaseInformation,

 F1-TerminatingTopologyBHInformation,

 Non-F1-TerminatingTopologyBHInformation,

 BHInfoList,

 IABTNLAddress,

 IABCellInformation,

 IABTNLAddressException,

 TimeSynchronizationAssistanceInformation,

 SCGActivationRequest,

 SCGActivationStatus,

 CPAInformationRequest,

 CPAInformationAck,

 CPCInformationRequired,

 CPCInformationConfirm,

 CPAInformationModReq,

 CPAInformationModReqAck,

 CPC-DataForwarding-Indicator,

 CPCInformationUpdate,

 CPAInformationModRequired,

 QMCConfigInfo,

 FiveGProSeAuthorized,

 FiveGProSePC5QoSParameters,

 ServedCellSpecificInfoReq-NR,

 NRPagingeDRXInformation,

 NRPagingeDRXInformationforRRCINACTIVE,

 SDTSupportRequest,

 SDT-Termination-Request,

 SDTPartialUEContextInfo,

 SDTDataForwardingDRBList,

 PEIPSassistanceInformation,

 UESliceMaximumBitRateList,

 PagingCause

FROM XnAP-IEs

 PrivateIE-Container{},

 ProtocolExtensionContainer{},

 ProtocolIE-Container{},

 ProtocolIE-ContainerList{},

 ProtocolIE-ContainerPair{},

 ProtocolIE-ContainerPairList{},

 ProtocolIE-Single-Container{},

 XNAP-PRIVATE-IES,

 XNAP-PROTOCOL-EXTENSION,

 XNAP-PROTOCOL-IES,

 XNAP-PROTOCOL-IES-PAIR

FROM XnAP-Containers

 id-ActivatedServedCells,

 id-ActivationIDforCellActivation,

 id-AdditionalDRBIDs,

 id-AMF-Region-Information,

 id-AMF-Region-Information-To-Add,

 id-AMF-Region-Information-To-Delete,

 id-AssistanceDataForRANPaging,

 id-AvailableDRBIDs,

 id-Cause,

 id-cellAssistanceInfo-EUTRA,

 id-cellAssistanceInfo-NR,

 id-CellAndCapacityAssistanceInfo-EUTRA,

 id-CellAndCapacityAssistanceInfo-NR,

 id-ConfigurationUpdateInitiatingNodeChoice,

 id-UEContextID,

 id-CriticalityDiagnostics,

 id-XnUAddressInfoperPDUSession-List,

 id-DesiredActNotificationLevel,

 id-DRBsSubjectToStatusTransfer-List,

 id-ExpectedUEBehaviour,

 id-ExtendedUEIdentityIndexValue,

 id-FiveGCMobilityRestrictionListContainer,

 id-GlobalNG-RAN-node-ID,

 id-GUAMI,

 id-indexToRatFrequSelectionPriority,

 id-List-of-served-cells-E-UTRA,

 id-List-of-served-cells-NR,

 id-LocationInformationSN,

 id-LocationInformationSNReporting,

 id-LocationReportingInformation,

 id-LTEUESidelinkAggregateMaximumBitRate,

 id-LTEV2XServicesAuthorized,

 id-MAC-I,

 id-MaskedIMEISV,

 id-MDT-Configuration,

 id-MDTPLMNList,

 id-MN-to-SN-Container,

 id-MobilityRestrictionList,

 id-M-NG-RANnodeUEXnAPID,

 id-new-NG-RAN-Cell-Identity,

 id-newNG-RANnodeUEXnAPID,

 id-NRUESidelinkAggregateMaximumBitRate,

 id-NRV2XServicesAuthorized,

 id-oldNG-RANnodeUEXnAPID,

 id-OldtoNewNG-RANnodeResumeContainer,

 id-PagingCause,

 id-PagingDRX,

 id-EUTRAPagingeDRXInformation,

 id-PagingPriority,

 id-PartialListIndicator-EUTRA,

 id-PartialListIndicator-NR,

 id-PCellID,

 id-PDUSessionResourceSecondaryRATUsageList,

 id-PDUSessionResourcesActivityNotifyList,

 id-PDUSessionResourcesAdmitted-List,

 id-PDUSessionResourcesNotAdmitted-List,

 id-PDUSessionResourcesNotifyList,

 id-PDUSessionToBeAddedAddReq,

