3GPP TSG-RAN WG3 Meeting #127 R3-250833

Athens, Greece, 17th -21st Feburary,2025

Agenda Item: 12.2

Source: Huawei

Title: (TP for WAB BL CR for TS 38.413) Additional ULI for UEs served by WAB-Nodes

Document for: Agreement

# 1 Introduction

This paper is to provide TP for TS 38.413 to reflect the following agreements:

# Annex A: TP for TS 38.413

*Start of Change*

## 9.3.1.16 User Location Information

This IE is used to provide location information of the UE.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| CHOICE *User Location Information* | M |  |  |  | - |  |
| *>E-UTRA user location information* |  |  |  |  |  |  |
| >>E-UTRA CGI | M |  | 9.3.1.9 |  | - |  |
| >>TAI | M |  | 9.3.3.11 |  | - |  |
| >>Age of Location | O |  | Time Stamp9.3.1.75 | Indicates the UTC time when the location information was generated. | - |  |
| >>PSCell Information | O |  | NG-RAN CGI9.3.1.73 |  | YES | ignore |
| *>NR user location information* |  |  |  |  |  |  |
| >>NR CGI | M |  | 9.3.1.7 |  | - |  |
| >>TAI | M |  | 9.3.3.11 | This IE is ignored if the NR NTN TAI Information IE is present. | - |  |
| >>Age of Location | O |  | Time Stamp9.3.1.75 | Indicates the UTC time when the location information was generated. | - |  |
| >>PSCell Information | O |  | NG-RAN CGI9.3.1.73 |  | YES | ignore |
| >>NID | O |  | 9.3.3.42 |  | YES | reject |
| >>NR NTN TAI Information | O |  | 9.3.3.53 |  | YES | ignore |
| >>Mobile IAB-MT User Location Information | O |  | 9.3.1.260 | Indicates the user location information of a mobile IAB-MT, which is co-located with the mobile IAB-DU which serves the UE. | YES | ignore |
| >>Additional ULI of WAB | O |  | 9.3.1.X | Indicates the user location information of a WAB-node. | YES | ignore |
| *>N3IWF user location information* |  |  |  |  |  |  |
| >>IP Address | M |  | Transport Layer Address 9.3.2.4 | UE's local IP address used to reach the N3IWF | - |  |
| >>Port Number | O |  | OCTET STRING(SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>TNGF user location information* |  |  |  |  | YES | ignore |
| >>TNAP ID | M |  |  OCTET STRING | TNAP Identifier used to identify the TNAP. Details in TS 29.571 [35]. | - |  |
| >>IP Address | M |  | Transport Layer Address 9.3.2.4 | UE's local IP address used to reach the TNGF. | - |  |
| >>Port Number | O |  | OCTET STRING(SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>TWIF user location information* |  |  |  |  | YES | ignore |
| >>TWAP ID | M |  | OCTET STRING | TWAP Identifier used to identify the TWAP. Details in TS 29.571 [35]. | - |  |
| >>IP Address | M |  | Transport Layer Address 9.3.2.4 | Non-5G-Capable over WLAN device's local IP address used to reach the TWIF. | - |  |
| >>Port Number | O |  | OCTET STRING(SIZE(2)) | UDP or TCP source port number if NAT is detected. | - |  |
| >>TAI | O |  | 9.3.3.11 |  | YES | ignore |
| *>W-AGF user location information* |  |  |  | Indicates the location information via wireline access as specified in TS 23.316 [34]. | YES | ignore |
| >>W-AGF user location information | M |  | 9.3.1.164 |  | - |  |

*Next Change*

#### 9.3.1.X Additional ULI of WAB

This IE contains the NR CGI and the TAI to reflect the location information of WAB-gNB which serves the UE.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
| NR CGI | M |  | 9.3.1.7 | In case UE and WAB-MT are served by the same PLMN and WAB-MT connects via TN backhaul, this IE indicates the NR CGI of the cell, which is the serving cell of the WAB-MT.Otherwise, the NR CGI is derived from the WAB-node’s geolocation. |
| TAI | M |  | 9.3.3.11 | In case UE and WAB-MT are served by the same PLMN and WAB-MT connects via TN backhaul, this IE indicates the TAI supported by the cell, which is the serving cell of the WAB-MT.Otherwise, this IE indicates the TAI derived from the WAB-node’s geolocation. |

*Next Change*

### 9.4.5 Information Element Definitions

-- ASN1START

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-- Information Element Definitions