 id-PDUSessionToBeReleased-RelReqAck,

 id-procedureStage,

 id-RANPagingArea,

 id-requestedSplitSRB,

 id-RequiredNumberOfDRBIDs,

 id-ResetRequestTypeInfo,

 id-ResetResponseTypeInfo,

 id-RespondingNodeTypeConfigUpdateAck,

 id-RRCResumeCause,

 id-selectedPLMN,

 id-ServedCellsToActivate,

 id-servedCellsToUpdate-E-UTRA,

 id-ServedCellsToUpdateInitiatingNodeChoice,

 id-servedCellsToUpdate-NR,

 id-sourceNG-RANnodeUEXnAPID,

 id-SpareDRBIDs,

 id-S-NG-RANnodeMaxIPDataRate-UL,

 id-S-NG-RANnodeMaxIPDataRate-DL,

 id-S-NG-RANnodeUEXnAPID,

 id-TAISupport-list,

 id-Target2SourceNG-RANnodeTranspContainer,

 id-targetCellGlobalID,

 id-targetNG-RANnodeUEXnAPID,

 id-TimeToWait,

 id-TNLA-To-Add-List,

 id-TNLA-To-Update-List,

 id-TNLA-To-Remove-List,

 id-TNLA-Setup-List,

 id-TNLA-Failed-To-Setup-List,

 id-TraceActivation,

 id-UEContextInfoHORequest,

 id-UEContextInfoRetrUECtxtResp,

 id-UEContextKeptIndicator,

 id-UEContextRefAtSN-HORequest,

 id-UEHistoryInformation,

 id-UEIdentityIndexValue,

 id-UERANPagingIdentity,

 id-UESecurityCapabilities,

 id-UserPlaneTrafficActivityReport,

 id-XnRemovalThreshold,

 id-PDUSessionAdmittedAddedAddReqAck,

 id-PDUSessionNotAdmittedAddReqAck,

 id-SN-to-MN-Container,

 id-RRCConfigIndication,

 id-SplitSRB-RRCTransfer,

 id-UEReportRRCTransfer,

 id-PDUSessionReleasedList-RelConf,

 id-BearersSubjectToCounterCheck,

 id-PDUSessionToBeReleasedList-RelRqd,

 id-ResponseInfo-ReconfCompl,

 id-initiatingNodeType-ResourceCoordRequest,

 id-respondingNodeType-ResourceCoordResponse,

 id-PDUSessionToBeReleased-RelReq,

 id-PDUSession-SNChangeRequired-List,

 id-PDUSession-SNChangeConfirm-List,

 id-PDCPChangeIndication,

 id-PC5QoSParameters,

 id-SCGConfigurationQuery,

 id-UEContextInfo-SNModRequest,

 id-requestedSplitSRBrelease,

 id-PDUSessionAdmitted-SNModResponse,

 id-PDUSessionNotAdmitted-SNModResponse,

 id-admittedSplitSRB,

 id-admittedSplitSRBrelease,

 id-PDUSessionAdmittedModSNModConfirm,

 id-PDUSessionReleasedSNModConfirm,

 id-s-ng-RANnode-SecurityKey,

 id-PDUSessionToBeModifiedSNModRequired,

 id-S-NG-RANnodeUE-AMBR,

 id-PDUSessionToBeReleasedSNModRequired,

 id-target-S-NG-RANnodeID,

 id-S-NSSAI,

 id-MR-DC-ResourceCoordinationInfo,

 id-RANPagingFailure,

 id-UERadioCapabilityForPaging,

 id-PDUSessionDataForwarding-SNModResponse,

 id-Secondary-MN-Xn-U-TNLInfoatM,

 id-NE-DC-TDM-Pattern,

 id-InterfaceInstanceIndication,

 id-S-NG-RANnode-Addition-Trigger-Ind,

 id-SNTriggered,

 id-DRBs-transferred-to-MN,

 id-TNLConfigurationInfo,

 id-MessageOversizeNotification,

 id-NG-RANTraceID,

 id-FastMCGRecoveryRRCTransfer-SN-to-MN,

 id-FastMCGRecoveryRRCTransfer-MN-to-SN,

 id-RequestedFastMCGRecoveryViaSRB3,

 id-AvailableFastMCGRecoveryViaSRB3,

 id-RequestedFastMCGRecoveryViaSRB3Release,

 id-ReleaseFastMCGRecoveryViaSRB3,

 id-CHOinformation-Req,

 id-CHOinformation-Ack,

 id-targetCellsToCancel,

 id-requestedTargetCellGlobalID,