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

NGAP-IEs {

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

ngran-Access (22) modules (3) ngap (1) version1 (1) ngap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS

 id-AdditionalDLForwardingUPTNLInformation,

 id-AdditionalULForwardingUPTNLInformation,

 id-AdditionalDLQosFlowPerTNLInformation,

 id-AdditionalDLUPTNLInformationForHOList,

 id-AdditionalNGU-UP-TNLInformation,

 id-AdditionalRedundantDL-NGU-UP-TNLInformation,

 id-AdditionalRedundantDLQosFlowPerTNLInformation,

 id-AdditionalRedundantNGU-UP-TNLInformation,

 id-AdditionalRedundantUL-NGU-UP-TNLInformation,

 id-AdditionalUL-NGU-UP-TNLInformation,

 id-AlternativeQoSParaSetList,

 id-AssistanceInformationQoE-Meas,

 id-AdditionalCancelledlocationReportingReferenceIDList,

 id-BurstArrivalTimeDownlink,

 id-Cause,

 id-CNPacketDelayBudgetDL,

 id-CNPacketDelayBudgetUL,

 id-CNTypeRestrictionsForEquivalent,

 id-CNTypeRestrictionsForServing,

 id-CommonNetworkInstance,

 id-ConfiguredTACIndication,

 id-CN-MT-CommunicationHandling,

 id-CurrentQoSParaSetIndex,

 id-DAPSRequestInfo,

 id-DAPSResponseInfoList,

 id-DataForwardingNotPossible,

 id-DataForwardingResponseERABList,

 id-DirectForwardingPathAvailability,

 id-DL-NGU-UP-TNLInformation,

 id-DownlinkTLContainer,

 id-EndpointIPAddressAndPort,

 id-EnergySavingIndication,

 id-ExtendedMobilityInformation,

 id-ExtendedPacketDelayBudget,

 id-ExtendedRATRestrictionInformation,

 id-ExtendedReportIntervalMDT,

 id-ExtendedSliceSupportList,

 id-ExtendedTAISliceSupportList,

 id-ExtendedUEIdentityIndexValue,

 id-EUTRA-PagingeDRXInformation,

 id-EquivalentSNPNsList,

 id-GlobalCable-ID,

 id-GlobalRANNodeID,

 id-GlobalTNGF-ID,

 id-GlobalTWIF-ID,

 id-GlobalW-AGF-ID,

 id-GUAMIType,

 id-HashedUEIdentityIndexValue,

 id-IncludeBeamMeasurementsIndication,

 id-IntersystemSONInformationRequest,

 id-IntersystemSONInformationReply,

 id-IntersystemResourceStatusUpdate,

 id-IntersystemMobilityFailureforVoiceFallback,

 id-LastEUTRAN-PLMNIdentity,

 id-LastVisitedPSCellList,

 id-LocationReportingAdditionalInfo,

 id-M4ReportAmount,

 id-M5ReportAmount,

 id-M6ReportAmount,

 id-ExcessPacketDelayThresholdConfiguration,

 id-M7ReportAmount,

 id-MaximumIntegrityProtectedDataRate-DL,

 id-MBS-AreaSessionID,

 id-MBS-QoSFlowsToBeSetupList,

 id-MBS-QoSFlowsToBeSetupModList,

 id-MBS-QoSFlowToReleaseList,

 id-MBS-ServiceArea,

 id-MBS-SessionFSAIDList,

 id-MBS-SessionID,

 id-MBS-ActiveSessionInformation-SourcetoTargetList,

 id-MBS-ActiveSessionInformation-TargettoSourceList,

 id-MBS-AssistanceInformation,

 id-MBS-SessionTNLInfo5GC,

 id-MBS-SupportIndicator,

 id-MBSSessionFailedtoSetupList,

 id-MBSSessionFailedtoSetuporModifyList,

 id-MBSSessionSetupResponseList,

 id-MBSSessionSetuporModifyResponseList,

 id-MBSSessionToReleaseList,

 id-MBSSessionSetupRequestList,

 id-MBSSessionSetuporModifyRequestList,

 id-MDTConfiguration,

 id-MicoAllPLMN,

 id-NetworkInstance,

 id-NGAPIESupportInformationRequestList,

 id-NGAPIESupportInformationResponseList,

 id-NID,

 id-NR-CGI,