 id-DAPSResponseInfo-List,

 id-CHO-MRDC-EarlyDataForwarding,

 id-CHO-MRDC-Indicator,

 id-MobilityInformation,

 id-InitiatingCondition-FailureIndication,

 id-UEHistoryInformationFromTheUE,

 id-HandoverReportType,

 id-HandoverCause,

 id-SourceCellCGI,

 id-TargetCellCGI,

 id-ReEstablishmentCellCGI,

 id-TargetCellinEUTRAN,

 id-SourceCellCRNTI,

 id-UERLFReportContainer,

 id-NGRAN-Node1-Measurement-ID,

 id-NGRAN-Node2-Measurement-ID,

 id-RegistrationRequest,

 id-ReportCharacteristics,

 id-CellToReport,

 id-ReportingPeriodicity,

 id-CellMeasurementResult,

 id-NG-RANnode1CellID,

 id-NG-RANnode2CellID,

 id-NG-RANnode1MobilityParameters,

 id-NG-RANnode2ProposedMobilityParameters,

 id-MobilityParametersModificationRange,

 id-RACHReportInformation,

 id-IABNodeIndication,

 id-UERadioCapabilityID,

 id-SCGIndicator,

 id-UESpecificDRX,

 id-PDUSessionExpectedUEActivityBehaviour,

 id-DirectForwardingPathAvailability,

 id-SourceNG-RAN-node-ID,

 id-TargetNodeID,

 id-ManagementBasedMDTPLMNList,

 id-PrivacyIndicator,

 id-TraceCollectionEntityIPAddress,

 id-TraceCollectionEntityURI,

 id-MBS-Session-ID,

 id-UEIdentityIndexList-MBSGroupPaging,

 id-MulticastRANPagingArea,

 id-MBS-SessionInformation-List,

 id-MBS-SessionInformationResponse-List,

 id-SuccessfulHOReportInformation,

 id-PSCellHistoryInformationRetrieve,

 id-SSBOffsets-List,

 id-NG-RANnode2SSBOffsetsModificationRange,

 id-Coverage-Modification-List,

 id-PSCellCGI,

 id-FailedPSCellCGI,

 id-SCGFailureReportContainer,

 id-SNMobilityInformation,

 id-SourcePSCellID,

 id-SuitablePSCellCGI,

 id-PSCellChangeHistory,

 id-CHOConfiguration,

 id-SCGUEHistoryInformation,

 id-F1CTrafficContainer,

 id-NoPDUSessionIndication,

 id-F1-Terminating-DonorUEXnAPID,

 id-nonF1-Terminating-DonorUEXnAPID,

 id-IAB-TNL-Address-Request,

 id-IAB-TNL-Address-Response,

 id-TrafficToBeAddedList,

 id-TrafficToBeModifiedList,

 id-TrafficToBeReleaseInformation,

 id-TrafficAddedList,

 id-TrafficModifiedList,

 id-TrafficNotAddedList,

 id-TrafficNotModifiedList,

 id-TrafficRequiredToBeModifiedList,

 id-TrafficRequiredModifiedList,

 id-TrafficReleasedList,

 id-IABTNLAddressToBeAdded,

 id-IABTNLAddressToBeReleasedList,

 id-BoundaryNodeCellsList,

 id-ParentNodeCellsList,

 id-IABTNLAddressException,

 id-CHOinformation-AddReq,

 id-CHOinformation-ModReq,

 id-TimeSynchronizationAssistanceInformation,

 id-SCGActivationRequest,

 id-SCGActivationStatus,

 id-CPAInformationRequest,

 id-CPAInformationAck,

 id-CPCInformationRequired,

 id-CPCInformationConfirm,

 id-CPAInformationModReq,

 id-CPAInformationModReqAck,

 id-CPC-DataForwarding-Indicator,

 id-CPCInformationUpdate,

 id-CPAInformationModRequired,

 id-QMCConfigInfo,

 id-Local-NG-RAN-Node-Identifier,

 id-Neighbour-NG-RAN-Node-List,

 id-Local-NG-RAN-Node-Identifier-Removal,

 id-FiveGProSeAuthorized,

 id-FiveGProSePC5QoSParameters,

 id-FiveGProSeUEPC5AggregateMaximumBitRate,

 id-ServedCellSpecificInfoReq-NR,

 id-NRPagingeDRXInformation,

 id-NRPagingeDRXInformationforRRCINACTIVE,

 id-SDTSupportRequest,

 id-SDT-SRB-between-NewNode-OldNode,

 id-SDT-Termination-Request,

 id-SDTPartialUEContextInfo,

 id-SDTDataForwardingDRBList,

 id-PEIPSassistanceInformation,

 id-UESliceMaximumBitRateList,

 id-S-NG-RANnodeUE-Slice-MBR,

 maxnoofCellsinNG-RANnode,

 maxnoofDRBs,

 maxnoofPDUSessions,

 maxnoofQoSFlows,

 maxnoofServedCellsIAB,

 maxnoofTrafficIndexEntries,

 maxnoofTLAsIAB,

 maxnoofBAPControlPDURLCCHs,

 maxnoofServingCells

FROM XnAP-Constants;

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

--

-- HANDOVER REQUEST

--

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

HandoverRequest ::= SEQUENCE {

 protocolIEs ProtocolIE-Container {{HandoverRequest-IEs}},

 ...

}

HandoverRequest-IEs XNAP-PROTOCOL-IES ::= {

 { ID id-sourceNG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

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

 { ID id-targetCellGlobalID CRITICALITY reject TYPE Target-CGI PRESENCE mandatory}|

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

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

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

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

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

 { ID id-UEContextRefAtSN-HORequest CRITICALITY ignore TYPE UEContextRefAtSN-HORequest PRESENCE optional }|

 { ID id-CHOinformation-Req CRITICALITY reject TYPE CHOinformation-Req PRESENCE optional }|

 { ID id-NRV2XServicesAuthorized CRITICALITY ignore TYPE NRV2XServicesAuthorized PRESENCE optional }|

 { ID id-LTEV2XServicesAuthorized CRITICALITY ignore TYPE LTEV2XServicesAuthorized PRESENCE optional }|

 { ID id-PC5QoSParameters CRITICALITY ignore TYPE PC5QoSParameters PRESENCE optional }|

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

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

 { ID id-IABNodeIndication CRITICALITY reject TYPE IABNodeIndication PRESENCE optional }|

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

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

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

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

 { ID id-FiveGProSePC5QoSParameters CRITICALITY ignore TYPE FiveGProSePC5QoSParameters PRESENCE optional },

 ...

}

UEContextInfoHORequest ::= SEQUENCE {

 ng-c-UE-reference AMF-UE-NGAP-ID,

 cp-TNL-info-source CPTransportLayerInformation,

 ueSecurityCapabilities UESecurityCapabilities,

 securityInformation AS-SecurityInformation,

 indexToRatFrequencySelectionPriority RFSP-Index OPTIONAL,

 ue-AMBR UEAggregateMaximumBitRate,

 pduSessionResourcesToBeSetup-List PDUSessionResourcesToBeSetup-List,

 rrc-Context OCTET STRING,

 locationReportingInformation LocationReportingInformation OPTIONAL,

 mrl MobilityRestrictionList OPTIONAL,

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

 ...