 id-NRNTNTAIInformation,

 id-NPN-MobilityInformation,

 id-NPN-PagingAssistanceInformation,

 id-NPN-Support,

 id-NR-PagingeDRXInformation,

 id-OldAssociatedQosFlowList-ULendmarkerexpected,

 id-OnboardingSupport,

 id-PagingAssisDataforCEcapabUE,

 id-PagingCauseIndicationForVoiceService,

 id-PDUSessionAggregateMaximumBitRate,

 id-PduSessionExpectedUEActivityBehaviour,

 id-PDUSessionPairID,

 id-PDUSessionResourceFailedToSetupListCxtFail,

 id-PDUSessionResourceReleaseResponseTransfer,

 id-PDUSessionType,

 id-PEIPSassistanceInformation,

 id-PSCellInformation,

 id-PNI-NPNBasedMDT,

 id-PNI-NPN-AreaScopeofMDT,

 id-QMCConfigInfo,

 id-QosFlowAdditionalInfoList,

 id-QosFlowAddOrModifyRequestList,

 id-QosFlowFailedToSetupList,

 id-QosFlowFeedbackList,

 id-QosFlowParametersList,

 id-QosFlowSetupRequestList,

 id-QosFlowToReleaseList,

 id-QosMonitoringRequest,

 id-QosMonitoringReportingFrequency,

 id-SNPN-CellBasedMDT,

 id-SNPN-TAIBasedMDT,

 id-SNPN-BasedMDT,

 id-SuccessfulHandoverReportList,

 id-SupportedUETypeList,

 id-UEContextReferenceAtSource,

 id-RAT-Information,

 id-RedundantCommonNetworkInstance,

 id-RedundantDL-NGU-TNLInformationReused,

 id-RedundantDL-NGU-UP-TNLInformation,

 id-RedundantDLQosFlowPerTNLInformation,

 id-RedundantPDUSessionInformation,

 id-RedundantQosFlowIndicator,

 id-RedundantUL-NGU-UP-TNLInformation,

 id-SCTP-TLAs,

 id-SecondaryRATUsageInformation,

 id-SecurityIndication,

 id-SecurityResult,

 id-SgNB-UE-X2AP-ID,

 id-S-NSSAI,

 id-SONInformationReport,

 id-SourceNodeID,

 id-SourceNodeTNLAddrInfo,

 id-SourceSN-to-TargetSN-QMCInfo,

 id-SourceTNLAddrInfo,

 id-SurvivalTime,

 id-Selected-Target-SNPN-Identity,

 id-TNLAssociationTransportLayerAddressNGRAN,

 id-TAINSAGSupportList,

 id-TargetHomeENB-ID,

 id-TargetRNC-ID,

 id-TimeBasedHandoverInformation,

 id-TraceCollectionEntityURI,

 id-TSCTrafficCharacteristics,

 id-UEHistoryInformationFromTheUE,

 id-UERadioCapabilityForPaging,

 id-UERadioCapabilityForPagingOfNB-IoT,

 id-UL-NGU-UP-TNLInformation,

 id-UL-NGU-UP-TNLModifyList,

 id-ULForwarding,

 id-ULForwardingUP-TNLInformation,

 id-UplinkTLContainer,

 id-UsedRSNInformation,

 id-UserLocationInformationTNGF,

 id-UserLocationInformationTWIF,

 id-UserLocationInformationW-AGF,

 id-UserPlaneErrorIndicator,

 id-EarlyMeasurement,

 id-BeamMeasurementsReportConfiguration,

 id-DLDiscarding,

 id-TAI,

 id-HFCNode-ID-new,

 id-GlobalCable-ID-new,

 id-FiveGProSeLayer2Multipath,

 id-CandidateRelayUEInformationList,

 id-FiveGProSeLayer2UEtoUERelay,

 id-FiveGProSeLayer2UEtoUERemote,

 id-SuccessfulPSCellChangeReportList,

 id-TargetCellCRNTI,

 id-TimeSinceFailure,

 id-ClockQualityReportingControlInfo,

 id-RANfeedbacktype,

 id-QoSFlowTSCList,

 id-TSCTrafficCharacteristicsFeedback,

 id-ANPacketDelayBudgetUL,

 id-MBSCommServiceType,

 id-MobileIAB-MTUserLocationInformation,

 id-PDUsetQoSParameters,

 id-PDUSetbasedHandlingIndicator,

 id-N6JitterInformation,

 id-ECNMarkingorCongestionInformationReportingRequest,

 id-ECNMarkingorCongestionInformationReportingStatus,

 id-MN-only-MDT-collection,