}

UEContextInfoHORequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

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

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

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

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

 { ID id-UERadioCapabilityID CRITICALITY reject EXTENSION UERadioCapabilityID PRESENCE optional }|

 { ID id-MBS-SessionInformation-List CRITICALITY ignore EXTENSION MBS-SessionInformation-List PRESENCE optional }|

 { ID id-FiveGProSeUEPC5AggregateMaximumBitRate CRITICALITY ignore EXTENSION NRUESidelinkAggregateMaximumBitRate PRESENCE optional }|

 { ID id-UESliceMaximumBitRateList CRITICALITY ignore EXTENSION UESliceMaximumBitRateList PRESENCE optional },

 ...

}

UEContextRefAtSN-HORequest ::= SEQUENCE {

 globalNG-RANNode-ID GlobalNG-RANNode-ID,

 sN-NG-RANnodeUEXnAPID NG-RANnodeUEXnAPID,

 iE-Extensions ProtocolExtensionContainer { {UEContextRefAtSN-HORequest-ExtIEs} } OPTIONAL,

 ...

}

UEContextRefAtSN-HORequest-ExtIEs XNAP-PROTOCOL-EXTENSION ::={

 ...

}

////////////////////////////////////////////////////////////////////////////NEXT CHANGES/////////////////////////////////////////////////////////////////////

### 9.3.5 Information Element definitions

-- ASN1START

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

--

-- Information Element Definitions

--

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

XnAP-IEs {

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 id-CNTypeRestrictionsForEquivalent,

 id-CNTypeRestrictionsForServing,

 id-Additional-UL-NG-U-TNLatUPF-List,

 id-ConfiguredTACIndication,

 id-AlternativeQoSParaSetList,

 id-CurrentQoSParaSetIndex,

 id-DefaultDRB-Allowed,

 id-DLCarrierList,

 id-EndpointIPAddressAndPort,

 id-ExtendedReportIntervalMDT,

 id-ExtendedTAISliceSupportList,

 id-FiveGCMobilityRestrictionListContainer,

 id-SecondarydataForwardingInfoFromTarget-List,

 id-LastE-UTRANPLMNIdentity,

 id-IntendedTDD-DL-ULConfiguration-NR,

 id-MaxIPrate-DL,

 id-SecurityResult,

 id-OldQoSFlowMap-ULendmarkerexpected,

 id-PDUSessionCommonNetworkInstance,

 id-PDUSession-PairID,

 id-BPLMN-ID-Info-EUTRA,

 id-BPLMN-ID-Info-NR,

 id-DRBsNotAdmittedSetupModifyList,

 id-Secondary-MN-Xn-U-TNLInfoatM,

 id-ULForwardingProposal,

 id-DRB-IDs-takenintouse,

 id-SplitSessionIndicator,

 id-NonGBRResources-Offered,

 id-MDT-Configuration,

 id-TraceCollectionEntityURI,

 id-NPN-Broadcast-Information,

 id-NPNPagingAssistanceInformation,

 id-NPNMobilityInformation,

 id-NPN-Support,

 id-LTEUESidelinkAggregateMaximumBitRate,

 id-NRUESidelinkAggregateMaximumBitRate,

 id-ExtendedRATRestrictionInformation,

 id-QoSMonitoringRequest,

 id-QoSMonitoringDisabled,

 id-QosMonitoringReportingFrequency,

 id-DAPSRequestInfo,

 id-OffsetOfNbiotChannelNumberToDL-EARFCN,

 id-OffsetOfNbiotChannelNumberToUL-EARFCN,

 id-NBIoT-UL-DL-AlignmentOffset,

 id-TDDULDLConfigurationCommonNR,

 id-CarrierList,

 id-ULCarrierList,

 id-FrequencyShift7p5khz,

 id-SSB-PositionsInBurst,

 id-NRCellPRACHConfig,

 id-Redundant-UL-NG-U-TNLatUPF,

 id-Redundant-DL-NG-U-TNLatNG-RAN,

 id-CNPacketDelayBudgetDownlink,

 id-CNPacketDelayBudgetUplink,

 id-ExtendedPacketDelayBudget,

 id-Additional-Redundant-UL-NG-U-TNLatUPF-List,

 id-RedundantCommonNetworkInstance,

 id-TSCTrafficCharacteristics,

 id-RedundantQoSFlowIndicator,

 id-Additional-PDCP-Duplication-TNL-List,

 id-RedundantPDUSessionInformation,

 id-UsedRSNInformation,

 id-RLCDuplicationInformation,

 id-CSI-RSTransmissionIndication,

 id-UERadioCapabilityID,

 id-secondary-SN-UL-PDCP-UP-TNLInfo,

 id-pdcpDuplicationConfiguration,

 id-duplicationActivation,

 id-NPRACHConfiguration,

 id-QoSFlowsMappedtoDRB-SetupResponse-MNterminated,

 id-DL-scheduling-PDCCH-CCE-usage,

 id-UL-scheduling-PDCCH-CCE-usage,

 id-SFN-Offset,

 id-QoS-Mapping-Information,

 id-AdditionLocationInformation,

 id-dataForwardingInfoFromTargetE-UTRANnode,

 id-Cause,

 id-SecurityIndication,

 id-RRCConnReestab-Indicator,

 id-SourceDLForwardingIPAddress,

 id-SourceNodeDLForwardingIPAddress,

 id-M4ReportAmount,

 id-M5ReportAmount,

 id-M6ReportAmount,

 id-M7ReportAmount,

 id-BeamMeasurementIndicationM1,

 id-Supported-MBS-FSA-ID-List,

 id-MBS-SessionAssociatedInformation,

 id-MBS-SessionInformation-List,

 id-SliceRadioResourceStatus-List,

 id-CompositeAvailableCapacitySupplementaryUplink,

 id-SCGUEHistoryInformation,

 id-SSBOffsets-List,

 id-NG-RANnode2SSBOffsetsModificationRange,

 id-NR-U-Channel-List,

 id-NR-U-ChannelInfo-List,

 id-MIMOPRBusageInformation,

 id-UEAssistantIdentifier,

 id-IAB-MT-Cell-List,

 id-NoPDUSessionIndication,

 id-permutation,

 id-UL-GNB-DU-Cell-Resource-Configuration,

 id-DL-GNB-DU-Cell-Resource-Configuration,

 id-tdd-GNB-DU-Cell-Resource-Configuration,

 id-Additional-Measurement-Timing-Configuration-List,

 id-SurvivalTime,

 id-Local-NG-RAN-Node-Identifier,

 id-Neighbour-NG-RAN-Node-List,

 id-FiveGProSeUEPC5AggregateMaximumBitRate,

 id-Redcap-Bcast-Information,

 id-UESliceMaximumBitRateList,

 id-PositioningInformation,

 id-ServedCellSpecificInfoReq-NR,

 maxEARFCN,

 maxnoofAllowedAreas,

 maxnoofAMFRegions,

 maxnoofAoIs,

////////////////////////////////////////////////////////////////////////////NEXT CHANGES/////////////////////////////////////////////////////////////////////

-- F

F1CTrafficContainer ::= OCTET STRING

F1-TerminatingTopologyBHInformation ::= SEQUENCE {

 f1TerminatingBHInformation-List F1TerminatingBHInformation-List,

 iE-Extensions ProtocolExtensionContainer { {F1-TerminatingTopologyBHInformation-ExtIEs} } OPTIONAL,

 ...

}

F1-TerminatingTopologyBHInformation-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

F1TerminatingBHInformation-List ::= SEQUENCE (SIZE(1..maxnoofBHInfo)) OF F1TerminatingBHInformation-Item

F1TerminatingBHInformation-Item ::= SEQUENCE {

 bHInfoIndex BHInfoIndex,

 dLTNLAddress IABTNLAddress,

 dlF1TermBHInfo DLF1Term-BHInfo OPTIONAL,

 ulF1TermBHInfo ULF1Term-BHInfo OPTIONAL,

 iE-Extension ProtocolExtensionContainer { { F1TerminatingBHInformation-Item-ExtIEs} } OPTIONAL,

 ...