 id-XrDeviceWith2Rx,

 id-MaximumDataBurstVolume,

 id-MBS-NGUFailureIndication,

 id-UserPlaneFailureIndication,

 id-UserPlaneFailureIndicationReport,

 id-QoERVQoEReportingPaths,

 id-AdditionalULIofWAB

 maxnoofAllowedAreas,

 maxnoofAllowedCAGsperPLMN,

 maxnoofAllowedS-NSSAIs,

 maxnoofAoIMinusOne,

 maxnoofBluetoothName,

 maxnoofBPLMNs,

 maxnoofCAGforMDT,

 maxnoofCAGSperCell,

 maxnoofCandidateCells,

 maxnoofCellIDforMDT,

 maxnoofCellIDforQMC,

 maxnoofCellIDforWarning,

 maxnoofCellinAoI,

 maxnoofCellinEAI,

 maxnoofCellsforMBS,

 maxnoofCellsingNB,

 maxnoofCellsinngeNB,

 maxnoofCellsinNGRANNode,

 maxnoofCellinTAI,

 maxnoofCellsinUEHistoryInfo,

 maxnoofCellsUEMovingTrajectory,

 maxnoofDRBs,

 maxnoofEmergencyAreaID,

 maxnoofEAIforRestart,

 maxnoofEPLMNs,

 maxnoofEPLMNsPlusOne,

 maxnoofE-RABs,

 maxnoofErrors,

 maxnoofExtSliceItems,

 maxnoofESNPNs,

 maxnoofForbTACs,

 maxnoofFreqforMDT,

 maxnoofMBSFSAs,

 maxnoofMBSQoSFlows,

 maxnoofMBSServiceAreaInformation,

 maxnoofMBSAreaSessionIDs,

 maxnoofMBSSessions,

 maxnoofMBSSessionsofUE,

 maxnoofMDTPLMNs,

 maxnoofMRBs,

 maxnoofMultiConnectivity,

 maxnoofMultiConnectivityMinusOne,

 maxnoofNeighPCIforMDT,

 maxnoofNGAPIESupportInfo,

 maxnoofNGConnectionsToReset,

 maxNRARFCN,

 maxnoofNRCellBands,

 maxnoofNSAGs,

 maxnoofPagingAreas,

 maxnoofPC5QoSFlows,

 maxnoofPDUSessions,

 maxnoofPLMNs,

 maxnoofPLMNforQMC,

 maxnoofQosFlows,

 maxnoofQosParaSets,

 maxnoofRANNodeinAoI,

 maxnoofRecommendedCells,

 maxnoofRecommendedRANNodes,

 maxnoofAoI,

 maxnoofPSCellsPerPrimaryCellinUEHistoryInfo,

 maxnoofReportedCells,

 maxnoofSensorName,

 maxnoofServedGUAMIs,

 maxnoofSliceItems,

 maxnoofMDTSNPNs,

 maxnoofSNSSAIforQMC,

 maxnoofSuccessfulHOReports,

 maxnoofTACs,

 maxnoofTACsinNTN,

 maxnoofTAforMDT,

 maxnoofTAforQMC,

 maxnoofTAIforInactive,

 maxnoofTAIforMBS,

 maxnoofTAIforPaging,

 maxnoofTAIforRestart,

 maxnoofTAIforWarning,

 maxnoofTAIinAoI,

 maxnoofTargetS-NSSAIs,

 maxnoofTimePeriods,

 maxnoofTNLAssociations,

 maxnoofUEAppLayerMeas,

 maxnoofUEsforPaging,

 maxnoofUETypes,

 maxnoofWLANName,

 maxnoofXnExtTLAs,

 maxnoofXnGTP-TLAs,

 maxnoofXnTLAs,

 maxnoofThresholdsForExcessPacketDelay,

 maxnoofCandidateRelayUEs,

 maxnoofSuccessfulPSCellChangeReports,

 maxnoofCellsTSS,

 maxnoofPeriodicities,

 maxnoofPartiallyAllowedS-NSSAIs,

 maxnoofRSPPQoSFlows

*Next Change*

-- A

AdditionalDLUPTNLInformationForHOList ::= SEQUENCE (SIZE(1..maxnoofMultiConnectivityMinusOne)) OF AdditionalDLUPTNLInformationForHOItem

AdditionalDLUPTNLInformationForHOItem ::= SEQUENCE {

 additionalDL-NGU-UP-TNLInformation UPTransportLayerInformation,

 additionalQosFlowSetupResponseList QosFlowListWithDataForwarding,

 additionalDLForwardingUPTNLInformation UPTransportLayerInformation OPTIONAL,

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

 ...

}

AdditionalDLUPTNLInformationForHOItem-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

 { ID id-AdditionalRedundantDL-NGU-UP-TNLInformation CRITICALITY ignore EXTENSION UPTransportLayerInformation PRESENCE optional },

 ...