}

F1TerminatingBHInformation-Item-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

FiveGCMobilityRestrictionListContainer ::= OCTET STRING

-- This octets of the OCTET STRING contain the Mobility Restriction List IE as specified in TS 38.413 [5]. --

FiveGProSeAuthorized ::= SEQUENCE {

 fiveGproSeDirectDiscovery FiveGProSeDirectDiscovery OPTIONAL,

 fiveGproSeDirectCommunication FiveGProSeDirectCommunication OPTIONAL,

 fiveGnrProSeLayer2UEtoNetworkRelay FiveGProSeLayer2UEtoNetworkRelay OPTIONAL,

 fiveGnrProSeLayer3UEtoNetworkRelay FiveGProSeLayer3UEtoNetworkRelay OPTIONAL,

 fiveGnrProSeLayer2RemoteUE FiveGProSeLayer2RemoteUE OPTIONAL,

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

 ...

}

FiveGProSeAuthorized-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

FiveGProSeDirectDiscovery ::= ENUMERATED {

 authorized,

 not-authorized,

 ...

}

FiveGProSeDirectCommunication ::= ENUMERATED {

 authorized,

 not-authorized,

 ...

}

FiveGProSeLayer2UEtoNetworkRelay ::= ENUMERATED {

 authorized,

 not-authorized,

 ...

}

FiveGProSeLayer3UEtoNetworkRelay ::= ENUMERATED {

 authorized,

 not-authorized,

 ...

}

FiveGProSeLayer2RemoteUE ::= ENUMERATED {

 authorized,

 not-authorized,

 ...

}

FiveGProSePC5QoSParameters ::= SEQUENCE {

 fiveGProSepc5QoSFlowList FiveGProSePC5QoSFlowList,

 fiveGproSepc5LinkAggregateBitRates BitRate OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { FiveGProSePC5QoSParameters-ExtIEs} } OPTIONAL,

 ...

}

FiveGProSePC5QoSParameters-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

FiveGProSePC5QoSFlowList::= SEQUENCE (SIZE(1..maxnoofPC5QoSFlows)) OF FiveGProSePC5QoSFlowItem

FiveGProSePC5QoSFlowItem::= SEQUENCE {

 fiveGproSepQI FiveQI,

 fiveGproSepc5FlowBitRates FiveGProSePC5FlowBitRates OPTIONAL,

 fiveGproSerange Range OPTIONAL,

 iE-Extensions ProtocolExtensionContainer { { FiveGProSePC5QoSFlowItem-ExtIEs} } OPTIONAL,

 ...

}

FiveGProSePC5QoSFlowItem-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

FiveGProSePC5FlowBitRates ::= SEQUENCE {

 fiveGproSeguaranteedFlowBitRate BitRate,

 fiveGproSemaximumFlowBitRate BitRate,

 iE-Extensions ProtocolExtensionContainer { { FiveGProSePC5FlowBitRates-ExtIEs} } OPTIONAL,

 ...

}

FiveGProSePC5FlowBitRates-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

////////////////////////////////////////////////////////////////////////////NEXT CHANGES/////////////////////////////////////////////////////////////////////

-- U

UEAggregateMaximumBitRate ::= SEQUENCE {

 dl-UE-AMBR BitRate,

 ul-UE-AMBR BitRate,

 iE-Extension ProtocolExtensionContainer { {UEAggregateMaximumBitRate-ExtIEs} } OPTIONAL,

 ...

}

UEAggregateMaximumBitRate-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

UEAppLayerMeasConfigInfo ::= SEQUENCE {

 qOEReference QOEReference,

 qOEMeasConfigAppLayerID QOEMeasConfAppLayerID,

 serviceType ServiceType,

 qOEMeasStatus QOEMeasStatus OPTIONAL,

 containerAppLayerMeasConfig ContainerAppLayerMeasConfig OPTIONAL,

 mDTAlignmentInfo MDTAlignmentInfo OPTIONAL,

 measCollectionEntityIPAddress MeasCollectionEntityIPAddress OPTIONAL,

 areaScopeOfQMC AreaScopeOfQMC OPTIONAL,

 s-NSSAIListQoE S-NSSAIListQoE OPTIONAL,

 availableRVQoEMetrics AvailableRVQoEMetrics OPTIONAL,

 iE-Extension ProtocolExtensionContainer { {UEAppLayerMeasConfigInfo-ExtIEs} } OPTIONAL,

 ...

}

UEAppLayerMeasConfigInfo-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

UEContextKeptIndicator ::= ENUMERATED {true, ...}

UEContextID ::= CHOICE {

 rRCResume UEContextIDforRRCResume,

 rRRCReestablishment UEContextIDforRRCReestablishment,

 choice-extension ProtocolIE-Single-Container { {UEContextID-ExtIEs} }

}

UEContextID-ExtIEs XNAP-PROTOCOL-IES ::= {

 ...

}

UEContextIDforRRCResume ::= SEQUENCE {

 i-rnti I-RNTI,

 allocated-c-rnti C-RNTI,

 accessPCI NG-RAN-CellPCI,

 iE-Extension ProtocolExtensionContainer { {UEContextIDforRRCResume-ExtIEs} } OPTIONAL,

 ...

}

UEContextIDforRRCResume-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

UEContextIDforRRCReestablishment ::= SEQUENCE {

 c-rnti C-RNTI,

 failureCellPCI NG-RAN-CellPCI,

 iE-Extension ProtocolExtensionContainer { {UEContextIDforRRCReestablishment-ExtIEs} } OPTIONAL,

 ...

}

UEContextIDforRRCReestablishment-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

 ...

}

UEContextInfoRetrUECtxtResp ::= SEQUENCE {

 ng-c-UE-signalling-ref AMF-UE-NGAP-ID,

 signalling-TNL-at-source CPTransportLayerInformation,

 ueSecurityCapabilities UESecurityCapabilities,

 securityInformation AS-SecurityInformation,

 ue-AMBR UEAggregateMaximumBitRate,

 pduSessionResourcesToBeSetup-List PDUSessionResourcesToBeSetup-List,

 rrc-Context OCTET STRING,

 mobilityRestrictionList MobilityRestrictionList OPTIONAL,

 indexToRatFrequencySelectionPriority RFSP-Index OPTIONAL,

 iE-Extension ProtocolExtensionContainer { {UEContextInfoRetrUECtxtResp-ExtIEs} } OPTIONAL,

 ...

}

UEContextInfoRetrUECtxtResp-ExtIEs XNAP-PROTOCOL-EXTENSION ::= {

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

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

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

 { ID id-UERadioCapabilityID CRITICALITY reject EXTENSION UERadioCapabilityID PRESENCE optional }|

 { ID id-MBS-SessionInformation-List CRITICALITY ignore EXTENSION MBS-SessionInformation-List PRESENCE optional }|

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

 { ID id-FiveGProSeUEPC5AggregateMaximumBitRate CRITICALITY ignore EXTENSION NRUESidelinkAggregateMaximumBitRate PRESENCE optional }|

 { ID id-UESliceMaximumBitRateList CRITICALITY reject EXTENSION UESliceMaximumBitRateList PRESENCE optional }|

 { ID id-PositioningInformation CRITICALITY ignore EXTENSION PositioningInformation PRESENCE optional },

 ...

}

UEHistoryInformation ::= SEQUENCE (SIZE(1..maxnoofCellsinUEHistoryInfo)) OF LastVisitedCell-Item

UEHistoryInformationFromTheUE ::= CHOICE {

 nR NRMobilityHistoryReport,

 choice-extension ProtocolIE-Single-Container { {UEHistoryInformationFromTheUE-ExtIEs} }

}