}

AdditionalQosFlowInformation ::= ENUMERATED {

 more-likely,

 ...

}

AerialUEsubscriptionInformation ::= ENUMERATED {

 allowed,

 not-allowed,

 ...

}

AdditionalULIofWAB ::= SEQUENCE {

 nRCGI NR-CGI,

 tAI TAI,

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

 ...

}

AdditionalULIofWAB-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

 ...

}

A2X-PC5-FlowBitRates ::= SEQUENCE {

 a2X-GuaranteedFlowBitRate BitRate,

 a2X-MaximumFlowBitRate BitRate,

 iE-Extensions ProtocolExtensionContainer { {A2X-PC5-FlowBitRates-ExtIEs} } OPTIONAL,

 ...

}

A2X-PC5-FlowBitRates-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

 ...

}

*Next Change*

-- U

-------------------skip the unchanged parts-------------------

UserLocationInformationNR-ExtIEs NGAP-PROTOCOL-EXTENSION ::= {

 { ID id-PSCellInformation CRITICALITY ignore EXTENSION NGRAN-CGI PRESENCE optional }|

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

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

 { ID id-MobileIAB-MTUserLocationInformation CRITICALITY ignore EXTENSION MobileIAB-MTUserLocationInformation PRESENCE optional }|

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

 ...

}

*Next Change*

### 9.4.7 Constant Definitions

-- ASN1START

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

--

-- Constant definitions

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

-------------------skip the unchanged parts-------------------

 id-MobileIAB-Supported ProtocolIE-ID ::= 404

 id-CN-MT-CommunicationHandling ProtocolIE-ID ::= 405

 id-FiveGCAction ProtocolIE-ID ::= 406

 id-PagingPolicyDifferentiation ProtocolIE-ID ::= 407

 id-DL-Signalling ProtocolIE-ID ::= 408

 id-PNI-NPN-AreaScopeofMDT ProtocolIE-ID ::= 409

 id-PNI-NPNBasedMDT ProtocolIE-ID ::= 410

 id-SNPN-CellBasedMDT ProtocolIE-ID ::= 411

 id-SNPN-TAIBasedMDT ProtocolIE-ID ::= 412

 id-SNPN-BasedMDT ProtocolIE-ID ::= 413

 id-Partially-Allowed-NSSAI ProtocolIE-ID ::= 414

 id-AssociatedSessionID ProtocolIE-ID ::= 415

 id-MBS-AssistanceInformation ProtocolIE-ID ::= 416

 id-BroadcastTransportFailureTransfer ProtocolIE-ID ::= 417

 id-BroadcastTransportRequestTransfer ProtocolIE-ID ::= 418

 id-BroadcastTransportResponseTransfer ProtocolIE-ID ::= 419

 id-TimeBasedHandoverInformation ProtocolIE-ID ::= 420

 id-DLDiscarding ProtocolIE-ID ::= 421

 id-PDUsetQoSParameters ProtocolIE-ID ::= 422

 id-PDUSetbasedHandlingIndicator ProtocolIE-ID ::= 423

 id-N6JitterInformation ProtocolIE-ID ::= 424

 id-ECNMarkingorCongestionInformationReportingRequest ProtocolIE-ID ::= 425

 id-ECNMarkingorCongestionInformationReportingStatus ProtocolIE-ID ::= 426

 id-ERedCapIndication ProtocolIE-ID ::= 427

 id-XrDeviceWith2Rx ProtocolIE-ID ::= 428

 id-UserPlaneErrorIndicator ProtocolIE-ID ::= 429

 id-SLPositioningRangingServiceInfo ProtocolIE-ID ::= 430

 id-PDUSessionListMTCommHReq ProtocolIE-ID ::= 431

 id-MaximumDataBurstVolume ProtocolIE-ID ::= 432

 id-MN-only-MDT-collection ProtocolIE-ID ::= 433

 id-MBS-NGUFailureIndication ProtocolIE-ID ::= 434

 id-UserPlaneFailureIndication ProtocolIE-ID ::= 435

 id-UserPlaneFailureIndicationReport ProtocolIE-ID ::= 436

 id-SourceSN-to-TargetSN-QMCInfo ProtocolIE-ID ::= 437

 id-QoERVQoEReportingPaths ProtocolIE-ID ::= 438

 id-UserLocationInformationN3IWF-without-PortNumber ProtocolIE-ID ::= 439

 id-AUN3DeviceAccessInfo ProtocolIE-ID ::= 440

 id-AdditionalULIofWAB ProtocolIE-ID ::= xxx

*End of Change*